



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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**43rd SANCTUARY ADVISORY COUNCIL**  
**October 23, 2014 9:30 am-3:00 pm**  
**Plymouth Yacht Club MA**  
**MINUTES of MEETING**

**Present:**

Bill Adler	Primary:	Fixed Gear Commercial Fishing
Jennifer Anderson	Federal:	NOAA Fisheries GARFO
Jeanine Boyle	Alternate:	At Large
Priscilla Brooks	Primary:	Conservation
Alyssa Catalano	Alternate:	Education
Deborah Cramer	Primary:	At Large
Tracey Dalton	Primary:	Research
Rich Delaney	Primary:	Education (Chair)
CPT Brian Fiedler	Federal:	First US Coast Guard District
John Galluzzo	Alternate:	Maritime Heritage
Jonathan Grant	Alternate:	At Large
Christine Guinee	Primary:	Youth (Non-Voting)
Laura Howes	Alternate:	Whale Watching
Heather Knowles	Primary:	Diving (Vice Chair)
Chris McGuire	Alternate:	Conservation
Kevin Nicolai	Alternate:	Youth (Non-Voting)
Jonathan Nash	Alternate:	Recreational Fishing
Tom Nies	Federal:	New England Fisheries Management Council
Wayne Petersen	Alternate:	Conservation
David Pierce	State:	MA Division of Marine Fisheries
Michael Pierdinock	Primary:	Recreational Fishing
Kevin Powers	Alternate:	At Large
Charlie Rasak	Primary:	Business Industry
Maj Len Roberts	Federal:	Mass Environmental Police
Howard Rosenbaum	Primary:	Conservation

**SBNMS Staff:**

Craig MacDonald	Matthew Lawrence	Elizabeth Stokes
Ben Cowie-Haskell	Anne Smrcina	Nathalie Ward

**Other Staff Present:**

Molly Holt, NOAA General Counsel, Office of Oceans and Coasts  
Paul Ticco, Regional Coordinator for the Northeast and Great Lakes Region, ONMS

## **I. Welcome, Review of Agenda and Approval of 42nd SAC Minutes (Rich Delaney)**

The Agenda was reviewed and approved. The 42nd SAC Minutes were reviewed and accepted.

## **II. SAC Business**

### **i. Announcing New SAC Members - Rich Delaney introduced new SAC Members**

- Jeanine Boyle, At Large Alternate. Jeanine is the Program Manager for Battelle, Norwell MA.
- CPT Brian Fiedler, Ex-Officio. CPT Fiedler is Chief of Enforcement, First US Coast Guard District, Boston.
- Laura Howes, Whale Watching Alternate. Laura is the Director of Marine Education and Conservation, New England Aquarium Boston.
- Jonathan Nash, Recreational Fishing Alternate. Jonathan is the Director for Business Development, NewStreamH2O, Attleboro MA
- Howard Rosenbaum, Conservation Primary Member. Dr. Rosenbaum is the Director for Ocean Giants Program, Wildlife Conservation Society, Bronx, NY.

Sanctuary Advisory Council Orientation - Craig MacDonald asked new SAC members to become familiar with the Sanctuary's Management Plan and SAC Charter in preparation for SAC meetings. It is important to become familiar with and understand the SBNMS Charter including voting procedures, who your Primary or Alternate is, etc. If you need more details or a more in-depth orientation, please contact Craig. He stressed the importance of the Alternate's role, and to stay in step with the tempo of the SAC. Your voices are heard and SAC meetings are an opportunity to be recognized and offer comment during open discussion.

ONMS weblink to the SAC Handbook is: <http://sanctuaries.noaa.gov/management/ac/acref.html>.  
SBNMS weblink to SBNMS SAC Charter is:  
<http://stellwagen.noaa.gov/management/sac/documents.html>

### **ii. New Recruitment**

The next SAC recruitment will be for Research Primary and Mobile Gear Commercial Fishing Alternate seats. Deadline for applications is December 31st.

SAC members are asked to provide their bios for the SBNMS Advisory Council website by 20 November, if they haven't already done so. Visit the revamped SAC website at <http://stellwagen.noaa.gov/management/sac/sachome.html>.

### **iii. Programmatic Updates**

Nathalie provided general highlights from the 2014 programmatic updates that were sent to SAC members. These updates are published in hard copy and emailed to SAC members, rather than having sanctuary staff give a series of presentations at SAC meetings. If SAC members have any specific questions about any one of the programmatic areas, please consult with her or staff.

iv. Introduction of new NOAA/NOS General Counsel

Craig MacDonald introduced Molly Holt, NOAA's new General Counsel with the Office of Oceans and Coasts Section. Molly started with General Counsel in 1991 and over the years has worked in the Oceans and Coasts office, NMFS - Protected Resources, Natural Resource Damage Assessment and the Northwest Regional Office in Seattle Washington. She is still working with Olympic Coast NMS and helped them through the management planning process including the establishment of the Intergovernmental Policy Council comprised of four Treaty Tribes and the State of Washington to participate in planning in the Sanctuary. Indian law and the ESA are her areas of expertise, as well as offshore energy development. Molly has also worked in private practice in Oregon and California and for the California Attorney General's Office.

**III. Discussion Topics**

i. Council "Round Robin"

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

ii. Summary of Sanctuary Expansions and the New Sanctuary Nomination Process

Paul Ticco, Regional Coordinator for the Northeast and Great Lakes Region of NOAA's Office of National Marine Sanctuaries (ONMS), presented a summary of both current national marine sanctuary (NMS) expansion efforts and the new Sanctuary Nomination Process (SNP). A number of existing national marine sanctuaries have completed or are presently undergoing expansion efforts to better protect and manage nationally significant marine and Great Lakes living and maritime heritage resources. These include: Thunder Bay NMS which increased in size from 448 square miles to 4,300 square miles as a means to protect a greater number of shipwrecks; Fagatele Bay (renamed the National Marine Sanctuary of American Samoa) which added five new areas; and the adjacent Cordell Bank and Gulf of the Farallones sanctuaries with a proposed 2,700 square mile increase to include the biologically significant Point Arena Upwelling Area.

Dr. Ticco then described in some detail the recently re-established and ongoing process for accepting nominations from the public for new national marine sanctuaries. The SNP, the first opportunity for new sanctuary site nomination since 1995 when the Sanctuary Site Evaluation List (SEL) was deactivated, focuses on accepting criteria-driven proposals from local communities and other interested parties. A "community" is defined as a collection of interested individuals or groups, e.g., a chamber of commerce, stakeholders, regionally-based fishing organizations, industry associations, academia or science-based groups, etc., that have a vested interest in creating and realizing the benefits of a sanctuary site in their area. The SNP involves a series of steps including the development of a nomination package based on specific criteria and considerations (including the importance of local support), and NOAA reviews. A nomination that successfully meets these evaluations is placed on an inventory of possible sites (inclusion on the inventory does not necessarily ensure the future designation of a new sanctuary site) to then be chosen by NOAA to move into the full sanctuary designation and management review process – a separate course of action that includes legal and regulatory requirements, a full public scoping and hearing process, and the development and review of draft and final environmental impact statements and management plans.

For further information on the SNP please contact Paul Ticco at [paul.ticco@noaa.gov](mailto:paul.ticco@noaa.gov); or see [www.sanctuaries.noaa.gov](http://www.sanctuaries.noaa.gov) and [www.nominate.noaa.gov](http://www.nominate.noaa.gov).

#### **IV. ONMS Campaign of Engagement.**

##### **i. National Marine Sanctuary (NMS) Business Advisory Council**

Rich Delaney summarized the day-long meeting he attended of the NMS Business Advisory Council that met in September. The purpose of the meeting tied into President Obama issuing an executive order instructing federal agencies that have federal property (national parks, sanctuaries, etc.) to explore the possibility for shared recreational opportunities and how to promote them in a sustainable way and as well as what the potential may be. The National Park Service is running a long process similar to what is happening on the ONMS side with the sanctuaries. This is to invite business representatives of other sanctuaries and other national parks, and open dialogue to discuss how to promote sanctuaries in a way that still preserves ecological functions, but yet enhances opportunities for economic and business developments of these sites. It was a very interesting set of discussions. The NMS Business Advisory Council involved representatives from places like Jet Blue, Coca Cola, Travelocity, Mobile Recreational Sports Gear Association, among others. So there are some very large corporations that have taken some interest and have agreed to have representatives work with the Office of National Marine Sanctuaries (ONMS) to explore this possibility. It is still a work in progress and the full Council has not yet been developed. Ultimately there may be products that come out of this with more recreational opportunities, focus on sanctuaries themselves so more people know about them, with financial sponsorship, and businesses supporting the sanctuaries and becoming stewards.

Prior to this meeting, there are other two organizations that have explored this same topic and which tie into the next item on the Agenda below.

##### **ii. "Call to Action" Marine Protected Areas (MPA) Federal Advisory Committee (FAC) (Rich Delaney and Priscilla Brooks)**

A "Call to Action" generated from the Marine Protected Areas Federal Advisory Committee (MPA FAC). Priscilla Brooks is a member of that organization; there is also the Sanctuary Advisory Council Chairs, which Rich Delaney, as Chair, SBNMS, serves as a representative. So there have been discussions and meetings among colleagues from other organizations prior to the NMS Business Advisory Council meeting who are responding to President Obama's Executive Order and also Dan Basta, Director ONMS, to explore the same issue, of how we can work more closely with our fellow colleagues in the business community and see where mutual benefits can be derived. This has resulted in a "Call for Action". Other sanctuary advisory councils have discussed this and felt it beneficial to vote their support.

Priscilla Brooks summarized the purpose of the MPA FAC. She was a member of the MPA FAC for 6 years up until June of 2014, not as a representative of the SAC but as an independent stakeholder. The MPA FAC is a body of approximately 20 people representing stakeholders from across different sectors and across the nation. The Chair is George Geiger, the former Chair of the South Atlantic Fishery Management Council. Every 2 years the MPA FAC will get a charge from NOAA and the Department of the Interior to work on a topic. These past 2 years the charge was to consider the role of marine protected areas in recreation and tourism which sprung from President Obama's Executive Order calling for significant expansion in travel and tourism in the US particularly among federal lands and waters. The MPA FAC supports NOAA and the Office of Marine Protected Areas; and in the US there is a national system of MPAs that include about 1,600 across the nation. So this 'charge' was married into President Obama's Executive Order. To that end, the MPA FAC developed a set of recommendations for promoting recreational use in the national system of MPAs and also for managing recreational use to sustain the natural and cultural

assets of the MPAs. These sets of recommendations were presented in the form of a letter to the Department of Interior and NOAA. (The letter is available on the MPA FAC website <http://marineprotectedareas.noaa.gov/fac/products/>.) Simultaneously, at the last Sanctuary Advisory Council Chairs' meeting in Galveston, all of the SAC Chairs, working with the MPA FAC members, crafted a similar document. The goal of the document was again to underscore the SAC Chairs' collective support of recreational use of the nation's MPAs. (SAC Chairs "Call to Action" document is attached.)

