



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of National Marine Sanctuaries
Stellwagen Bank National Marine Sanctuary
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38th SANCTUARY ADVISORY COUNCIL
5 March 2013 9:30 am – 3:30 pm
Holiday Inn, Rockland, MA
MINUTES of MEETING

Present:

Bill Adler	Member:	Fixed Gear Commercial Fishing
Jennifer Anderson	Federal:	National Marine Fisheries Service
Michelle Bachman	Federal:	New England Fisheries Management Council
Priscilla Brooks	Member:	Conservation
Todd Callghan	State:	Mass Coastal Zone Management
CPT Peter DeCola	Federal:	USCG
Rich Delaney	Member:	Education (Executive Committee Chair)
Jessica Freedman	Member:	Youth
John Galluzzo	Alternate:	Maritime Heritage
Vito Giacalone	Member:	Mobile Gear Commercial Fishing
Jonathan Grant	Alternate:	At Large
Whit Manter	Member:	At-Large
Chris McGuire	Alternate:	Conservation
Rob Moir	Member:	Conservation
Tim Moll	Member:	Business/Industry
Rick Murray	Member:	Research
Maj Len Roberts	Federal:	Mass Environmental Police
David Robinson	Member:	Maritime Heritage
Chad Smith	Alternate:	Diving
Michael Sosik	Member:	Recreational Fishing
Brad White	Alternate:	Recreational Fishing
John Williamson	Member:	At Large (Secretary)

SBNMS Staff:

Craig MacDonald	Matthew Lawrence	Anne Smrcina
Ben Cowie-Haskell	Deborah Marx	Elizabeth Stokes
Brad Cabe	Caitlin Jensen (NOAA Intern)	Mike Thompson

I. Welcome, Review of Agenda and Approval of 37th SAC Minutes (Rich Delaney)

The Agenda was reviewed and approved. The 37th SAC Minutes were reviewed and accepted (unanimous).

II. Discussion Topics (Rich Delaney)

i. Council Round Robin

SAC members and alternates introduced themselves and provided brief updates on issues within their respective organizations.

ii. Site Evaluation List Letter from SAC Chair to Acting Secretary of Commerce

This SEL reactivation topic was discussed at the SAC meeting in October 2012, at which time the SAC agreed that, as a stakeholder of the sanctuary program, it was important to send a letter asking NOAA to reactivate the Site Evaluation List (SEL). Rich Delaney received a letter from Dan Basta, Director ONMS Program, acknowledging that he received the letter the SAC sent to him (as well as to Drs. Blank and Lubchenco) that expressed collective support for reactivating the SEL. Dan Basta stated that he appreciates the SAC's support as he continues to pursue this important issue and will transmit the SAC's letter of support to the agency's leadership.

iii. SBNMS Programmatic Updates (Craig MacDonald)

Craig MacDonald provided an overview of the programmatic updates compiled by SBNMS staff. This report is sent to SAC members before each SAC meeting. It summarizes progress and future steps in the various programmatic areas and is sent by email rather than having staff provide oral briefings at each SAC meeting. (See Appendix for a summary of programmatic updates for this reporting period).

Craig noted that for cost savings reasons, the Stellwagen *BankNotes* newsletter is now sent out electronically rather than in hard copy format. Switching to an electronic version now makes it possible to email a new issue every two months (or sooner if sanctuary news and events warrant additional issues). For each new issue, email notices are sent to a distribution list announcing the publication's availability with links to the sanctuary website. The SBNMS email list of newsletter subscribers is growing steadily. The publication increases its reach through notices on a number of electronic bulletin boards and listserves. SAC assistance in distributing this publication is appreciated. SAC members should contact Anne.Smrcina@noaa.gov to provide any group contacts or individual readers who would be interested in being added to the newsletter subscriber list.

There is also a 2013 Marine Art Contest Calendar picturing artwork from the 2012 Marine Art Contest that can be downloaded from the SBNMS website. The 2012 winning artwork is also touring venues in Gloucester, New Bedford, Boston, and Provincetown, MA (Center for Coastal Studies). Please contact Anne.Smrcina@noaa.gov for a list of locations or visit the SBNMS website from <http://stellwagen.noaa.gov/>.

III. New SAC Issues (Craig MacDonald)

i. SAC Vacancies and Recruitments

Currently, there are three (3) vacancies: Education Alternate to Rich Delaney; Business Industry Alternate to Tim Moll; and Youth Seat Alternate to Jessica Freedman. In the future, HQ will standardize mass recruitments across the sanctuaries on a quarterly basis through Federal Registry Notices, which will result in cost savings for the sanctuary program. But this particular recruitment round will be done separately. It is hoped to have the seats filled by the next SAC meeting.

ii. Revised SAC Charter

The SBNMS revised Charter was emailed to all advisory council members and alternates. Previous Charter amendments that were agreed upon through SAC motions were incorporated in the revised Charter as well as several standardizations required by HQ which were made to all of the charters across the sanctuaries. The newly-revised Charter will be posted to the SBNMS website.

iii. ONMS Standardized Website Requirements

The Sanctuary Program is trying to raise national visibility of the sanctuary advisory councils across all sites. One of the ways to do this is by a number of website updates so that the SAC has greater presence. A number of changes have already been made including locating the SAC (with its own tab) on the main SBNMS webpage and populating the SAC weblink with more information. The next HQ tasking is to have a profile of each council member posted to the website by 1 April. SAC members are asked to submit a brief bio along with a .jpg photo to Elizabeth.Stokes@noaa.gov so that the 1 April deadline can be met.

iv. Recap of 2012 Advisory Council SAC Summit/Campaign of Engagement (Rich Delaney)

The Office of National Marine Sanctuary (ONMS) Program convened its annual SAC summit in Monterey, CA 4-6 December 2012. All 14 SAC Chairs attended from throughout the sanctuary program. The theme this year was to have SAC Chairs along with ONMS HQ staff compare notes on how advisory councils operate throughout the different sanctuaries and to share “lessons learned” on advisory council issues. Discussions were held focusing on two particular themes: 1) expanding the visibility and constituencies of SACs and sanctuaries in general, and 2) as a parallel track, looking at examining SAC relationships through tourism, recreation and travel industries, due to the sanctuaries’ natural proximity to some of these activities. Rich provided the highlights from recommendations generated at the SAC Summit which he hoped would prompt some discussion or even possibly create a small subcommittee of the SAC to work on steps that would bring more sanctuary visibility through constituencies and to build better relationships with the tourism, recreation, and travel industries. First part of the discussion at the Summit was focused on getting a feeling for the sanctuary as a sense of place and what the value of that place is. Sanctuaries are unique areas of our regions -- not just an ecological and cultural value, but also an economical value. This message can be taken to a broader constituency by collaborating with chambers of commerce, visitors bureaus, and other agencies to communicate the values and benefits of sanctuaries, and by engaging youth by providing sanctuary-related educational opportunities, and to collaborate with other protected areas to develop inter-governmental relationships (e.g., National Park Service, National Fish and Wildlife Service, etc.). All of this is highlighted in the “Campaign of Engagement” brainstormed by ONMS Director, Dan Basta, and the ONMS program, which Rich Delaney will send along to the SAC.