Comments:

Michael Pierdinock: Is this a guidance document? Asked for clarification. Concerned about Items 3 and 4. Understanding the way things work that if the sanctuary has a proposal such as the DHRA as you all know we are adamantly against it. That the sanctuary presents that proposal to NEFMC, that goes through all the evaluation of public comment period and it ultimately gets approved at that level. When reading this, I'm concerned that the statements in here give the sanctuary the ability to make management decisions that could shut us down from fishing certain areas in Stellwagen. Want to make sure that is or is not the case. The way it's written now concerns me -- that it gives that ability to do that, and I need to make sure that is not the case or I can't support this if that's ultimately the way it's written.

Priscilla Brooks: Strictly guidance, strictly advisory. A set of recommendations. It is not binding. This is not a legal document or a regulatory document. These are groups that are put together to provide guidance and give advice, that's it. Doesn't give any authority to any MPA to do anything.

Michael Pierdinock: Just for the record, the sanctuary could not take this and say, "I am going to prohibit recreational fishing southeast of Stellwagen and make it happen." That kind of process still has to go through the NEFMC for approval. Is that correct?

Craig MacDonald: This doesn't change the processes of either how the sanctuary performs or its relationship with either NEFMC or the State in terms of any rule-making process. This doesn't change that at all. What this does do and I'm kind of surprised at [Michael Pierdinock's] concern, because the way that I view this is that this is something that, as a charter boat operator, this is to raise the visibility of the sanctuary as the destination for recreation, which would include recreational fishing. So I see this as something to possibly get some additional funding down the road to actually work with your community to do things to inform the public to work with you folks as stewards of the sanctuary. I see this as something that's endorsing your activity. The only thing that it is saying that there are some cautionary statements that you don't want to over promote or over utilize, these are things that we all recognize whether it's commercially under the Fishery Conservation Management Act or under the Sanctuary Act. This is not legally binding, it's advisory. This is a response. The MPA FAC also falls under the authority of the National Marine Sanctuary Program. The MPA Center was transferred to the Office of National Marine Sanctuaries (ONMS). So it's all now one body. This is a way for a broader constituency to have a document to respond to the President's executive initiative on recreation and tourism within national parks and sanctuaries. So I would think that this is something that [Michael Pierdinock] would want to take back to the group — the sanctuary program is acknowledging that recreational fishing, as a recreational activity is a valid use in the sanctuary. What's raising questions is the notion where it talks about capacities and compatibilities but that's already in the Management Plan and the Act. There's nothing new.

Michael Pierdinock: Commend what the intent is and agree that would benefit charter boats and others. But specifically quoting #3(iii)... "adjusting existing management authorities to meet anticipated needs...". When I read that, that could give the sanctuary the authority to do it independent of the NEFMC process that is already set. If that will not be the case and it will continue to follow the process that is in place that I'm comfortable with that.

Craig MacDonald: Yes, the sanctuary will follow the processes that are in place, but under the Sanctuary Act, the sanctuary can initiate consideration of fishing regulations already by working through the regional NEFMC in all instances. Doesn't want to complicate things.

Michael Pierdinock: Not my understanding. The fisheries are managed through the NEFMC.

Craig MacDonald: Yes, here and most other sites around the country work through their regional fisheries councils. But there are instances where the Council has said to the Sanctuary that they can establish their own regulations to manage fishing -- that's happened in Florida and California.

Jen Anderson: Just to clarify here that that firmly lies with the NEFMC not Stellwagen.

Craig MacDonald: Yes, and that's the way we're operating. Under the Act itself, there are provisions for sanctuaries to regulate fishing but are rarely used because the preferred model is to go through the regional fisheries management authorities. For the record, want to make this clarification. But this changes nothing as to how the sanctuary program here works with NEFMC or State Fisheries Management partners; it does not change that at all. If there were any additional modifications to management authority, it would only be through the existing processes, including amendment of the designation document. This letter doesn't change any process, nor does it amend the designation document.

Priscilla Brooks: This is not focused necessarily at the national marine sanctuary system. This is much broader and focuses at the 1,600 MPAs across the nation. It is strictly recommendations to the Secretary of the Interior and the Administrator of NOAA to promote and support recreational use in the MPAs.

Rich Delaney: The origin of this was the President's Executive Order. There are 1,600 areas that present tremendous recreational and tourism opportunities that are being under-utilized. This is what is driving everything. This would be a great tourism boost for our country. This is an economic development initiative that is reasonable and sustainable. The document even states to identify more areas that hopefully get more people to become stewards, users and support the MPAs, and appreciate these areas. This is the main thrust to put the framework in place.

Tom Nies: It is not clear to whom this is addressed.

Priscilla Brooks: To the Secretary of the Interior and to the Secretary of Commerce, and the head of NOAA, I believe.

Tom Nies: Any recreational activity within the sanctuary he has contact with is the recreational fishing industry, and there is a real impression in this region that the sanctuary rightly or wrongly is trying to restrict the amount of recreational fishing in the sanctuary through proposals such as the DHRA, the reference areas and other proposals like this. NEFMC is often criticized for doing the Sanctuary's dirty business when it comes to recreational fishing activities. Question is that when the SAC signs a document like this that talks about inviting people to play responsibly and increase recreational activity -- one of the key recreational activities in the sanctuary is recreational fishing. Does the SAC anticipate if they sign this, there is going to be a shift in the stance taken on issues

like the DHRA and attempt to work more closely with the recreational fishing activities to encourage their participation and use of the sanctuary?

Craig MacDonald: DHRA is one of the best ways to get the information to restore recreational fishing within the sanctuary. To get the knowledge to know how NEFMC can do things differently to help restore fishing for recreational charter party fishing. We're all for that. Our goal is multiple, compatible use. But we think that the understanding of what is compatible and how to make things compatible links to a knowledge base. Gain information on how things work out there. Once you know how they work, then you can make the decisions that I think would favor recreational charter fishing. Need more information as a community on how to improve recreational fishing in the sanctuary and we think this DHRA proposal before the Council is the only way to gather the kinds of information to do things differently. Because you'll have new information and new options. This ties in nicely with the marketing framework -- a branding image - that the Business and Tourism Subcommittee put together. Recreational fishing was identified as one of the key activities that could benefit from the branding of the sanctuary to improve recreational fishing. This is as much our responsibility as sanctuary managers to help restore recreational fishing, because we view recreational fishing as getting more stewards on the water to help us have a better understanding of what the activities are. I don't believe we've had the opportunity to do this. I've tried over a year to make direct contact with recreational fishing organizations in the context of the DHRA, and they would not meet with me. I sought permission to be on the agenda for the NEFMC Recreational Advisory Panel and I was denied by the Chair of the Panel and the Chair of the Groundfish Committee. So, there is no lack of my trying. We want to see recreational fishing and charter fishing in the sanctuary restored and fully operational.

Bill Adler: Okay with working to improve recreational fishing in Stellwagen. However I get worried that since it went to the Secretary of Commerce and Secretary of Department of Interior, can they turn around and use it to change their designation. And say maybe they are trying to change their designation so they can manage fishing without going to the NEFMC and that worries me on the commercial side of things. They would use this to say, look we signed this to make recreational fishing better out there but we are also going to try something to restrict other commercial operations. Another thing is I don't remember the sanctuary act saying that they could govern fishing. I did hear over and over again that they can't control fishing. What they can do if they have to go before the Federal council if they decided to do something like that, I don't remember that they do have the authority to govern fishing. I don't remember that being said. I just get concerned that somebody would take this very good idea and use it to change something that right now is the current situation, but can they use it to change the designation. Could someone like the Secretary of Commerce or someone else use it to change it? Want to be sure that this didn't come up in any of the discussions that Priscilla Brooks and the [MPA FAC] Committee had with the other sanctuaries. Realize this isn't the intent of the group, but could they use it?

Rich Delaney: Not in a legal fashion. In discussions with the 13 other SACs, that intent was never mentioned. It was all about promoting tourism in a sustainable way. It's not going to happen. It would be counterproductive to the rest of the language and the intent of the full document. Don't forget this is to promote economic development for whale watching, diving, hotels, bird watching, this is a big umbrella. The recreational fishing part is very key, but SBNMS also has maybe the biggest activity, which is whale watching. So let's promote it, but in a sustainable way. This question or intent never arose during the discussions with the other sanctuaries. There is no conspiracy or other agenda here in these discussions. DHRA is somewhat of a separate discussion than the "Call to Action". This should be addressed in another forum.

Priscilla Brooks: The intent is to promote recreational activities but responsibly. Get good info out there and build stewardship and fund it. Take advantage of the MPAs as important destinations for

recreation but to do it responsibly. Recreation activities are increasing. The biggest message was promote it, but promote it responsibly. Get a good information base with which to do it, build stewardship among the users, but most importantly fund it. Get some money to these managers to be able to do this.

Michael Pierdinock: For the record, understand that there have been issues in the past with [Craig] being able to meet with recreational fishing organizations, but don't believe that to be the case since I was appointed [to the SAC]. Basically we described to [Craig] why we weren't for the DHRA and we did that professionally; understand that professional relationship we have now is that [Craig] knows his door is open and can call him at any time and vice versa. So I don't think that still exists with the recreational group. But the mistrust is out there and I constantly have to fight with that, but if you need to get to these organizations, which I represent, call me and I'll make it happen. Don't think there is any issue. We have a professional relationship and work together. The mistrust — that is history, want to work with all the groups now and in the future, but need to battle with certain people in some organizations internally. Still hope for professional discussion.

Craig MacDonald: Agreed. Since Michael Pierdinock assumed his position within the Stellwagen Bank Charter Fishermen's Association, he has always been available to discuss matters. But Michael wasn't in that position when I was denied the opportunity to be on the agenda for the NEFMC Recreational Advisory Panel Meeting to introduce comment on the discussions relative to DHRA.

Rich Delaney: DHRA is a separate discussion and is a topic for later on the agenda. But dialogue is good.

Tracy Dalton: Good language in document such as funding, resources into understanding people and what they're doing. Maybe SBNMS can build it up a little. Think about ways to encourage better understanding of some of these groups that are being discussed and the different uses that are out there. Sometimes assumptions are made about conflicts just because there are uses happening in the same space. But that's not always the case. It's useful to look into these issues in a little more detail. Liked this part of the "Call for Action."

David Pierce: Very useful document. Understands concerns expressed by some of the SAC members with regard to Item 3 (quotes from document). Language is suggestive that down the road there may be an attempt to change authority (*inaudible*). The designation document would have to be changed to provide that authority. The process could be changed. But that could be done now, if the Sanctuary wanted to do that now, it could make an attempt to do that, but to Craig's credit has consistently worked with NEFMC to propose things that would be a benefit to the Sanctuary and the mission, goals and objectives of the Sanctuary. It's a question of trust. Trusts Craig and staff to continue to work with NEFMC and not do anything crazy to cause conflict after positive steps have been made. Certainly respects what was said about problems Craig had with the Recreational Advisory Panel on DHRA issue in the past. But that's in the past and now moving forward. If I could vote, I would vote to pass the document. Other sanctuaries have recognized that and certainly SBNMS will do the same.

Rich Delaney entertains motion:

***MOTION: To endorse and authorize SAC Chair to sign the "Call to Action" letter on behalf of the SAC. 11 yea; 1 nay; 1 abstain. Motion passed.***

iii. Subcommittee on Business and Tourism (John Galluzzo and Charlie Rasak)

John Galluzzo, chair of the business and tourism subcommittee, introduced Charlie Rasak, subcommittee member. Charlie described a potential partnership with the Massachusetts Association of Insurance Agents (MAIA). Charlie showed a short video he had created that spelled out the rationale for the partnership, targeted to the audience of independent insurance agents who would buy into the ad campaign. The proposal links the insurance industry, which protects belongings, to the sanctuary, which protects habitats and the many organisms that inhabit them. (Video was shown by CRG partnership between SBNMS and MAIA.)

Rich Delaney concluded that this is a tremendous opportunity. Great work was done on the part of the Subcommittee. The SAC should give any feedback to John Galuzzo and Charlie Rasak.

iv. Earth Is Blue Campaign Launches on ONMS 42nd Anniversary

This month NOAA's Office of National Marine Sanctuaries launched the "Earth Is Blue" social media campaign, kicking off a new effort to share the beauty and wonder of the sanctuaries with the world through powerful photos and video imagery. The start of the campaign included the debut of the ONMS Instagram account, which will be sharing a new photo every day from across the National Marine Sanctuary System. Sanctuary outreach staff will also be producing a video a week highlighting the resources, places and people that make sanctuaries worth protecting. For more information, contact [Matt.Dozier@noaa.gov](mailto:Matt.Dozier@noaa.gov).

**V. Recognition of Sarah Guitart as SBNMS Volunteer of the Year (Anne-Marie Runfola)**

As an introduction to the Volunteer of the Year Award, Anne-Marie Runfola gave a brief overview of the Volunteer Program statistics for FY14 (also found in the SAC Programmatic Update provided to SAC members) and current programs. She then gave a brief introduction to Sarah Guitart, the 2014 SBNMS Volunteer of the Year. Anne-Marie summarized Sarah's work with the sanctuary over the past 16 months, focused on the Stellwagen Sanctuary Seabird Stewards program (S4), and presented her with the award plaque, provided by the National Marine Sanctuary Foundation. Craig MacDonald and Rich Delaney congratulated Sarah and then she gave brief remarks.

**VI. Working Luncheon - *Charles W. Morgan's 38<sup>th</sup> Voyage* (Ben Haskell)**

i. Ben Haskell presented on *Charles W. Morgan's* upcoming 38<sup>th</sup> Voyage and related events that will take place during early Summer 2014. Contact [Ben.Haskell@noaa.gov](mailto:Ben.Haskell@noaa.gov) for more information regarding the *Charles W. Morgan's* upcoming events or for a copy of his presentation.

ii. "Happy Time" Challenge (YouTube Video) (C. MacDonald)

All ONMS sanctuaries have been challenged to produce a video that rivals the one that was produced by the American Samoa NMS. This video was shown to the SAC. The SAC is invited to participate in a production of the SBNMS "Challenge" idea. Ideas for the video are solicited as well as participation by SAC members.

## VII. Agency/Governmental Reports

### i. NEFMC OMNIBUS Amendment 2: Stellwagen Designated Habitat Research Area (DHRA) and Reference Area (T. Nies)

The Council approved the draft Omnibus Habitat Amendment 2 (OHA2) at a special meeting in February 2014. The public comment period opened on October 10 and will run until January 9, 2015. The public hearing schedule includes eleven hearings and an online webinar (see below). The draft amendment and directions for submitting written comments are at <http://www.greateratlantic.fisheries.noaa.gov/regs/2014/October/14habo2anoa.html>. The public hearing schedule is available at: <http://www.nefmc.org/calendar/nov.-24-2014-public-hearing-draft-omnibus-habitat-amendment-2>

In addition to updating the areas identified as essential fish habitat, OHA2 includes area management alternatives that could dramatically change the area closures off New England. The spatial management measures in OHA2 are designed to accomplish three objectives:

- to minimize the adverse effects of fishing on EFH and improve protection of juvenile groundfish habitats
- to improve groundfish spawning protection
- to designate Dedicated Habitat Research Areas

One of the proposals in the amendment of keen interest to the SBNMS Advisory Committee is the Stellwagen Dedicated Habitat Research Area (see figure below). There is a critical need to improve the information used to identify essential fish habitat and to quantify the linkages between habitat and fishery production. Dedicated Habitat Research Areas (DHRAs) would provide areas to conduct the research necessary to fill these needs. The amendment proposes several. The Stellwagen DHRA overlaps part of the SBNMS and has been supported by the SAC. This alternative includes a possible "reference area" of about 55 square nautical miles that would prohibit recreational groundfish fishing. The document shows two possible reference areas; the Council selected the northern area (reference area 2) as part of its Preferred Alternative. A final decision on OHA2 is planned for April 2014. Direct questions to Council staff member Dr. Fiona Hogan, [fhogan@nefmc.org](mailto:fhogan@nefmc.org), 9787-465-0492 ext. 121.

Comments:

Priscilla Brooks: Is the DHRA completely within the SBNMS boundaries.

Tom Nies: No.

Rich Delaney: The concept of the goal of having a DHRA is in the original Management Plan and the SAC discussed and supported a concept, voted on this, and worked with the fishing industry through SAC fishing representative, Vito Giacalone, to help shape an option. All these discussions and recommendations were conducted with a clear understanding that whatever this body discussed or shaped would be funneled through the NEFMC. This is a good example of how we worked together.

Tom Nies. This final version is not actually identical to what the sanctuary originally brought forward. It was modified.

Rich Delaney. It was modified in discussions with our commercial fishing representatives. Want to make sure there was some consensus among the SAC.

Michael Pierdinock: My constituents haven't been for the DHRA, SERA or whatever version it was from the beginning. Question is: with the emergency actions that are going to take place, what is on the table right now is a decision to be made for a complete closure of the Western Gulf of Maine to all ground fishing. This would prohibit ground fishing within that area. If the Western Gulf of Maine closure occurs prohibiting all ground fishing, that is going to encompass that entire area and beyond. What is the timing of that potential decision and would that occur before this is implemented? With that, how long would that closure be? I believe is it 3 years if no research is done before it's overturned. But there have been so many iterations of this, going back to SERA I, SERA II, that maybe it's 5 but I think it's 3. That's the first I've heard of a 5-10 year closure. Would it be one or the other?

Tom Nies: Believes it's 5 years, but will double check. One of the issues with dedicated habitat research areas is that there is some guidance from the agency that we should be looking at these things every 5 years and there is some feeling amongst the scientists that 5 years isn't really long enough to evaluate the effectiveness of a habitat area – not just a habitat research areas, but all habitat areas – because some areas take a long time to recover that 5 years isn't really enough time to evaluate whether a habitat area is effective or not. Initially we were talking about a 5-year review which is what the agency was suggesting for habitat areas but through the process we decided that it was more appropriate to have a 10-year review so that we would review these habitat areas every 10 years. This is another thing that I need to double-check in the document and get back to you.

Chris McGuire: Are comments through the GARFO website submitted between now and the end of comment period visible on a public website? Will the public have access to other people's comments?

Tom Nies: Understanding, but may be wrong, that comments that come in will be posted on a *regulations.gov* website because they are comments on a fisheries management action as they're received. Once that's done, they are transferred to NEFMC to compile them and work out responses. Should be posted relatively quickly – either automatically or within a week.

Priscilla Brooks: What are the restrictions within the proposed DHRA.

*(At this point, Tom Nies refers to the DHRA document and lists various restrictions that are proposed. Back and forth commentary continues between Bill Adler, Jen Anderson, Priscilla Brooks, Rich Delaney, Tom Nies, Michael Pierdinock, Craig MacDonald, on type of restrictions and other DHRA related issues.) (Audio available upon request.)*

Tom Nies: Confirms that review of the habitat areas is every 10 years. Review of dedicated habitat research areas is every 3 years.

ii. Update: Status of GoM Cod Stocks and Management (Tom Nies)

In July 2014, an assessment of Gulf of Maine cod determined that the stock was at a very low biomass. Fishing mortality was also much too high. As a result, the Council is considering new measures to rebuild this stock. Since Council measures would not be implemented until May 1, 2015, the Council asked the National Marine Fisheries Service to take emergency action. A decision by NMFS is expected in mid-November. The Council will determine its measures for 2015 at its meeting in November. The Council will likely reduce the quota to a value below 400 metric tons (mt.), compared to the 2014 quota of 1,470 mt. In addition, there may be additional closures to protect spawning fish.