Comments and Discussion:

Craig MacDonald: A good example is the National Seashore Exhibit in Provincetown that provides a space for sanctuary signage as well as an AIS exhibit. The sanctuary also has an exhibit at Halibut Point State Park with an AIS receiver similar to that in Provincetown. These two exhibits lend themselves nicely to outreach. There is also traveling Marine Art Exhibit. More could be done with the Waquoit Bay Estuary Research Reserve and others to find opportunities for outreach, especially if there is exhibit space available. SBNMS is a member of the Cape Cod Chamber of Commerce and has passed out thousands of newsletters and brochures every year at tourism information centers on Route 6 and Route 3, exit 5 on Cape. Maybe the SAC could have a member of a local Chamber of Commerce as a SAC Alternate for the Business/Industry seat (that is presently vacant).

John Galluzzo: Mass Audubon has several partnerships in place as well with SBNMS. Two really big anniversaries coming up that we might want to jump into: 100th Anniversary of the Cape Cod Canal where a lot of events are being planned as well as the 400th anniversary of the Pilgrims arrival in Plymouth.

Rich Delaney: The true value of what the sanctuary “is” is not well known. Could reach out to watershed associations and fishing partnerships. Need to get the word out. Step up the focus on national discussion and debate to the real value of what a sanctuary can do. Strategy includes the Sanctuary Evaluation List to allow a lot of interest throughout the country to become more engaged.

Craig MacDonald: The Sport Fishing Conservancy teamed up with the sanctuary program and a dozen sponsors across recreational fishing organizations and associations, called the "Sanctuary Classic" which was initiated last year in Monterey, CA. It's a photo contest for children and adults that supports scholarships. SBNMS has been chosen as one of the sanctuaries to hold the "Sanctuary Classic" this year. This is an excellent opportunity to involve the charter party fishing and marine trade associations and to get the word out to boaters. It's not just fishing within the sanctuary, but also in Massachusetts Bay. A kick-off to the fishing contest may be a 'best practices' workshop, catch and release, how to deal with barotrauma. NMFS is also a partner in this effort. More details to follow.

Tim Moll: The marine trade industry is very active and has spent quite a bit of time with zoning and mapping recreational boaters to determine how it translates into jobs and dollars, as they travel up and down Buzzards Bay and other local destinations along the coast. SeaPlan is very eager to interface with other groups beside Marine Transportation Association to learn the economic value. Working on promoting this to see how much usage is out there and how many dollars are spent. Boats require servicing, boaters shop, patronize local restaurants, shops, etc., but all of this is hard to quantify. The Mass Marine Trade Association is very active in this respect. SBNMS spends a lot of time on public education and outreach in schools and locally. But a lot of boaters travel through the sanctuary and have no idea they are in a sanctuary. There needs to be more outreach effort geared toward boaters. Plymouth has 1,300 transient boats visit every summer; this is a fair amount of economic impact. Need to make boaters aware of the sanctuary.. Reach them where they keep their boats (marinas and docks). The whale watch industry is huge.

Rick Murray: Get message out through Chambers of Commerce. There are 800 transient boats in Scituate alone. Work with North and South watershed associations who are hard at work to restore herring runs in Marshfield and Scituate areas in particular (i.e., biological tie between herring and groundfish and for SBNMS this is an active goal of research). Look at opportunities with watersheds in Cape Cod Bay.

John Galluzzo: Was planning to work with the Plymouth County Business Review to do an article on the economic value of SBNMS but the magazine folded. But is happy to explore all kinds of ideas with visitors' bureaus.

Rob Moir: Reach out to boaters in the sanctuary.

Chad Smith: Local diving community – outreach efforts have been excellent from sanctuary staff but need to promote access to scuba diving in the sanctuary. Cannot stress enough that scuba divers bring money to local gear shops and charter boat companies and become advocates for the sanctuary.

John Williamson: Look at how various sanctuaries use their "friends groups", external funding. *Stellwagen Alive!* was created 5 years ago, and was initially formed by three SAC members; not doing nearly as much as it could; there is an untold opportunity out there to brand SBNMS and create a bond with the population. *Stellwagen Alive!* is a tool of the SAC. There is a Facebook page and an outstanding YouTube video on marine debris removal. Need more people to help with outreach and to be part of *Stellwagen Alive!*

Chad Smith: PADI, the dive agency, has a program to identify dive operators as a "PADI 5 Star Facility" that fall under certain guidelines. This gives people a brand to recognize when they are unfamiliar with business in an area or are starting a new activity. The Sanctuary could develop a "Sanctuary Ambassador" or similarly named program with the NOAA and Sanctuary logos to identify operators who comply and assist in the Sanctuary mission and could be as recognizable as the Parks Department logo or the PADI logo. Travelers see the familiar brand, use responsible operators, Sanctuaries is identified as "Ambassadors" and the list of these businesses, for each sanctuary can be listed on the web.

Brad White: Need to come up with something more friendly for the sanctuary user. A 2-3 minute YouTube video could be made that includes all sanctuary disciplines that talks to the sanctuary user in a fun, educational, and smart way. There are thousands of people who come out to the Bank every year. Maybe come up with a flashcard system that could be provided to boaters with types of whales, bird species, and other marine life in the sanctuary. It could be sold for a small profit and is a great way to educate the general public. People want to know about the birds and whales out there. Need to brand the fun that can be had out in SBNMS. Brad is willing to work with John Williamson and *Stellwagen Alive!* on this. *Wicked Tuna* is not the way the sanctuary should be represented and is surprised that National Geographic underwrites it.

Priscilla Brooks: Social media — this is a powerful way to get the word out about the sanctuary. SBNMS has begun social media —a Facebook page, Twitter. There are so many opportunities to do different things with social media. Collaborating a little more on that social media aspect could broaden everyone's effort for SBNMS to outreach.

Vito Giacalone: *Wicked Tuna* is not the way commercial fishing wants to be represented. The commercial fishing industry has been the longest stakeholder in the sanctuary. Whatever is done, he hopes there is room acknowledging this. They are under siege unfortunately in a lot of directions and trying to figure out how to settle in for the next five years and survive the latest rounds. Hard to get some of the in-shore fleet groups engaged in some of these outreach type things. Keep them in mind when there is public outreach on the value of Stellwagen — that there is interaction with them and acknowledge them as well. Keep it all in one format.

Rick Murray: *Stellwagen Alive!* could put together a 30-minute video and market it to community TV, you'd get thousands and thousands of viewers. People watch.

Craig MacDonald: Back in 1990, the Sanctuary commissioned a study by Boston University marketing department to look at some of the attitudes of visitors on whale watch boats in the SBNMS. What they learned was that, if the whale watch companies were advertising that they were taking their clients out to Stellwagen Bank National Marine Sanctuary as opposed to Stellwagen Bank, that their clients were more apt to go on a whale watch. And if their naturalists actually told their clients that they were in SBNMS, they would be more likely to get repeat business. The name SBNMS has marketing cache. There is only one whale watch company that incorporates SBNMS as a destination in their marketing and that is Steve Milliken's Dolphin Fleet Whale Watch Company. The Sanctuary has a marketing cache, the Bank doesn't. We've decided we want to work with the Mass Tourism Commission. In some cases, I just think it's an oversight and it would be so easy to add it to the branding. We also have a new updated SBNMS poster. We can make them available.