Comment:

Michael Pierdinock: We recognize there is an issue with the cod. Have pointed out more than once that before the catch share system had us go from sustainable levels of bottom fishing in 2010 to where we are today. The meetings we had more than once as well as other organizations have proposed that as you indicated the quota 386 mt for commercial as well as recreational (only get about 64 mt) that's so low, that we agree next year let's make the quota for cod zero with the hope that we can continue to fish in the Western Gulf of Maine for haddock, pollock, and other species that are at good levels so we would stay in business. To close it out completely -- we've talked about the problem with just closing out the DHRA area and the impact to us -- but to close it out completely will be the end of the charter boat fleet because of the fact that we depend so heavily on the groundfish. It's not like we're in Buzzard's Bay and other areas where we can rely on fluke, flounder, tautog and other species to land. Our main stay is bottom fish. We could go after stripers -- they're not around, they're way off shore and you can't land them, you got to release them, and tuna haven't showed up until recently. This has been going on pretty much the past few years. That's the proposal we've come up with and we hope it gets implemented and as Tom said it's up in the air whether it's going to be a complete closure or partial closure.

iii. NMFS: Regional Report (Jen Anderson)

**Atlantic Large Whale Take Reduction Team**

- NOAA's National Marine Fisheries Service (NMFS) convened a meeting of the Atlantic Large Whale Take Reduction Team (Team) via teleconference on Wednesday, October 1, 2014.
- The purpose of this meeting was to review a proposal submitted to NMFS by the Massachusetts Division of Marine Fisheries (DMF) to modify the Massachusetts Restricted Area trap/pot closure of the Atlantic Large Whale Take Reduction Plan (Plan).
- NMFS sought input from the Team regarding potential spatial and temporal modifications to the closure given the upcoming January 1, 2015, implementation date for the Massachusetts Restricted Area.
- The Team agreed to move forward with the spatial and temporal changes to the closure and to continue the discussion on other aspects of DMF's proposal at a future in-person Team meeting in January 2015.

**Federal Funds to Support River Herring Research and Conservation**

- NOAA Fisheries through the ASMFC just made ~\$260,000 available to support studies to further river herring conservation.
- Priority areas for funding include fish passage, habitat restoration, impacts of fisheries on river herring and ways to reduce those impacts.
- Proposals are due November 13, 2014.

**First Federally Permitted Offshore Mussel Aquaculture Project**

- The first offshore shellfish aquaculture project in New England was recently permitted by the Army Corps of Engineers to grow blue mussels in a 30-acre area of Nantucket Sound.
- User conflicts and limited space have reduced inshore production of mussel farms; the move to an offshore site is expected to increase production.

Comment:

Bill Adler: For the record [re: proposal submitted to NMFS by the Massachusetts Division of Marine Fisheries (DMF) to modify the Massachusetts Restricted Area trap/pot closure of the Atlantic Large Whale Take Reduction Plan (Plan)]. This is a travesty. You don't ban cars from the expressway because there might be an accident. There is no proof that where they're closing is where the whales might be. Let's pick something and just close it. It's a travesty because you are putting some of these fishermen in a tight bind who fish all year and now won't be able to. It's not a lot but for them it's their income and you're closing it off. The other part is reducing the risk where they've put the square and increasing the risk around it and no one has told the whales they have to stay in the corral. Because the gear will be moved that is anywhere near close by the line, making a wall. We tried to explain this but they didn't listen. Another thing – the infrastructure -- apparently there was an agreement to move the January closing to February -- somewhere in NMFS whale room being done. But the division's proposal to allow prior to the April 30<sup>th</sup> end of the closure a couple of areas where gear could be set since the ones that do end fishing for the winter usually in December and they bring the traps in, do want to get going in March and April and now they can't. So there was a proposal which apparently was not approved which would be a place where they could temporarily set their gear until May 1st when they could then go back out; this was turned down. What this also causes as infrastructure problem, because it's dangerous in rough seas in winter and they have to try to bring their gear in, they overload their boats, and in the spring we end up with "trap day" which is another nightmare trying to get everything out May 1st. What is going to happen is the harbors can't adjust. They are not going to have the infrastructure to allow all the traps to have to be stacked and loaded as the boats fight for a position to load their boats rather than gradually putting them out. So there is going to be an infrastructure problem adjacent to the closed areas. So all these things make this a tragedy for the lobster fishing community over a "maybe" – no guarantee, it's just maybe there might be an interaction. So when there's an interaction outside this area, we're going to go back to the table again, it went fine in the closed area, but now we have a problem up here or down there – let's do something there. The industry is very upset, and now there will probably be more attempts at attacking the marine mammal protection act and the endangered species act because it's unreasonable and NMFS had said, "it's not our fault, we have to go by the law. So we'll change the law." Just wanted this on the record.

iv. Whale SENSE Update (Allison Rosner and Regina Asmutis-Sylvia)

- Whale SENSE is a collaborative, voluntary education and recognition program for commercial whale watch companies. Companies voluntarily sign up, train their staff annually, agree to adhere to our regional whale watching guidelines, and are annually evaluated. The program then recognizes the participating companies through press releases and program promotion.
- Program is a partnership between NOAA Fisheries, Whale and Dolphin Conservation, and Stellwagen Bank National Marine Sanctuary.
- The annual training includes a section on Sanctuary significance and research (regardless of the location of the company). If the vessel visits the sanctuary we ask that they inform their staff that they have entered the boundaries of the Sanctuary. For companies outside of the Sanctuary boundaries, we remind them that the whales they are viewing have been/or likely be visiting the sanctuary.

## 2014 updates

- 13 companies participating representing approximately 1/3 of the entire whale watching community (Maine through Virginia).
  - About half of all participating companies are located in MA which are the primary Sanctuary visitors
  - Also have companies in Maine, New York, and New Jersey
- Launched a Facebook page this summer which already has over 1000 likes and shares
- We received funding from the National Sanctuary Foundation to increase our online program promotion through advertising the program through Google Ads. Since the ads have been in operation, visits to the website have more than doubled.
- The program is also being expanded to Alaska. We recently had a call with NOAA Fisheries Alaskan regional office and Alaskan operators to talk to them about the program. Steve Miliken, the SAC whale watch rep, was on the call (Dolphin Fleet was the first company to participate and was designed with Steve's help). Before the call, the AK operators were skeptical, after the call, they are ready to give it a try.
- Also had calls with a whale research non-profit org. in Thailand on how Whale SENSE could help inform the development of a responsible whale watching program for their resident BRydes whale population. And have received additional international requests regarding this program from Iceland, Costa Rica, and the Turks and Caicos.
- Whale SENSE videos are now available on NOAA's Ocean Today website, and are featured in Smithsonian kiosks around the country (viewership of around 30 million people).
- Provided Whale SENSE training to some of the Morgan crew.
- Published multiple press releases this year, with some focusing on successful humpback disentanglements that wouldn't have been possible if our participants hadn't stood by the animals for as long as they did.
- Program (including its association with SBNMS) will be highlighted at the Jenkinson's Aquarium in a new exhibit about migrating whales in Pt. Pleasant Beach New Jersey.
- Next steps:
  - We need help getting the message out about this collaborative program. The more the public recognizes the program, the more successful it will be.
  - Need greater support given to companies that participate and are willing to go above and beyond.
  - Looking to revitalize See A Spout, a responsible whale watch program for recreational vessel operators.

## VIII. Constituent Reports

i. Diving Highlights and Collaborative Research Project with SBNMS (Heather Knowles)  
Heather shared photographs with the SAC of the dives on Sanctuary shipwrecks she has conducted. She reported that it was a truly amazing and exciting diving season in the Sanctuary; some of the best she has ever seen. She has been diving in the Sanctuary for about 10 years and the combination of marine life, water clarity, and conditions was truly exceptional. Dive charters made about 20 trips into the Sanctuary, which is the most ever done. There have been collaborative partnering research projects that are fulfilling and translating the Management Plan into action, and diving collaborations with the Sanctuary staff has been excellent. The diving

community is realizing the benefits of the outreach efforts generated through the Sanctuary's "campaign of engagement."

ii. Update: Cod Spawning in Collaboration with SBNMS, MA DMF, SMAST, and Sector X Fishermen (Chris McGuire)

Cod Research: Chris McGuire of The Nature Conservancy presented an update on a collaborative research project investigating the spatial and temporal extents of winter cod spawning inside and West of the Sanctuary. The research partners include fishermen from Sector X and scientists from MA DMF, SBNMS, U. Mass. Dartmouth-SMAST, NOAA Northeast Fisheries Science Center and TNC. Chris presented an overview of the passive and active acoustic research methods, shared some year one data, and described the research plan for this winter. Due to the severely depleted status of Gulf of Maine cod there is considerable regional interest in protecting spawning aggregations. This research is funded thru spring 2016 and updates will be shared at future SAC meetings.

**IX. New Business.**

Rich Delaney states that MA Coastal Zone Management is conducting comment and public hearings on the update of the Ocean Plan. Comment period closes November 30th. Chris McGuire added that a lot of great work has gone into the update of the Ocean Plan. Tune into sand mining in particular and its baseline analysis with new figures on sand mining. Furthermore, Priscilla Brooks stated that work is also being done to identify any electricity transition corridors but not through the Sanctuary. For more information, visit their website:

<http://www.mass.gov/eea/waste-mgmt-recycling/coasts-and-oceans/mass-ocean-plan/2014-draft-ocean-plan.html>.

**X. Public Comment.** None.

**XI. Adjourn:** 3:00 pm.

## SBNMS PROGRAMMATIC UPDATE – 2014

### **RESEARCH SCIENCE TEAM - Michael Thompson, Leila Hatch, David Wiley, and Grant Funded Brad Cabe:**

#### **Tagging humpback whales with synchronous motion, acoustic recording tags (DTAG), DMann tags and NatGeo Crittercams**

Partners: WHOI, Oregon State University, Syracuse University, Center for Coastal Studies

Platform: R/V *Auk*

Funding: Volgenau Foundation; International Fund for Animal Welfare, National Geographic Society; additional Grants submitted

PI: Wiley

Description: Use suction-cup attached tags to investigate the behavioral ecology of endangered whales relative to vulnerability to lethal collisions with ships and entanglement in commercial fishing gear.

Publications:

Ware, C., D. Wiley, A. Friedlaender, M. Weinrich, E. Hazen, A. Bocconcelli, S. Parks, A. Stimpert, M. Thompson and K. Abernathy. (2013) Bottom Side-Roll Feeding by Humpback Whales (*Megaptera Novaeangliae*) in the Southern Gulf of Maine, USA. *Marine Mammal Science*: DOI: 10.1111/mms.12053.

Parks, S.E., Cusano, D., Stimpert, A., Weinrich, M, Friedlaender, A., and Wiley, D. (submitted) Ready, Set, Go: Evidence for acoustic coordination of bottom feeding by humpback whales. *Proceedings of the Royal Society B*.

Theresa Kirchner<sup>1</sup>, Ari S. Friedlaender<sup>1</sup>, Kyler Abernathy<sup>2</sup>, Greg Marshall<sup>2</sup>, and David Wiley<sup>3</sup>. Submitted) Digging in the dirt? *In-situ* observations of humpback whale bottom feeding in relation to the benthic habitat and escape behavior of their sand lance prey. *Marine Ecology Progress Series*.

#### **Habitat use, foraging ecology and bycatch risk of great shearwaters based on PTT tags**

Partners: USF&WS, UMASS-Amherst, Boston University, University of Long Island, National Marine Fisheries Service, University of Canterbury (New Zealand)

Platform: R/V *Auk*

Funding: Volgenau Foundation; Pew Environmental Trust; additional grants submitted

PI: Wiley

Description: Great Shearwaters are net captured. Once captured, exhaled gas, blood and feather samples are taken for stable isotope analysis. Wing measurements are taken for flight modeling. Birds (n=12) are then fitted with 12-gram PTT tags (continuous data setting) to investigate fine scale movement patterns in the Gulf of Maine and beyond.

Publications:

Hatch, Joshua M.<sup>1</sup>, David Wiley<sup>2</sup>, Kimberly T. Murray<sup>3</sup> and Linda Welch<sup>4</sup> (Submitted) Integrating satellite-tagged seabird and fishery-dependent data: a case study of Great Shearwaters (*Puffinus gravis*) and the U.S. New England sink gillnet fishery. *Conservation Letters*.

#### **The Role of Sand Lance Fish (*Ammodytes* spp.) in Structuring the Abundance and Distribution of Marine Mammals, Seabirds and Commercial Fishes in the Stellwagen Bank National Marine Sanctuary**

Partners: USGS, Boston University, National Marine Fisheries Service

Platform: R/V *Auk*

Funding: Volgenau Foundation, SBNMS and USGS. Grants submitted

PI: Valentine, Kaufman and Wiley

Description: We have completed cruises in November of 2013, May 2014 and September 2014. Each cruise takes 3 days to complete. Our goal is to understand the role that sand lance play in structuring the abundance and distribution of marine mammals, seabirds, commercial fishes and recreational fishes in the Stellwagen Bank National Marine Sanctuary (SBNMS). To accomplish this we use the following methodologies:

1. Use the SEABOSS (SEABed Observation and Sampling System) to quantify the abundance of Sand Lance fish and other marine life at 44 sites throughout the Stellwagen Bank National Marine Sanctuary. Each site will be occupied during day and night conditions;
2. Use experience marine life observers to count seabirds within 400m of the research platform and marine mammals and surface fish schools (e.g., Bluefin Tuna) within 800 m of the research platform, at each of the 44 sites (day conditions only);
3. Use the SEABOSS to grab-sample sediment type and grain size at 44 sites;
4. Use SEABOSS instrumentation to sample water temperature, depth, water column stratification and chlorophyll at 44 sites;
3. Use a fishing vessel(s) to capture Sand Lance using a specially modified beam trawl and by Japanese rake. Samples to be used to investigate life history parameters;
4. Use solar PTT satellite tags to track movements of Great Shearwater seabirds relative to sand lance distribution and abundance;
5. Use of natural fluctuations in sand lance abundance as a proxy for commercial removal of biomass or biomass loss induced by climate change to provide insights into the impact of such scenarios on species and the coastal communities that are dependent on them.

Conference Presentation: Rargom Annual Science Meeting 2014

Valentine, P.C., Wiley, D.N 2014. Storm currents have sorted glacial sediment on Stellwagen Bank into sheets of clean coarse-grained sand, producing a large expanse of substrate suitable for an important forage fish (sand lance; *Ammodytes*)

Abstract: Stellwagen Bank is a shallow (25-70 m) north-south oriented bank located in southwestern Gulf of Maine. The bank surface is sand and gravel of glacial origin. Multibeam sonar and video imagery of the central part of Stellwagen Bank (360 km<sup>2</sup>) revealed features (sand sheets, ripples) whose morphology indicates sediment has moved from the bank's gently-sloping east flank onto its more steeply-sloping west flank. Bathymetric imagery, groundtruthed with 881 grain size analyses of surficial sediment samples (0-2 cm) indicates a lag deposit of coarse-grained sand (0.25 – 2.0 mm) with minor gravel is present to depths of 50 m, and large sheets of it extend onto the west flank. Fine-grained sand (0.063 - 0.25 mm) is sparse except on the lower west flank (50-70 m). Mud is all but absent on the bank crest. Published reports of sediment transport modeling suggest that tidal currents are too weak to erode the bank surface; but that wave currents generated by major storms with winds from the northeast, aided by tidal and wind-driven currents, resuspend and transport fine-grained sand and mud off the bank.

Sandlance (*Ammodytes*) are small (10-20 cm) schooling fish that are a major food source for marine mammals, fish, and seabirds on Stellwagen Bank. Coarse-grained sand substrate with very low mud content is the preferred habitat for sand lance that feed on zooplankton in the water column by day and hide in the sandy seabed by night to avoid predators and to hibernate during the winter. In the surveyed area, coarse-grained sand substrate covers an area of ~180 km<sup>2</sup>. Mapping of substrates and observation of sand lance are underway to determine a) the area of suitable substrate on the entire bank, b) when the species is present, and c) its role as prey in the bank's food web.

### **Whales and waves: zooplankton accumulation, fish and humpback whale foraging response, and the shoaling of internal waves at Stellwagen Bank**

Partners: WHOI, University of Lisbon

Platform: R/V Auk

Funding: WHOI Seagrant

PI: Pinada, Wiley

Description: This is a long-term (2009) ongoing investigation into the role of internal waves in concentrating predators and prey in the SBNMS.

Publications:

Pineda J, V. Starczak, J. da Silva, K. Helfrich, M. Thompson, and D. Wiley. (submitted) Whales and waves: zooplankton accumulation, fish and humpback whale foraging response, and the shoaling of internal waves at Stellwagen Bank. *Limnology & Oceanography*.

### **An analysis of vessel transits in the Hauraki Gulf and the potential industry impact of speed reduction measures for reducing Bryde's whale mortality from ship strike**

Partners: University of Auckland, International Fund for Animal Welfare (Australia), Port of Auckland

Funding: International Fund for Animal Welfare (Australia)

PI: Constontine, Wiley

Description: This project uses AIS data for the Hauraki Gulf National Marine Park to map vessel traffic in the area relative to Brydes whale sightings. The project uses a report card format developed by Wiley et al (2011) to inform mariners of their compliance relative to voluntary speed reduction zones.

### **Whale Alert**

Partners: West coast sanctuaries. IFAW, Conserve IO, Canadian Whale Institute, Cornell University, USCG, on-and-on...

Funding: IFAW

PIs: M. Carver, R. Ramage, B. Winney, D. Wiley

Description: Version 2.0 includes substantial updates as follows:

(1) expansion of Whale Alert to the west coast (focus on blue whales), (2) expansion of Whale Alert to Atlantic Canada and Quebec, (3) inclusion of NOAA PORTS data where available, (4) the ability of mariners and other to report whale sightings (citizen science), (5) the ability of mariners and other to report dead, injured or distressed (e.g., entangled) animals (6) provide weather data (7) creation of a cloud database that scientists can use.

Publications:

Wiley, D., L. Hatch, K. Schwehr, M. Thompson, & C. MacDonald. (2013) Marine Sanctuaries and Marine Planning: Protecting endangered marine life. United States Coast Guard *Proceedings*. Fall 2013: 15 – 20.

David Wiley<sup>1</sup>; Roland Arsenault<sup>2</sup>; Moira Brown<sup>3</sup>, Michael Carver<sup>4</sup>, Patrick Ramage<sup>7</sup>; Kurt Schwehr<sup>2,8</sup>; Michael Thompson<sup>1</sup>; Brad Winney<sup>9</sup>, Jaime Jahncke. Whale Alert: A Tool for Reducing Collisions between Ships and Endangered Whales. *AAAS 2015*, San Jose, CA  
Awards: NextGov Bold Award for “technological innovation in government service”.

### **Designated Habitat Research Area**

Mike Thompson attended over 15 NEFMC meetings regarding the development of the Stellwagen DHRA and the Research Area. Provided all data collection, scientific and public presentation material and spatial analysis for Stellwagen's Sanctuary Ecological Research Area SERA II proposal. These ongoing analysis required the collection of updated Fishing Vessel Trip Report data from 1996-2010 data with more a recent 2011/2012 analysis, the addition of Vessel Permit information, VMS data from 2006-2012, Massachusetts Ocean Partnership (MOP) Recreational Fishing Data, NMFS Observer Data and sediment classification from SASI and USGS, bathymetric data and closure areas. These datasets are continually being analyzed and over 200 maps have been made to support this proposal.

The New England Fishery Management Council (NEFMC) has selected the Stellwagen Designated Habitat Research Area (DHRA) and reference area as one of the preferred alternatives in the Omnibus Essential Fish Habitat Amendment. The proposed DHRA includes a reference area that would exclude all types of bottom fishing capable of catching groundfish along with party/charter and recreational fishing (fishing for tuna and other pelagic fish would be allowed). The reference area would serve as a control area for scientific studies on habitat use and recovery. Almost half of the DHRA would be located in the sanctuary. Establishing a dedicated location for long-term research is a recommendation in the sanctuary's Final Management Plan. The DHRA would be the first such area in the Western Gulf of Maine area. The New England Fishery Management Council will be holding public hearings on the amendment this summer and fall.

### **Stellwagen Sanctuary Seabird Stewards Project**

Partners: Mass Audubon, USF&WS, NOAA Fisheries

Platform: R/V Auk and whale watchin boats

Funding: Blake Nuttall Fund; USF&WS, NART

PI: Runfola, Thompson

Description: Long-term research and monitoring citizen science program using standardized and non-standardized ship board transects to identify trends in seabird abundance, diversity and habitat use

### **Quantifying the Influence of Speed on the Large Commercial Vessels' Source Levels**

(FY 13-14 Funding awarded to L Hatch & S Van Parijs (NEFSC) from NMFS Ocean Acoustics Program)

Particular interest in the influence of speed on vessel source levels is driven by increasing implementation of speed reduction measures for large commercial vessels in areas and during time periods when the risk of collision with large whale species is high. Such measures have been in place in Northeast US waters since June 2009 to reduce vessel strikes with North Atlantic right whales, and questions have arisen regarding whether the mandated speed reductions have resulted in lower ensonification levels. The GIS databases that have been built for the IFAW-SBNMS speed compliance study were used to identify vessels with multiple close approaches to acoustic recording units deployed in and around the SBNMS. Speed at each closest point of approach was identified. Additional information from AIS is being used to further determine operational variance for these multi-speed approaches, including differences in draught. These analyses will be followed by source level quantification for identified approaches and used to assess influence of speed on variance.