Craig added that SBNMS needs sponsors for its *Yellowbook* billboard for this year's marketing campaign. Feedback from last year's billboard has been great. This marketing campaign is open to everyone. Craig will send SAC more information regarding the *Yellowbook* billboard.

Rich Delaney: Will email the SAC Summit "Campaign" documents to all SAC members. Need to take the business component and pull together a small working group. In addition, SAC may want to give some thought to possibly adding a seat on the Council to strengthen this position.

Motion: To convene a subcommittee to make recommendations on ways to expand the SAC capacity for building community connections to extend the sanctuary brand. By community connections, we mean to focus on outreach, business, tourism, recreation, travel and fishing industries. Passed unanimously.

SAC Members and Alternates who volunteered to be on the subcommittee:

John Galluzzo – Alternate, Maritime Heritage
Vito Giacalone -- Member, Mobile Recreational Fishing
Jonathan Grant – Alternate At Large
Rob Moir – Member, Conservation
Chad Smith – Alternate, Diving
Brad White – Alternate, Recreational Fishing
John Williamson – Member, At Large (Secretary)

IV. Constituent Report *Seafloor Mapping for the Location and Characterization of Natural Resources, Shipwrecks and Derelict Fishing Gear* (Mark Borrelli - PCCS). Dr. Borrelli presented on the PCCS Seafloor Mapping Program. For more information regarding the program as well as ongoing seafloor mapping projects, please visit their webpage at <http://www.coastalstudies.org/what-we-do/land-sea/nearshoremapping.htm>.

V. SAC Leadership Award Presentation to Bill Grafton, *Stellwagen Alive!* The SAC Leadership Award was presented to Bill Grafton, Acting Executive Director of *Stellwagen Alive!* The nomination reads, "Acting as treasurer and clerk for *Stellwagen Alive!* -- Friends of Our National Marine Sanctuary, Bill has been instrumental in putting the organization on a businesslike foundation. He has taken personal interest in guiding the "Stellwagen Sweep" program, which will have disposed of 50 tons of derelict fishing gear in 2012 alone. Bill has also represented *Stellwagen Alive!* at promotional events calling attention to the Sanctuary program."

VI. Working Luncheon – *Stellwagen Alive! Fathom That* (John Williamson/Bill Grafton)

Bill Grafton, Acting Executive Director of *Stellwagen Alive!* Friends of the National Marine Sanctuary and Anne Smrcina, the sanctuary's Education and Outreach Coordinator, provided input on the new *Fathom That!* project, which will go live by the end of April. The program uses cell phone technology as well as signage and a mobile website to disseminate information about sanctuary resources, research and "tales from the bank." The first five Sea Spots with *Fathom That!* S— signs and messages are now in development, and additional land-based sites are being secured. A variety of general information messages have been completed for both the audio and mobile website sides of the project. Individuals can access *Fathom That!* by calling 781-304-1013 and then dialing a specific extension to reach unique messages. For those individuals with smartphones, the mobile website provides supplementary material, including images, videos and text, to extend the cell phone message. The audio component consists of timely news messages, informational messages (some recorded by internationally-renowned master storyteller Jay O'Callahan), and "theater of the mind" stories (professionally recorded with music and sound effects). SAC members were invited to review the messages and website as developed to date and submit comments and corrections/additions to Anne Smrcina (website address is: <https://bycell.mobi/stellwagen>). If organizations are interested in hosting a sign and message, they should also contact Anne (781-545-8026 x204 or anne.smrcina@noaa.gov) or Bill Grafton (508-221-4680 or wgrafton@stellwagenalive.org).

John Williamson remarked that other friends' groups are following this. Donations can be made by smartphone to keep the project going and the technology updated.

VII. Status of Gulf of Maine Cod Situation (Michael Palmer – NMFS/NE Fisheries Science Center)

Following is a summary of Mike Palmer's presentation on the role of fine-scale spatial dynamics on *Stellwagen Bank*:

The presentation was a retrospective critique of why the 2008 Gulf of Maine (GoM) cod assessment was inaccurate in its prediction that cod was not overfished and was on track to be rebuilt. Mr. Palmer structured his presentation around answering several questions:

1. How can the results from the 2011 assessment be so different from the 2008 assessment?
2. How can the 2011 and 2012 assessments be so different from fishermen's perceptions of cod catch?

The answers to these questions are a combination of structural problems with the 2008 assessment model (VPA), overlooking some clues from the 2008 assessment, and the unforeseen effect of sand lance on aggregating cod. The assessments analyzed data from 1982-2010.

The following summarizes the answers to the two questions.

1. How can the results from the 2011 assessment be so different from the 2008 assessment?
The 2008 benchmark assessment indicated that GoM cod was not overfished and that it was on track to be rebuilt. The assessment was heavily influenced by two large year classes in 2003 and 2005 which, in retrospect, were clues of an underlying problem with the GoM cod population. The 2011 assessment, utilizing a different model and updated parameters, revealed a much less rosy assessment of the status of cod. To verify the results of the 2011 assessment, another assessment was conducted in 2012, which corroborated the results from 2011. The 2012 assessment revealed that GoM cod spawning stock biomass had declined, fishing mortality was high, and that recruitment was weak. Since the mid-1990s the distribution of cod has become increasingly concentrated in the western portion of the GoM, with a gradual loss of cod in the coastal and central GoM.

The 2003 and 2005 cod year classes heavily influenced the 2008 assessment. Each of those years the Northeast Fisheries Science Center research trawl surveys had a single large tow of cod. These tows occurred on Stellwagen Bank. The periods of highest cod catches on Stellwagen Bank corresponded with periods of high sand lance abundance. Cod catches in the GoM tend to be greater when cod are actively feeding on sand lance. Stellwagen Bank is the hotspot for cod-sand lance consumption in the GoM.

2. How can the 2011 and 2012 assessments be so different from fishermen's perceptions of cod catch?

Landings-per-unit-effort (LPUE) increases, as derived from commercial fishing effort, coincided with increases in sand lance abundance, both began around 2006 and peaked in 2009/10. Because of the aggregation effect of sand lance, LPUE derived from the commercial fishing industry were largely independent of broad-scale patterns across the GoM, but rather reflective of the small-scale dynamics occurring on Stellwagen Bank. In other words, the abnormally high commercial catch of cod on Stellwagen Bank was creating the perception that stocks were healthy while masking the underlying problems of lower spawning stock biomass, decreased recruitment, and high fishing mortality. Upon closer inspection it turned out that by 2010 five 10 square mile squares accounted for 65% of the total GoM cod landings. One of those squares (427044) accounted for 45% of the total landings. Square 427044 covers the NW corner of Stellwagen Bank. Between 2005 and 2010: outside of 427044 there was a 46% decrease in trips and 36% decrease in vessels; inside 427044 there was a 191% increase in trips and a 45% increase in vessels.

Mr. Palmer concluded by pointing out that the Stellwagen Bank region is an extremely important area for GoM cod resource and that the importance of sand lance with respect to cod dynamics requires a greater understanding.

Comments and Discussion:

Vito Giacalone: Gave several statistics regarding regulations and restrictions on cod catches including Framework 42 that have affected cod stocks. Industry participated heavily in Framework 42. No commercial fishery on sand lance so not surprised to see a correlation to sand lance concentration and high cod abundance.

Michael Sosik. Just returned from a national meeting of charterboat operators. There were repeated stories from charter boaters about how they are unable to stay away from cod and they're fishing from North Carolina through Delaware to New Jersey. They're catching large cod. It seems that cod is showing up farther south. Are there sand lance there? Do cod follow sand lance? Would be interested to know if GMRI is receiving tracking data from tagged cod and where is it coming from.

Michael Palmer responded that he didn't show a correlation between cod and sand lance and talked about cod tagging data used in his study.

Bill Adler: Not sure if the Georges' Bank cod stock are as in dire straits as that of the Gulf of Maine. Also didn't know whether sand lance were in warmer waters; do they leave like some of the other species? There is a lot of talk about species not being found and most of the blame seems to be on the water temperature changes. Because it certainly isn't fishing, that's gone downhill because of rules, so it's not that there are more fishermen. Water temperature has done something and one of the arguments is to be looking in the right place. How is the cod stock in George's Bank?

Michael Palmer: George's Bank cod is actually in poorer shape than the Gulf of Maine. Don't know why it's not recovering. Don't know about sand lance dynamics so don't know how they respond to warmer temperatures. More study is needed to take a closer look at how cod in the Gulf of Maine respond to changes in temperatures.

Brad White: Sees a lot of sand lance because of tuna. Something not mentioned in the cod study is the seal connection. There are thousands of seals out there eating cod. Maybe some effort needs to be given to looking at natural predators. You see sand lance and you see a lot of seals. Warmer water, fewer seals, more cod.

Michael Palmer: This is something that really needs to be further investigated.

Craig MacDonald: The Stellwagen Bank region is an extremely important area for the GofM cod resource. The importance of sand lance with respect to cod dynamics requires a greater understanding. This statement might need to be incorporated into the SERA II proposal as it goes forward in the NEFMC.

Michelle Bachman. Talked about surveys and data regarding aggregations and clustering of fish in the southwest Gulf of Maine, around Stellwagen Bank, Jeffries Ledge and other areas that NEFMC is evaluating. An interesting thing that the CATT hasn't really talked about, and the PDT has sort of talked about as a side bar not in the terms of designing management areas is the question of sand lance and its importance to cod, trying to understand where sand lance are located. She is pretty comfortable that in terms of capturing aggregations of sand lance in survey trawls and that we're covering that in the analysis of the CATT.

Rich Delaney: What is the prevalence of sand lance in SBNMS -- seems like this is a missing piece of science and critical to the ecosystem.

Michael Palmer: Not a lot of information on sand lance available.

(Back and forth on data and analysis being done on cod assessment)

Craig MacDonald: SBNMS is using humpback whale as a proxy for sand lance abundance within the sanctuary but need viable data.

VIII. Agency/Governmental Reports

i. NEFMC Report & SERA II Status (Michelle Bachman).

Michelle Bachman presented the NEFMC report and provided the following summary:

- Change in Council leadership – new Executive Director Thomas A. Nies as of March 1.
- Management actions pending review/implementation:
 - Two groundfish actions being submitted/reviewed – Framework 48 (exemption areas, other changes to FMP), Framework 50 (specifications). Development of Amendment 18 (fleet diversity) is recommencing starting with a Groundfish Committee/Advisory Panel meeting on March 6.
 - Herring specifications package being submitted to NMFS soon. Annual catch limits increased from current levels to 107,800 metric tons.
 - Scallop Framework 24 will be implemented soon; the action includes specifications for the 2013 fishing year, which started March 1.
- Habitat amendment: two tracks of management area development are continuing to move forward and will be reconciled prior to the June NEFMC meeting.
 - First track – habitat management areas and dedicated habitat research areas
 - PDT meeting March 6 – will be discussing SERA II and other research areas, including specific goals/objectives and implementation issues. PDT will also discuss the issue of SERA II as single habitat/groundfish management area in the region, but this issue will likely not be reconciled until after the CATT has made groundfish management recommendations (see below).
 - Committee meeting March 19 – will be discussing refinements to research area and habitat management area proposals
 - Second track – groundfish management areas for juveniles/juvenile habitats (age 0 and 1, most likely year-round) and large adults/spawners (possibly seasonal)
 - Closed Area technical team is mapping clusters of juveniles and spawners across various species and seasons/surveys, as well as modeling juvenile distributions according to habitat variables such as depth, temperature, etc. Three days of meetings in March with intent to develop a range of management area recommendations for Committee review mid-April; Council review late April
 - Committees (Habitat/Groundfish) and technical groups (PDT/CATT) will reconcile two sets of management areas in May
 - Council approval of alternatives for analysis in EIS anticipated in June

Comments and Discussion on status of SERA II within the NEFMC process:

John Williamson. Opportunity to get SERA II further down the road but concerned that all of the designated habitat research areas will not be used for research. There is intent to make certain that this happens. Does the council need to hear this?

Michelle Bachman: SERA II does have broad ranging and industry buy-in support. It seems to resonate with the Council. The NEFMC is getting the message that there is a strong institutional and logistical backing behind getting stuff done now in the SERA area. It can't hurt for people who are interested to come and give recommendations and testimony at the meetings.

Back and forth with John Williamson about the ongoing SERA process within the NEFMC (Michelle Bachman, Rich Delaney, John Williamson).

Vito Giacalone: A little nervous about not being integrated timing wise into the CATT. Is there something the SAC can do that would help the CATT understand that one of the wishes is that the SERA II would meet all of those criteria?

Michelle Bachman: Heavily involved with the CATT. They are well aware of SERA II, SBNMS, and Jeffreys Ledge. Talked about areas being evaluated and the process. It will be raised again at the March committee meeting as a question for the committee -- do we want to move multiple areas forward and how will it be supported by industry?

ii. NOAA Fisheries Regional Report and Whale Sense (Jen Anderson)

Jen Anderson presented the NMFS report and provided the following summary:

Harbor Porpoise Take Reduction Plan Update

- The HPTRT met via webinar on February 13th and 14th.
- After the meeting in November the Team was tasked with developing proposals to address possible changes to the plan.
- The February meeting was spent discussing these proposals and whether the Team thought the plan should be completely modified or just focus on updating a few portions of plan--mainly the Consequence Closure Strategy.
- The Team will meet in early April to continue these discussions.

Whale SENSE Update

- 2013 will be the fifth season the program has been implemented.
- Video on Whale SENSE was produced by NOS's Ocean Today program. The video is available for viewing and download on Ocean Today's website (<http://oceantoday.noaa.gov/whalesense/>)
- Boston's Best Cruises is enrolling in the program. In discussions with Nantucket and additional two NJ companies for their participation. If these additional three companies enroll, the total number of participants will be 12 and will represent approximately 1/3 of the whale watching industry from Maine through Virginia.
- Planet Whale is an international whale watch search engine/trip advisory. Whale SENSE is being featured on Planet Whale (www.planetwhale.com). Any time someone searches for a U.S. whale watching company, an advertisement for Whale SENSE will be displayed and linked to our list of participants. Planet Whale is also featuring a See a Spout Watch Out video on their homepage.