### **Development of Metrics to Characterize Marine Soundscapes**

(FY14-15 funding to L Hatch and S Van Parijs-NEFSC from the NMFS Ocean Acoustics Program; collaboration with P Auster-UConn/Mystic Aquarium and National Parks Service's Natural Sounds Program/Fort Collins, CO)

The US National Parks Service's Natural Sounds Program has developed machine learning tools to relate their substantial acoustic recording data from across US continental park holdings to various GIS predictive variables such as vegetation, topography and climate. Through this collaboration, we are using the high resolution recording data collected within the SBNMS and similarly high resolution GIS predictor variables (e.g., bathymetry, sediment type, oceanography) to see whether and how much such variables can predict variance in noise levels throughout the sanctuary. The goal is to be able to groundtruth the behavior of such a model within the sanctuary, where such data assets are rich, so that we can develop acoustic metrics that can be used in less well studied coastal marine environments. Ultimately, this would support the use of autonomous acoustic recordings as bioassay tools.

### **Identification and Characterization of Atlantic Cod Spawning Activity**

(FY14 NMFS Collaborative Research funding to S Van Parijs/NEFSC; FY14 funding to Saltonstall-Kennedy Grant Program to C McGuire-The Nature Conservancy, Micah Dean, Bill Hoffman --Massachusetts Division of Marine Fisheries & D Zemeckis-U Mass Dartmouth; in collaboration with L Hatch-SBNMS, S Van Parijs-NEFSC and Sector 10 groundfish fleet) Collaborative efforts between SBNMS, Northeast Fisheries Science Center, Woods Hole Oceanographic Institution, U Mass Dartmouth, and Massachusetts Division of Marine Fisheries to incorporate autonomous recording units that listen for cod spawning sounds into long-term research using acoustic tags and other methods to locate cod spawning areas were expanded in FY14 to include partnership with The Nature Conservancy and fishermen from Sector X. NEFSC and SBNMS directed funds were acquired from NMFS programs, with external partners funded by a successful Saltonstall Kennedy grant active for the next three years. Fall 2014 deployments will include 6 archival passive acoustic units, 50+ telemetry receivers and two passive acoustic gliders. Engagement continues with ongoing Northeast Fishery Management Council efforts to further protect spawning cod, including poster and oral presentations at Council meetings and for specialized Council task forces.

### **NOAA Noise Reference Station Deployment and Permitting**

(FY14-15 project leveraging OAR-PMEL capacity, NMFS Science Center vessel time and NMFS Ocean Acoustics Program funding)

Channel Islands and Stellwagen Bank NMSs are acquiring two long term listening stations (2 year sequential deployments) as part of a NOAA-wide initiative to increase passive acoustic data holdings for the purpose of informing the agency's management of ocean noise. A third unit has been deployed just outside Olympic Coast NMS. Both the CI and SB sensors will be deployed in October 2014, and will be two of a total of nine units being deployed in all NOAA-managed regions to compare trends in mostly (SBNMS as the exception) deep water low frequency ambient noise levels. Support and expansion of this work is a focus of a newly-convened ONMS Ocean Noise Working Group.

### **NOAA Ocean Noise Strategy**

(Co-chaired by L. Hatch, SBNMS, J. Harrison, NOAA Fisheries Office of Protected Resources & J. 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 to convening two workshops to develop a comprehensive noise budget for the oceans and model marine mammal distributions and densities. This effort subsequently led to the development a new cross line office strategy to promote more comprehensive management of underwater noise in US waters, and to continue to direct science tool development to support NOAA's noise management objectives. An internal NOAA meeting to develop a management framework was held in February 2013 in Silver Spring. This framework will be available in draft form for internal NOAA review this fall. See <http://noaa.cetsound.gov> for more information. Further development and implementation of this framework's place-based objectives is a focus of a newly convened ONMS Ocean Noise Working Group.

## **EDUCATION AND OUTREACH (Anne Smrcina):**

### **OUTREACH MEDIA**

**Press Releases/Media Advisories/Feature Stories** – The summer was dominated by the Whaleship *Charles W. Morgan's* 38<sup>th</sup> voyage, which included a significant NOAA and SBNMS partnership. Several press releases/media advisories were issued from the ONMS public affairs office, which were reviewed and edited at the sanctuary, including 1) NOAA/Mystic Seaport Partnership; 2) unveiling of Tom Freeman artwork (*Morgan* and SBNMS whales), 3) *Morgan* day trips into the sanctuary, and 4) OceansLive programming related to the *Morgan* sails into the sanctuary. Other press releases issued over the past few months (either directly by ONMS or in partnership with NMFS) with SBNMS elements include the continued growth of the Whale SENSE program, the release of an expanded Whale Alert app, and the use of unmanned aircraft systems for ocean monitoring. A release from the New England Aquarium (with input from the sanctuary) on excellent whale watch opportunities this year due to high numbers of sand lance led to excellent media coverage nationwide, including an extended piece on the CBS Evening News with Scott Pelley that highlighted Dave Wiley's work with the USGS.

**OceansLive Web TV Shows** – Nine OceansLive half-hour live web television shows were planned in conjunction with the *Morgan* 38<sup>th</sup> Voyage. Topics for the shows included: A Whaleship among Whales; Tag, You're It!; Sea Change in Marine Technology; Provincetown—Whaling Town to Whale Capital; Danger Zone—Threats to Whale Survival; Historic Ships of the 38<sup>th</sup> Voyage; Art of the Whale; Women and Whales; and Can Your Hear Me? Whales and Sound. Several sanctuary staff were interviewed (either on board the *Morgan* or in the Provincetown Museum studio). Anne Smrcina was the content developer and a writer for the shows.

### **EDUCATION**

**Annual Education Coordinators Meeting** – From Sept 14-19, Anne Smrcina attended an ONMS Education Coordinators meeting in Santa Cruz, CA. Among the topics covered were: 1) use of the Next Generation Science Standards in developing curricular materials; 2) increasing importance of social media, including Twitter and Facebook; and 3) importance of incorporating climate literacy components in education/outreach materials, as appropriate.

**2014 Student Marine Art Exhibit and Calendar** – The collected winning artwork from the 2014 Marine Art Contest is being framed and will start a regional tour very shortly with expected stops at the JFK Federal Building in Boston, Cape Cod National Seashore, Salem National Historic Site Visitor Center, South Shore Natural Science Center, Rhode Island Audubon Society Education Center and NOAA Fisheries office in Gloucester. The artwork has also been incorporated into a 2014/2015 calendar that will be distributed via the SBNMS and Massachusetts Marine Educators websites.

**2014 Student Marine Art Contest** – Deadline for the annual Marine Art Contest for students was May 2, and 800 entries were received with many outstanding creations. The contest is sponsored by the Massachusetts Marine Educators, with co-sponsorship by the sanctuary, NE Aquarium, Provincetown Center for Coastal Studies, and Whale and Dolphin Conservation. The theme of the contest was "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 2015 contest will be announced within the next month.

**Undergraduate Course with Massasoit Community College** – A three credit introductory marine science course was offered through Massasoit Community College in the spring at MCC’s Lakeville facility and a fall version of the course is being hosted at South Shore Natural Science Center (Norwell). The course provides an introduction to a variety of marine disciplines, including physical oceanography, geology, invertebrate zoology, marine mammalogy, ichthyology, ornithology, maritime heritage and ocean exploration technology. Contact Anne Smrcina for more information about this effort.

**Possible Graduate Interdisciplinary Education Course on Art and Science for Teachers** – The sanctuary is exploring the possibility of contributing to a graduate level short course for teachers that combines art and science (specifically targeted to team teachers from elementary and middle schools).

## **PUBLICATIONS**

**Stellwagen Bank E-Notes/Constant Contact Notices** – Several issues of *Stellwagen Bank E-Notes*, the sanctuary’s online publication, have been released this year, including Jan-Mar, Apr-May, June, and July-August issues, with a Sept-Oct issue now in development. In addition to posting the issues to the sanctuary website, *Constant Contact* notices also go out to our email list of some 4,000 individuals (newsletter mailing lists, staff lists, and management plan/scoping comment lists). This service has an updating/ unsubscribing service that would be unavailable through the regular NOAA email service. The *E-Notes* publication is also distributed on a number of electronic bulletin boards and listserves. SAC assistance in distributing this publication is appreciated. Contact [anne.smrcina@noaa.gov](mailto:anne.smrcina@noaa.gov) to provide any group contacts or individual names.

**Morgan 38<sup>th</sup> Voyage Support Materials** – For the *Morgan’s 38<sup>th</sup> Voyage*, the sanctuary produced a rack card (10,000 copies) that was distributed to tourism centers on Cape Cod, our education partners, libraries and to the whale watch fleet. The sanctuary also produced a series of four bookmarks that highlight the transition from whaling to watching (including research). The bookmarks (20,000 of each) were distributed in the NOAA tent at all of the shoreside village locations during the voyage, at libraries throughout the region, and at sanctuary exhibit/education partner locations. The bookmarks are intended as a long-term sanctuary outreach product (extending beyond the *Morgan* voyage).

**Fact Sheets** – The sanctuary will continue to produce fact sheets on an as-needed basis. During the *Morgan 38<sup>th</sup> Voyage*, headquarters staff provided content for a series of fact sheets about the socioeconomic value of whaling to New England communities and changes over time as the industry no longer played a role in those communities. A fact sheet has also been prepared about the new Center of Excellence in Bioacoustics and Marine Mammal Conservation Research here at the sanctuary.

## **EXHIBITS (Deborah Marx and Anne Smrcina)**

**Cape Cod National Seashore Sign** – With input from the sanctuary, the Cape Cod National Seashore has installed a boardwalk sign about whales and the sanctuary at Herring Cove Beach in Provincetown.

## **MARITIME HERITAGE (Deborah Marx and Matthew Lawrence):**

### **RESEARCH**

Stellwagen Bank sanctuary entered into a Memorandum of Agreement with Northern Atlantic Dive Expeditions, Inc. (NADE) to conduct collaborative archaeological site characterization on shipwrecks deeper than 130 feet. SBNMS maritime heritage remote sensing surveys have located several sonar targets beyond a depth accessible to SBNMS dive staff and reduced budgets have prevented the utilization of a ROV to characterize the resources. To date, NADE has characterized two shipwrecks sites, one is a vessel that carried a granite cargo and the other is a wooden-hulled fishing vessel. NADE has provided high-quality photographic and video documentation for both sites and written site characterizations based on their dives. The collaborative agreement furthers SBNMS maritime heritage management goals and provides a recreational opportunity that is compatible with resource protection. NADE bears the entire financial burden of conducting the fieldwork.

### **RESOURCE PROTECTION**

In partnership with NADE, SBNMS staff installed the sanctuary's third recreational dive mooring on the *Heroic* shipwreck located on Stellwagen Bank at a depth of 100 feet. The mooring was funded through a grant received by NADE from the PADI Foundation. The *Heroic* is the sanctuary's first historic site protected by a dive mooring. Prior to deploying the mooring, SBNMS staff conducted a Section 106 of the National Historic Preservation Act consultation with the Massachusetts State Historic Preservation Officer (MA SHPO). The MA SHPO concurred with the sanctuary's finding that the shipwreck was eligible for listing on the National Register of Historic Places. Furthermore, the mooring's deployment and subsequent public notification of the shipwreck's location would have no adverse effect on the historic property.

### **OUTREACH**

Staff presented on the sanctuary's maritime heritage at a variety of local venues including the Quincy Historical Society, Mystic Seaport, and the Steamship Historical Society of America's annual Shposium. Staff archaeologists also traveled farther afield and for the first time presented three papers at the Beneath the Sea Scuba Show in New Jersey. One of the papers was delivered jointly with Heather Knowles of NADE.

### **Charles W. Morgan's 38<sup>th</sup> Voyage: Interpretive Panels (Dede Marx):**

The ONMS provided co-branded (Mystic Seaport and ONMS) interpretive panels to sanctuary visitor centers and partner venues across the nation to raise awareness of the *Charles W. Morgan's 38th Voyage*. Eleven locations outside of New England received panels to connect a larger audience to the voyage and the greater American maritime experience of whaling. The exhibit panels also engaged the public to think about ocean stewardship and the transition from whaling to whale watching. The panel themes were: History of the *Charles W. Morgan*, *Morgan's Restoration and 38th Voyage*, Whaling's Cultural Crossroads and Influence on American Culture, the Perils and Profits of Whaling, the Changing Perceptions of Whales and Whaling to Watching in the National Marine Sanctuaries. Host venues included: Gateway to NOAA in Silver Spring, MD; Great Lakes Maritime Heritage Center in Alpena, MI; Hawaiian Islands Humpback Whale National Marine Sanctuary Visitors Center in Kīhei, Maui; Papahānaumokuākea Marine National Monument Mokuāpapa Discovery Center in Hilo, HI; NOAA Inoyue Regional Center in Honolulu, Oahu; Hearst Castle in San Simeon, CA; Channel Islands Boating Center in Oxnard, CA; Grays Harbor Historical Seaport Authority, WA; Tauese P.F. Sunia Ocean Center in Pago Pago, American Samoa; San Francisco Maritime National Historical Park in San Francisco, CA.

Charles W. Morgan's 38<sup>th</sup> Voyage: Dockside Exhibit (Dede Marx and Anne-Marie Runfola):

The ONMS joined Mystic Seaport as a program partner for the *Charles W. Morgan's 38<sup>th</sup> Voyage*. The ONMS sought to highlight how National Marine Sanctuaries interpret our maritime past, promote ocean conservation, and are engaged in cutting edge research to understand the marine world. The whaleship acted as an ambassador for ocean conservation and ONMS' partnership with Mystic Seaport raised the visibility of National Marine Sanctuaries through local and national media coverage of the event. The *Morgan's* voyage began on 17 May and included stops in New London, Newport (ship tours only with no dockside village), Martha's Vineyard, New Bedford, Provincetown (no ship tours and a NOAA/ONMS/SBNMS organized dockside exhibit), Boston, and the Massachusetts Maritime Academy on Buzzards Bay. At each port, visitors toured the historic vessel and explored the shore side attractions that included a NOAA/ONMS/SBNMS tent in the dockside village. The information provided in the NOAA tent helped the public to gain a better understanding of why it is essential to protect the oceans and its resources. Docents provided information on local whale populations, whale research projects, and whale watching opportunities in the Stellwagen Bank National Marine Sanctuary. Touchable "props", such as baleen, were available to help demonstrate how whales feed and what they eat. A video display and static interpretive panels featured information on the National Marine Sanctuary System, Stellwagen Bank NMS, whales, whale research, and whaling heritage. A "create your own whale hat" activity let the public decorate and assemble a humpback whale hat to wear and take home as a souvenir of their visit to the *Morgan* and their participation in its 38<sup>th</sup> Voyage. During the port stops 33 staff, volunteers, and Sanctuary Advisory Council members from the Office of National Marine Sanctuaries, Stellwagen Bank National Marine Sanctuary, National Marine Protect Areas Center, National Marine Sanctuary Foundation, NOAA Office of Law Enforcement, and NOAA Fisheries Service helped man the booth. In total, 62,736 people toured the ship and dockside village during the 24 days it was open to the public. Highlights of the journey included the ship's homecoming to New Bedford, docking next to the USS *Constitution* in Boston, and sails to SBNMS to observe whales in their natural environment. On 6 August, the *Charles W. Morgan* returned home to Mystic Seaport where it is back open to the public. Additional support for the dockside exhibit was provided by NOAA's Preserve America Initiative and the National Marine Sanctuary Foundation.

Charles W. Morgan's 38<sup>th</sup> Voyage: OceansLIVE

During the three days that *Charles W. Morgan* sailed in Stellwagen Bank sanctuary, the ONMS broadcast live webTV episodes via the website OceansLIVE. Since few people were able to sail on the *Charles W. Morgan*, the telepresence productions allowed anyone with a WWW connection to virtually join the 38<sup>th</sup> Voyage. Over the three day sails, the OceansLIVE team broadcast nine separate episodes on topics ranging from acoustics to shipwrecks. Live video from the on the water, either from the *Charles W. Morgan* or its support vessel the historic eastern rig dragger *Roann*, was beamed ashore by a wireless network created by the University of Connecticut's Northeast Underwater Research Technology and Education Center (NURTEC-UConn) to a studio hosted by the Pilgrim Monument and Provincetown Museum. Once there, video production specialists from the University of Rhode Island's Inner Space Center and the ONMS crafted compelling 30-45 minute shows. Archived shows are available at [www.OceansLIVE.org](http://www.OceansLIVE.org).

## **VOLUNTEER PROGRAM (Anne-Marie Runfola):**

### **Numbers at a Glance**

Note: FY 2014 hours still being reported. Numbers will increase in the next few weeks.

**227:** Number of currently active volunteers (including partner organization volunteers)

**6,663:** Number of hours donated by volunteers in FY 2014

**25,723:** Total number of volunteer hours logged since the inception of the program in Spring 2011.

**508:** SAC member time and talent measured in hours in FY14.

**79:** Number of volunteers who participated in citizen science-related work in FY14.

**57:** Number of research cruises with volunteers in active roles in FY14.

**42:** Percentage of volunteer program hours devoted to citizen science in FY14.

**\$1,273,028:** Estimated economic value of volunteer services from 2011-2014.

**276,085:** Number of people reached directly through volunteer program events. Adding outreach through media and secondary means (program advertisements in newspapers, on web, and social media; articles in magazines and e-newsletters; name in festival flyers; research cruise reports on Mass Bird and E-Bird; word of mouth through volunteers and program participants, e.g.), the volunteer program has reached millions of constituents (media analysis in progress now. Specific numbers will be reported in future).

### **STELLWAGEN SANCTUARY SEABIRD STEWARDS**

Overall: This season, S4 has continued collaborating with 5 whale watch business partners in five ports from Gloucester to Provincetown. Seabird Stewards have collected data on 38 whale watch trips from June through September, and on four standardized cruises on the *R/V Auk*. With a few more whale watch trips to go and two more *Auk* cruises planned, one in October, and one in conjunction with the National Audubon Christmas Bird Count for December, S4 will complete close to 50 trips in 2014. We now have enough standardized data to perform some initial analysis this winter and spring.

Funding: The S4 Program received a \$5,000 grant from NOAA North Atlantic Regional Team in Summer 2014.

Outreach: Anne-Marie Runfola educated the public and recruited new S4 volunteers through a number of programs this summer and fall, including

- Expanded the S4 training program to three workshops—in Scituate, Cape Cod (at Long Pasture Audubon Center), and Gloucester (at Maritime Gloucester). Trained 27 new or returning volunteers. Total of active S4 Stewards is now
- Participated as a marketplace vendor at the second annual Cape Cod Bird Festival on September 19-20th, reaching 220 members of our target audience.  
<http://www.capecodbirdclub.org/bird-festival/marketplace-vendors/>

BUMP Partnership: On September 3<sup>rd</sup>, Anne-Marie Runfola and MA Audubon's Director of Important Bird Areas, trained 16 Boston University Marine Program students in preparation for the S4 cruise. On September 15<sup>th</sup>, Anne-Marie, Wayne and five other experienced S4 Stewards collaborated with Boston University to run a BUMP – S4 research cruise. The S4 team worked with eight students to collect seabird data in the sanctuary. Several of the students used this data as part of their research projects for the course. Other benefits of this partnership have included S4 internships for BUMP students and funding for an additional standardized cruise each year.

### **VOLUNTEER PROGRAM EXPANDS TO SUPPORT OTHER RESEARCH PROGRAMS**

Working with staff to determine needs has led to recruiting and training volunteers for other specialized roles at the sanctuary. In addition to the S4 program, volunteers provided support on 16 other sanctuary research cruises in FY14, including studies of sand lance with USGS, internal waves with Woods Hole Oceanographic Institution, and Great Shearwater tagging with Dave Wiley at SBNMS. Volunteers acted as marine mammal and seabird observers and data recorders, logged biomass data from the *R/V Auk's* echo sounder, and provided general cruise support. These volunteers include seabird experts from the S4 program (they come from MA Audubon, independent bird tour companies, bird clubs, e.g.), naturalists from the whale watching industry, university students and post docs, and researchers who are retired from partner organizations.