Atlantic Large Whale Take Reduction Plan Update

- A draft environmental impact statement (DEIS) is under development. The current timeline has the proposed rule and DEIS publishing in late summer 2013.

Proposal to Increase Monkfish Catch

- NMFS announced proposed measures that would suspend the monkfish possession limit for vessels fishing in the Northern Fishery Management Area while on a groundfish or monkfish day-at-sea. Public comments are being accepted through March 12, 2013.

IX. New Business (Craig MacDonald)

The *R/V Auk* crew are winners of the National Ocean Service (NOS) Safety-Pro Award for 2nd Quarter, Fiscal Year 2013. Congratulations to Captain Bob Wallace, Mates David Arch, Chris Fosdick, and Stephen Kibner. Since NOS acquired the *R/V Auk* in 2006, Captain Wallace and his crew have conducted more than 380 research missions involving approximately 2,500 passengers without incident. This excellent safety record is a direct result of the captain and crew's diligence in providing safety briefings to passengers prior to every mission; ensuring adherence of passengers to safety protocols during the course of the mission; conducting safety drills throughout the year; and maintaining the vessel and safety in proper working order.

X. Public Comment. None.

XI. Adjourn: 2:45 pm.

APPENDIX

SBNMS PROGRAMMATIC UPDATE – Winter 2012/2013

EDUCATION AND OUTREACH (Anne Smrcina):

EDUCATION

2012 Student Marine Art Exhibit – The collected winning artwork from this year’s Marine Art Contest continues on its 2012-2013 tour. The show was installed at the J.F.K. Federal Building in Boston’s Government Center in mid-January. It will remain there until the end of February when it will move to the Salem National Historic Site visitor center. Subsequent stops will be the New Bedford Oceanarium for the month of April and NOAA Fisheries NE Regional Office in Gloucester in May.

2013 Student Marine Art Contest -- The annual Marine Art Contest for students in grades K-12 is now underway. The contest is sponsored by the Massachusetts Marine Educators, with co-sponsorship by the sanctuary, NE Aquarium, Provincetown Center for Coastal Studies, Whale and Dolphin Conservation and Stellwagen Alive. The theme of the contest is “Amazing Ocean Creatures of Stellwagen Bank National Marine Sanctuary.” The sanctuary’s education coordinator, who is also on the Board of MME, is the contest director. A brochure for the contest has been developed and placed on both the MME and SBNMS websites and distributed widely to educators in the region. The deadline for this year’s contest is April 25.

Boston Harbor Educators Conference –The fall conference had Stellwagen Bank sanctuary’s 20th anniversary as its theme. Conference evaluations have been compiled and they were overwhelmingly positive, with several attendees noting that this was the best harbor ed conference ever offered. A number of sanctuary staff, SAC members and sanctuary education partners gave technical talks and/or led workshops during the day.

Undergraduate Course with Massasoit Community College – A three credit introductory science course was offered through Massasoit Community College last fall with very positive reviews. We attempted to offer this course at a field location in the spring (Norwell’s South Shore Natural Science Center) but could not attract enough attendance. We intend to offer the course again in the fall in Brockton, with the overall goal of evolving the program into an online offering.

PUBLICATIONS

Stellwagen Bank E-Notes – The sanctuary’s new online publication, E-Notes was web published in Sept., and Dec. and a Feb. issue is in the works. The intention is to post a new issue every two months (or sooner if sanctuary news and events warrant additional issues). For each new issue email notices are sent to a distribution list announcing the publication’s availability (with links to the website). Our email list of newsletter subscribers is growing steadily. The publication increases its reach through notices on a number of electronic bulletin boards and listserves. SAC assistance in distributing this publication is appreciated. Contact anne.smrcina@noaa.gov to provide any group contacts or individual readers.

Map/Poster Reprinting – The well-loved sanctuary map has being reprinted. As in the past, we are distributing bulk quantities to “distribution centers” around the region (education partners, tourism offices and other locations) in an effort to reduce our mailing costs and to make it easier for the public to acquire personal copies. If you would like your organization to serve as a distribution center, contact Anne Smrcina.

Fact Sheets – The sanctuary continues to produce fact sheets on an as-needed basis. If there is a topic you would like to see covered in a fact sheet, please see Anne Smrcina.

OUTREACH AND MEDIA

Press Releases/Media Advisories/Feature Stories – Media contacts were primarily geared to responding to requests for information, photos and interviews regarding the issue of whales and sound (Leila Hatch responded to most of these requests).

Fathom That! Audio Cell Phone Tour – The sanctuary and Stellwagen Alive are actively working to finalize the audio cell phone tour, which may potentially reach large numbers of listeners throughout the sanctuary region. Tailored messages have been crafted for specific locations; some of these messages will be stories with a long shelf-life while others will be updated regularly with timely information. The tour (publicized via signage, media advisories, printed materials) will be accessible via standard cell phones. QR codes will allow smartphone users to access a mobile website for additional audio-visual materials, including maps, videos, photos and background information. Version 1.0 of the mobile website has been completed, but can be immediately updated as new information becomes available or if new host sites join the program. It's a new way of exploring the sanctuary – fathom that! Come talk to us about having your facility become a Sea Spot on the cell phone tour.

EXHIBITS (Deborah Marx and Anne Smrcina)

Animals Without Passports exhibit migrates to the Provincetown Center for Coastal Studies: The Animals Without Passports exhibit has ended its time at the Cape Cod Museum of Natural History in Brewster, MA. The exhibit follows the humpback whale's migration between North Atlantic feeding grounds and Caribbean breeding grounds and showcases information on the Stellwagen Bank National Marine Sanctuary's sister sanctuaries program. Additionally, the exhibit describes the various hazards humpback's face as they journey across ocean borders. While on display at the Cape Cod Museum of Natural History, the sanctuary provided additional marine mammal related joint programming. The museum receives annual visitorship of over 40,000 people and is consistently recognized as one of the best museums on Cape Cod. The exhibit's new location at the Provincetown Center for Coastal Studies in Provincetown, MA places it in one of the sanctuary's gateway cities and launching point for hundreds of whale watching trips annually. The Provincetown Center for Coastal Studies has been a strong sanctuary supporter dedicated to preserving and protecting marine mammals and ecosystems in the Gulf of Maine through applied research and education. Exhibit funding provided by the Office of National Marine Sanctuaries and National Marine Sanctuary Foundation.

Significance: This exhibit directly relates to NOAA's mission of conserving marine resources by communicating to the public, from local to national levels, the value of such resources, particularly Stellwagen Bank's humpback whale populations. The exhibit also allows visitors a unique look into the issues impacting the marine ecosystem, as well as encouraging each person to examine the personal role they have in the protection of one of our nation's underwater treasures. For more information contact: Deborah.Marx@noaa.gov

Animals Without Passports Traveling Exhibit Update: The traveling version of the Animals Without Passports is nearing completion and is set to be installed at Mystic Aquarium in Mystic, CT the end of March 2013. Mystic Aquarium, one of America's leading aquariums, showcases the living collections, science and conservation work of the Sea Research Foundation through exhibits and educational programs. Hosting approximately 700,000 visitors annually, the Mystic Aquarium is open year-round and is Connecticut's largest non-casino attraction. Sanctuary staff is continuing to work with the vendors to complete the exhibit fabrication which is based off the version designed for the Cape Cod Museum of

Natural History. The traveling exhibit will be on display at Mystic Aquarium through the end of 2013. Exhibit funding provided by the Office of National Marine Sanctuaries and National Marine Sanctuary Foundation. For more information contact: Deborah.Marx@noaa.gov

Stellwagen Bank Sanctuary Kiosk Installed at Bass Pro Shops: NOAA's Stellwagen Bank National Marine Sanctuary staff installed an interactive touch screen kiosk at Bass Pro Shops in Foxborough, Mass. in December 2012. The 140,000-square-foot Bass Pro Shops' outdoor retail superstore at the new Patriot Place, located adjacent to Gillette Stadium, attracts 1.2 million visitors annually from all over New England. Through the touchscreen, users learn about sanctuary research, educational and outreach programs, and tourism opportunities. The kiosk offers real-time weather information from the National Weather Service, a publication rack stocked with sanctuary materials, and a kid's corner where children can learn about marine life in a fun and entertaining way. The kiosk was funded by the Office of National Marine Sanctuaries, Stellwagen Bank National Marine Sanctuary, and the National Marine Sanctuary Foundation. Significance: The kiosk offers a high-impact multimedia showcase of the sanctuary's ocean treasures. Maintaining the ONMS's commitment to outreach and education, the kiosk will promote NOAA's ocean education and resource protection goals in a high-traffic location, coinciding with the busy holiday shopping season. For more information contact Deborah.Marx@noaa.gov

Provincetown MacMillan Wharf Kiosk – The new kiosk on MacMillan Wharf looks great, with colorful images and timely information. The content in the panels reflects interests expressed by Provincetown wharf users and visitors. We are may schedule some sort of “opening” at the start of the whale watch season in the spring.

New England Aquarium Signage – The sanctuary is now working with the New England Aquarium to rewrite/redesign the backlit panels near the sanctuary tanks on the upper Cold Water Gallery level. This project was made possible by funding from the National Marine Sanctuary Foundation. The first set of signs were reviewed in late January.

Seacoast Science Center/NERACOOS/SBNMS Exhibit – An exhibit on sanctuary whale research is being developed for the Seacoast Science Center in New Hampshire by NERACOOS, the seacoast center and the sanctuary. Programming for the touchscreen kiosk is underway. The exhibit partners expect an April opening.

SOCIAL MEDIA (Deborah Marx)

SBNMS continues to actively use social media to connect with its constituents. In 2012-2013, virtual visitors from across the United States and the world learned about the sanctuary and NOAA's ocean conservation efforts through visits to SBNMS Facebook and YouTube social media sites. SBNMS established its Facebook page (<http://www.facebook.com/SBNMS>) in April 2009. To date it has over 1,200 “Friends” i.e. subscribers to the sanctuary's posts. New posts are added to the page at least once a week by Deborah Marx with content input from SBNMS staff. SBNMS established its YouTube page (<http://www.youtube.com/user/SBNMS>) in May 2007. To date it has over 79,000 video views and almost 300 subscribers. All video production is done in house by Matthew Lawrence and Deborah Marx. In 2012, staff increased its social media presence with a Twitter account (<http://twitter.com/noaasbnms>). The sanctuary's Twitter name is NOAASBNMS. To date we have over 100 followers. For more information about the sanctuary's social media program contact Deborah.Marx@noaa.gov

MARITIME HERITAGE (Deborah Marx and Matthew Lawrence):

RESEARCH

Staff archaeologists are conducting archival research related to the FISSH project and Helgoland saturation diving habitat used by NOAA researchers to study spawning herring in 1975. Matthew Lawrence has been in touch with several of the mission's participants and has secured copies of their logs, photographs, and other project related materials. This information will augment the project collection held by the University of Connecticut's Northeast Underwater Research Technology and Education Center.

OUTREACH

Maritime heritage staff and sanctuary volunteers participated in the 5th Annual Archaeology Fair at Boston's Museum of Science in October 2012. The event was hosted in partnership with the Archaeological Institute of America and Massachusetts Foundation for the Humanities. It coincided with the annual Massachusetts Archaeology Month that highlights archaeology programs and events held around the state. The 2-day fair drew over four thousand school children and families. The event brought together archaeologists and historic preservation professionals from around New England to provide the public with opportunities to learn about archaeology through hands-on activities, live presentations, and special programs. *Significance:* The event allows sanctuary staff to reach out to a broader audience not previously familiar with the sanctuary, its maritime heritage resources, and ocean conservation issues. The partnership with the Museum of Science, Boston and Archaeological Institute of America Area facilitates sanctuary outreach and interpretation efforts through exhibits and special events.

Staff presented on the sanctuary's maritime heritage at the Massasoit Community College sanctuary-focused class and at a meeting of the Bare Cove Power and Sail Squadron in Hingham.

Matthew Lawrence and Donald Sanders, President of the Institute for the Visualization of History (VIZIN), submitted a grant proposal to the NPS's National Center for Preservation Technology and Training to create a highly detailed 3D interactive visualization of the steamship *Portland* shipwreck. Utilizing archaeological derived data, VIZIN has created 3D interactive visualizations of ancient cities in the Near East and Europe allowing the public to virtually wandered the streets of places like Jerusalem and Athens thousands of years ago. VIZIN will apply the techniques learned from the Kyrenia shipwreck site off Cyprus to the cold dark waters of the sanctuary to reveal the *Portland* as if the water were drained from around it.

Exactly 114 years to the hour that US Life Saving Service surfmen began to find wreckage from the *Portland* washing ashore on the Outer Cape Cod beaches, sanctuary archaeologist Matthew Lawrence began relating the *Portland's* dramatic story to attendees of an event to commemorate the steamship's loss hosted by the Fall River Marine Museum. The museum recently opened an exhibit featuring *Portland* artifacts and ephemera. The Stellwagen Bank sanctuary provided historical and underwater imagery of the steamship to highlight the archaeological research on the site. Former sanctuary advisory council diving alternate, Robert Foster, also presented at the event on his team's dangerous SCUBA dives to shipwreck, the first ever made. Following the presentation, those in attendance read aloud a contemporary poem written about the disaster in remembrance of all those who lost their lives on the steamship.

The University of Connecticut's Maritime Studies Spring Capstone class is developing exhibit design material to incorporate ONMS maritime heritage content into a shipwreck exhibit in development at Mystic Seaport, the museum of America and the Sea. Professor Helen Rozwadowski, coordinator of Maritime Studies at the university, and eleven students will undertake background content development

for the exhibit seeking to make connections between Mystic Seaport's collections and sanctuary maritime heritage stories from across the system. Archaeologist Matthew Lawrence will be providing the class with ONMS content for consideration, guidance on the project, and a presentation on ONMS maritime heritage management. The students will present their ideas to the exhibit and fundraising staff at the seaport in May.

OPERATIONS AND SPECIAL PROJECTS (Ben Cowie-Haskell and Dave Slocum):

Vessel Operations

- The RV *Auk* is currently berthed at Plymouth Brewer Yacht yard for the winter.
- RV *Auk* has had one mission this winter to conduct a seabird survey as part of the National Audubon's Christmas Bird Count.
- RV *Auk* is getting retrofitted for a Scientific Computer System which will collect and log meteorological and oceanographic data while underway. The parameters measured will be: wind speed and direction, air temp, relative humidity, barometric pressure, surface water temp and salinity.

Special Projects

- Ocean Acidification (OA) Pilot Study Update. In late 2011, the collaborators (SBNMS, UNH, Univ. of Mass. at Dartmouth, WHOI) deployed a suite of sensors as a pilot project to study acid dynamics near the ocean floor, and to evaluate the feasibility of incorporating ocean acidification monitoring sensors on passive acoustic monitoring moorings already in place in SBNMS. To this end, we deployed calibrated instruments designed to measure CO₂, pH, oxygen, temperature, salinity and beam attenuation on the Traffic Separation Scheme Test Auto Buoy (TSS Test AB) located in a depth of approximately 85m. The second deployment begins the week of March 4 and will end in October.

RESEARCH (Leila Hatch, Dave Wiley, Mike Thompson and Brad Cabe):

CHARACTERIZATION OF UNDERWATER NOISE IN THE SBNMS

(Funded by award to L Hatch, S Van Parijs and C Clark from Exxon Mobil Corp via the National Fish and Wildlife Foundation 2010-2012)

As a continuation of previous three-year funding awarded to the same PIs under the National Oceanographic Partnership Program (NOPP), this winter we continued our collaborative work with researchers from NOAA's Northeast Fisheries Science Center and Cornell University's Bioacoustics Research Program to address multiple questions regarding the locations, behaviors, and potentials for communication masking among several vocally-active species in the sanctuary, including fin, humpback, right and minke whales. In addition to large commercial ship tracking data collected via the Automatic Identification System (AIS) and analyzed by the SBNMS, vessel tracks collected from fishing and whale-watching vessels were used to describe the distribution and densities of these additional non-AIS tracked vessel types. Vessel tracking data were integrated with acoustic data to assess their noise contributions to sanctuary waters and used to broaden the application and accuracy of models used to quantify impacts of this noise to whales' communication capabilities. In addition, through collaboration with Heat Light and Sound Research, Inc. in La Jolla, California, Cornell University was able to significantly improve their

platform for integrating these data, allowing for streamlined processing. NEFSC is taking the lead on the next scientific publication to emerge from this work.

Media Coverage:

January 5, 2013 CBS Evening News “Loud ships disturbing whales”
<http://www.cbsnews.com/video/watch/?id=50138301n>

NOAA OCEAN NOISE STRATEGY

(Co-chaired by L. Hatch, SBNMS, J. Harrison, NOAA Fisheries Office of Protected Resources, Sofie Van Parijs, NOAA Fisheries Northeast Fisheries Science Center, Jason Gedamke, NOAA Fisheries Office of Science and Technology)

In a January 19, 2010 letter to the Council on Environmental Quality, NOAA Administrator Dr. Jane Lubchenco committed the agency to further developing tools to comprehensively manage the impacts of underwater noise on marine mammals. The first phase of this effort focused on geospatial mapping tools to depict sound fields associated with human activities and the distribution and densities of cetaceans throughout the US EEZ, and culminated in stakeholder symposium to discuss the potential management application of these tools. A report for this activity was published in December 2012 and is available on the project’s website (below). Phase II of this effort, beginning fall 2012, began an initiative to develop a cross line office ocean noise strategy to guide management and to continue to direct science tool advancement. Data from SBNMS are playing important ground-truthing roles in several case studies to advance nationwide sound field modeling and integration of sound and whale data.

See <http://noaa.cetsound.gov> for more information, for a copy of the December 2012 report, and access to the mapping tools developed through this initiative.

Media Coverage:

12/11/2012 Science Times, New York Times (Front Page): Rising Tide of Noise is Now Easy to See
http://www.nytimes.com/2012/12/11/science/project-seeks-to-map-and-reduce-ocean-noise-pollution.html?pagewanted=all&_r=0

12/19/2012 Soundcheck, WNYC National Public Radio: Noise Pollution: Once In Cities, Now In Seas, A government-led project aims to map human-made noise pollution in the world’s oceans.
<http://soundcheck.wnyc.org/2012/dec/18/noise-pollution-under-sea/>

12/20/2012 The Takeaway, WNYC Public Radio International: Mapping Noise Pollution to Save Marine Life
<http://www.thetakeaway.org/2012/dec/19/mapping-noise-pollution-save-marine-life/>

1/8/2013 Where We Live, Connecticut Public Radio: Ocean Sounds, Bird Habitats, and Key Topics to Legislate
<http://www.yourpublicmedia.org/content/wnpr/ocean-sounds-bird-habitats-and-key-topics-legislate>

PASSIVE ACOUSTIC IDENTIFICATION AND CHARACTERIZATION OF COD SPAWNING ACTIVITIES

(Funded by award to L Hatch and S Van Parijs via NOAA Fisheries Office of Science & Technology)
This work represents the continuation of collaboration between researchers from SBNMS, Northeast Fisheries Science Center, Cornell University Bioacoustics Research Program and Massachusetts Division of Marine Fisheries. Winter 2012 included the final acceptance for publication this spring of a manuscript presenting the results of two years of data collection using Marine Autonomous Recording Units (MARUs) placed near predictable aggregation areas for spawning cod in Massachusetts Bay to identify

and characterize the sound profiles of these events. In addition, a new analyst was trained at NEFSC to tackle data from the more extensive arrays of recorders deployed in spring 2012, in conjunction with information from DMF's ongoing cod tagging work, to further link cod movements in the area surrounding the cod spawning site with their acoustic behavior. The collaborators will meet at SBNMS in February 2013 to discuss next steps.

Hernandez , K.M., Cholewiak, D.M., Dean, M., Hatch, L.T., Hoffman, W., Rice, A.N., Risch, D., Zemeckis, D. and Van Parijs, S.M. (Accepted January 2013) Qualitative description of grunts produced by Atlantic cod (*Gadus morhua*) ICES Journal of Marine Science.

MONITORING OF VESSEL SPEED IN NOAA SMA TO PROTECT RIGHT WHALES

(Funded by the International Fund for Animal Welfare)

219 letters and maps ("report cards") were sent at the beginning of the year to 163 addressees/companies from 25 countries. We have analyzed data from 2009 – 2012 for trends. We are working with NMFS to examine compliance of vessels involved in the SBNMS outreach project in all SMAs (Florida to New England) and relative to other NOAA outreach efforts.

WHALE ALERT

(Partial Funding by the International Fund for Animal Welfare)

Whale Alert is experimentally being enlarged to include several new features.

1. Physical Oceanographic Real-Time System (PORTS®) data

SBNMS is collaborating with the USCG, UNH/CCOM, IFAW and NOAA PORTS to display real-time tide and current information through Whale Alert. NOAA ports data are not currently transmitted via AIS and this would be one of the country's first programs to do so. An AIS transmitter will be placed on the Chesapeake Bay Bridge

2. Whale Sightings Function

SBNMS is working with NMFS, IFAW, UNH/CCOM and EarthNC to develop a right whale sightings function to be incorporated into *Whale Alert*. Sightings data submitted through Whale Alert would go through the validation process currently used by the NEFSC before being displayed.

VOLUNTEER PROGRAM (Anne-Marie Runfola):

Numbers at a Glance:

- 7 programs: Sanctuary Ambassadors, *A Child's Sanctuary*, Seabird Stewards, Internships, Sister Sanctuary Exchange, Marine Mammal Observers, Volunteer Cross-Training with Partner Organizations
- 10,500 service hours in 2 yrs. (not including SAC hours).
- 142% increase in hours from Yr. 1 (2,906 hrs) to Yr. 2 (7,043 hrs)
- 79,000 community members reached
- 300 total volunteers engaged - current, alumni, interviewed/trained
- 60 regular volunteers
- 12 Interns placed - 1600+ hrs; In Operations, Research, Education, and Volunteer Programs
- 3 grants received: \$28,000
- \$351,490 Economic Value*

*Estimate uses MA State rate for unskilled volunteer service @ \$22.46/hr (AARP - source) and an average skilled rate of \$75/hr. Conservative estimate of 1/5th volunteer services at skilled rate.)

Winter Highlights

Teen Ambassador Earns Highest Level Girl Scout Award for Sanctuary Project

On February 12th, 2013, Teen Ambassador, Caitlin Fitzmaurice, received the Girl Scout's highest and most prestigious honor, the Gold Award, for her outreach work with SBNMS. Caitlin, who gave a presentation at the last SAC meeting, developed and produced two events, *A Child's Sanctuary: Go Green for Marine Life*, for young children and their parents this summer/fall (8/25 and 9/22). The programs celebrated the sanctuary's marine mammals. 130 children and their parents listened to ocean stories inside a life-size whale, tried on a blubber glove, ate like a whale and learned about entanglement risks to marine mammals and how the sanctuary and its partners work to protect them.

Caitlin led six other sanctuary Ambassadors for each event, and organized the programs in partnership with the Scituate Library. Both events garnered several articles in the local press, including a full-page photo spread in the Scituate Mariner. Feedback was very positive, with participants requesting future events, introductions to local schools, and more information on volunteering with the sanctuary. In addition to running the programs, Caitlin also gave presentations to several groups about the sanctuary and her work with us, including to a group of science teachers from Scituate to help connect them with sanctuary staff and programs. By attaining the Gold Award, Caitlin will garner more press this spring and have more opportunities to talk to the public about her work with the sanctuary.

In addition to the publicity and educational value of the programs, this is the first time a volunteer has run *A Child's Sanctuary* programming without the Volunteer Program Coordinator present. This paves the way for additional programs run by volunteers, giving the sanctuary much greater outreach potential.

Seabird Stewards Take to the Seas for the S4 Study and Annual Christmas Count

On a very cold but calm January 3rd, 2013, the Stellwagen Sanctuary Seabird Stewards (S4) joined forces again with National Audubon's annual Christmas Bird Count team. The group sighted 714 birds, and identified 16 distinct species, including an Atlantic Puffin, Razorbills, Black-legged Kittiwakes, Bonaparte's Gulls, Dovekies, Common Murres, and an Icelandic Gull. The sanctuary's Seabird Stewards program has incorporated the Audubon Society's annual Christmas Bird Count into its seasonal surveys of seabird diversity and abundance. All of the counts use the redefined Stellwagen Bank Christmas Bird Count survey area, which is now completely within sanctuary boundaries and comprises a subset of sanctuary research coordinator David Wiley's sanctuary use study area in the mid-1990s and 2001-2002.

The volunteer corps of experienced birders, who serve as citizen scientists, is providing the sanctuary with some of its most detailed information about avian species. This year's findings will be added to both the growing S4 and Christmas Bird Count databases to compare relative abundance of seabirds over time-to help us understand populations within the sanctuary and their possible impacts on local ecosystems and as a barometer for other changes in the environment. We are able to conserve resources by running both seabird studies on one cruise. This has resulted in cross-training the Christmas Count volunteers, some of whom have joined the S4 program to participate in the research year-round. In addition, both programs have garnered press for the sanctuary as well as contributed to education and outreach programming related to their work and findings.

One of the Seabird Stewards is also our new GIS intern and is helping Volunteer Coordinator, Anne-Marie Runfola, to create a comprehensive report of S4 program activities (41 cruises in 2 years on the

Auk and Whale Watch vessels) and results to date, including visual data mapping. Look for the report this spring.

Volunteer Recognition

In addition to recognition at the last SAC Meeting, the sanctuary organized its first Volunteer Celebration at headquarters on November 15, 2012. Volunteers, staff, and family members had a chance to meet each other and enjoyed a great meal together. Teen Ambassadors ran a sanctuary quiz game, Craig MacDonald gave inspiring opening remarks, Anne-Marie Runfola showed a slide show of volunteers in action, and announced the impressive FY12 volunteer statistics. Seabird Stewards intern, Rydell Welch, showed off initial results from the 34 research cruises run in 2012. Thanks to National Marine Sanctuaries, we were able to present the volunteers with NMS 40th Anniversary pins, to honor them for their contributions.

Recent and Upcoming Outreach

Stellwagen Sanctuary Ambassadors offered information and activities to thousands of visitors this fall/winter, creating awareness and stimulating conversation about our wild ocean place and efforts to protect its resources.

Selected recent outreach events and upcoming opportunities:

• 10/19-10/20/12	Museum of Science-Archaeology Fair: Booth
• 11/02/12	New England Ocean Science Education Collaborative (NEOSEC) Ocean Literacy Summit: Volunteer Coordinator and Deputy Superintendent made presentation, including re. volunteer programs/opportunities
• 11/15/12	Volunteer Celebration at Headquarters
• 11/18/12	Museum of Science-Boston Biodiversity Day: Booth
• 02/14/13	Gates Intermediate School Ecology Club: Presentation and Planning for spring outreach events
Upcoming Events	
• 03/06-09/13	Marine Bird Cooperative Conference: Anne-Marie to present seabird research activities/results to this east coast consortium of agencies, universities and non-profits
• 03/09/13	Inside the Belly of a Whale at South Shore Natural Science Center: Education event
• 03/09 - 10/13	Boston Sea Rovers Show: Booth
• 03/17/13	St. Patrick's Day Parade. Come march with us and wave to 25,000 in the crowd!
• 03/20/13	MA Marine Educator Association: HS Science Symposium at UMASS Dartmouth: Anne-Marie to be keynote speaker, presenting on seabird research project
• 03/20/13	Scituate Town Library Volunteer Expo: Booth
• 03/23/13	Science on the Streets at Cape Cod Museum of Natural History: Booth