### **STELLWAGEN SANCTUARY AMBASSADORS**

#### Whaleship Charles W. Morgan

The volunteer program received NOAA funding to join the outreach collaboration between Mystic Seaport and the sanctuary for the 38<sup>th</sup> voyage of the *whaleship Charles W. Morgan* in Summer 2014. This support enabled the volunteer program to provide much-needed support, with 13 volunteer Ambassadors donating 78 hours at the sanctuary's exhibit tent in the *Morgan* village, directly reaching over 64,000 people along the route.

#### Morgan Provincetown Port Visit

Anne-Marie Runfola organized two children's events and exhibit pavilion in Provincetown, MA in conjunction with the *whaleship Charles W. Morgan's* visit to Stellwagen Bank National Marine Sanctuary. An estimated 60,000 people visited MacMillan Wharf, where the pavilion is located, during the three-day event, and thousands more were reached through local media and a Tourism Board events flyer. Six other organizations joined SBNMS at the pavilion for some or all of the 3 days: Mystic Seaport and Spouter the Sperm Whale, the Center for Coastal Studies, NOAA Northeast Fisheries Science Center, National Parks Service, the Dalvero Academy (public mural), and Judy Dutra, showcasing her book "Nautical Twilight--The Story of a Cape Cod Fishing Family".

Ten volunteers helped prep and run the show, for a total of 108 hours of donated service. Anne-Marie and the volunteers were joined by a mix of SBNMS, Regional and Headquarters staff members, and our National Marine Sanctuary Foundation President and CEO, Jason Patlis. Our Superintendent, Craig MacDonald, Deputy Superintendent, Ben Cowie-Haskell, Director of the Office of National Marine Sanctuaries, Dan Basta, and President of the Ocean Futures Society, Jean-Michel Cousteau, all stopped by to talk to visitors and volunteers.

120 children and their family members participated in two events: *A Child's Sanctuary: Whales in Your Backyard* at the Provincetown Library, one during the *Morgan's* 3-day port visit and one on July 30th during Family Pride Week. The library provided a place to display the information

boards about the *Whaleship Charles W. Morgan* and Stellwagen Bank Sanctuary for the 2.5 weeks between events.

The four-day event helped us reach thousands of local residents and tourists. It also allowed us to expand existing partnerships and create several new ones, including with the Provincetown Harbormaster and the Provincetown Library. Anne-Marie has already laid groundwork with the Harbormaster to return to MacMillan Wharf pavilion with volunteers to run more family activities.

#### Morgan-SBNMS Libraries Program

The volunteer program received NOAA funds to partner with local libraries to promote the 38<sup>th</sup> Voyage of the *Charles W. Morgan* and the maritime heritage and marine mammals of the National Marine Sanctuaries, with particular focus on Stellwagen Bank. Anne-Marie used two strategies to leverage the library network to increase our reach in the media, and with local businesses and the general public: Promotional Materials, and *Child's Sanctuary* events. She worked with the MA State Library to distribute electronic materials about Mystic Seaport, the *Morgan*, and SBNMS to all libraries in the state of Massachusetts. She offered to send any library a package of rack cards, bookmarks, fact sheets and educational activities to help branches create displays and events related to the voyage of the *Morgan* and the sanctuary. 15 libraries requested and received this package from the sanctuary. Anne-Marie is rotating two sets of panels highlighting the *Morgan's* history, restoration, summer voyage, and the sanctuary's work to research and protect whales in the present and future. MA State Library Summer Library Program Guide: <http://guides.masslibsystem.org/othersummerresources>

In addition, Anne-Marie and her Ambassador corps offered special programming to libraries in strategic ports along the *Morgan's* route—Provincetown, New Bedford, Scituate, Plymouth, and Boston. To date, the team has run two events in Provincetown, one in New Bedford, two in Scituate, and one Plymouth. Boston Main Library needs at least a six-month lead and the date has not yet been approved by them, but Anne-Marie will continue to pursue this market. These *Child's Sanctuary* programs include information and displays about the *Morgan* and hands-on activities focused on the maritime heritage and whales of the National Marine Sanctuaries, particularly Stellwagen Bank. Reproducing and displaying the *Morgan* interpretive panels has further publicized the historic sail, even now that the vessel has returned to its home port in Mystic, CT. The program has also aimed to help participants identify ways to support ONMS and get involved. Anne-Marie is training more volunteers so that she can offer the programs at more libraries next year.

#### School Volunteers Supported by the Ruthetta Halbower Fund

The family of the late Ruthetta Halbower, a long-time sanctuary volunteer, started a fund in her name to support the sanctuary's volunteer program in its work with schools. In Spring 2014, the fund's first recipients, teachers and students at an intermediate and elementary school in Scituate, ran two sanctuary events, reaching 350 students. The Gates Intermediate School's environmental club teamed up with Anne-Marie to train students from Hatherly Elementary School to run whale activities for the entire sixth grade. Scituate High School and local tech school students who helped start the Gates Environmental Club returned to Gates to help the middle school run their annual Stellwagen Stream to Sanctuary Day for the entire 7<sup>th</sup> grade. Anne-Marie is building this program as a model for any town, to encourage schools to offer an environmental club at every level, with a built-in sanctuary partnership and a practice of older students mentoring the younger ones.

### Girl Scout Oceanography Badge Highlights SBNMS

On May 14<sup>th</sup>, 40 Girl Scouts earned their oceanography badges, and for the first time, the activities included SBNMS content. Volunteer Program Coordinator, Anne-Marie Runfola, worked with Sanctuary Ambassador and Girl Scout, Caitlin Fitzmaurice, to add sanctuary content to the local badge requirements, which will now be offered regularly for local scouts. 10 Cadet Scouts trained in April at the sanctuary office in preparation to lead a short talk about the sanctuary and hands-on activities: Stellwagen Bank Sanctuary Jeopardy, Food Web Tangle, Eat Like a Whale, Blubber Glove, Ocean Currents, Mapping our Oceans and Sanctuary, and Draw a Right Whale.

In addition, Anne-Marie and Caitlin are planning to adapt *A Child's Sanctuary* programming to offer as "Fun Patch" events to Girl Scouts around the Eastern Massachusetts Region. SBNMS will help create the embroidered patch that Girl Scouts will earn for participating in these events.

### **A CHILD'S SANCTUARY**

In FY14, volunteers, and occasionally other sanctuary staff, helped run 18 educational events, reaching 4,842 children, parents, caregivers, and teachers. Venues include local schools and libraries, as well as NOAA HQ in Silver Spring, MD for its annual open house and the Maryland Science Center to kick off the series, "Get to Know NOAA."

### Preserve America Initiative

Last year, the Volunteer Program received a \$12,000 NOAA Preserve America Initiative grant to interpret the sanctuary's maritime heritage at an expanded number of communities across New England. Anne-Marie worked closely with the Maritime Heritage Team of Matthew Lawrence and Dede Marx to create an activity guide, activity kits, training and educational events for the sanctuary and four partner organizations—Seacoast Science Center, Maritime Gloucester, South Shore Natural Science Center and Cape Cod Museum of Natural History. As an update, we have distributed kits to all four groups, trained sanctuary Ambassadors, cross-trained staff and volunteer docents at each organization, and helped them run their first events. All four organizations have started employing the kits at summer camps, schools, and for the general public at their institutions this summer and fall, reaching thousands so far. They have all committed to using the kits to provide sanctuary-related programming throughout the year, greatly broadening our reach and solidifying our partnerships.

### **SANCTUARY ADVISORY COUNCIL (Elizabeth Stokes and Nathalie Ward):**

**The SAC held three meetings during fiscal year 2014** – 40th SAC Meeting, 5 November 2013, Plymouth; 41st SAC Meeting, 12 March 2014, Rockland; and. 42nd SAC Meeting, 29 May 2014, GARFO Gloucester, MA.

**Additionally, there were five SAC recruitments including** – 30 Sept 2013: 14 Primary and Alternate; 31 Dec 2013: 4 Primary and Alternate; 31 Mar 2014: 7 Primary and Alternate; 30 June 2014: 1 Alternate Seat; and, 30 Sept 2014: 6 Primary and Alternate.

**SAC Volunteer Hours** – totaled 508 hours total, which included regularly scheduled meetings, Business and Tourism Subcommittee meeting and Executive Committee conference calls.

**Served on SAC Cross-Cut Committee (2012-2014)** – to a) develop strategy for improving Advisory Council(s) "Member's Orientation" packet across ONMS system of Advisory Councils

with goal of promoting program awareness, providing practical SAC orientation materials and, instituting new direction for Councils' engagement.; and b) Designed and developed SAC fact sheet template for model and implementation across ONMS Councils.

### **EXTERNAL AFFAIRS (Nathalie Ward):**

**CARIB Tails**, a web-hosted project ([www.caribtails.org](http://www.caribtails.org)) launched in January 2014, enlists yachters and cruisers in the Wider Caribbean Region (WCR) to assist with humpback whale research. Metrics of success include fluke photographs that may "match" individuals in the North Atlantic Humpback Whale Catalogue (NAHWC, maintained by Allied Whale at the College of the Atlantic in Maine, USA) or identify new individuals to the North Atlantic population of humpback whales. During the 2014 season, CARIB Tails' fluke analysis added *four new individuals* to the NAHWC (n = 8,000). Year I (2014) was an especially productive season considering the Catalogue only had @ 60 flukes previously from the Eastern Caribbean Region. CARIB Tails objective is to advance understanding of critical areas needed for habitat protection, raise public awareness, and motivate marine mammal conservation action and stewardship of our *shared* population of humpback whales (n = 1,000).

Funded by: Sister Sanctuary Program partners and Cetacean Society International.

Media Outreach: "Humpback Tail Photos Wanted" (Cruising World (August 2014); readership.

**Served as Advisor for UNEP/SPAW LifeWEB Project Committee for its Marine Mammal Action Plan for the Wider Caribbean Region (2012-2014)** which resulted in: a) Applied integrated marine spatial planning approaches and tools to showcase planning for the management of critical marine habitats and migration routes across jurisdictional boundaries involving local planners, scientists and decision makers; b) Reviewed and provided guidance on essential habitats and regional-scale migration routes for marine mammals in need of better management through collation and GIS-mapping of existing data including socio-economic information (e.g. fisheries, shipping, energy, coastal and offshore infrastructure development, tourism, etc.); c) Refined our understanding of humpback whale critical habitat and hotspots to inform MMPA designations in WCR; and, d) Attended LifeWEB Transboundary Management Scenarios Meeting (Puerto Rico, April 2014), which resulted in Puerto Rico chosen as pilot project to assess marine mammal and ship strikes impacts for SPAW Programme.

**Capacity Building Workshop to Address Lethal Human Impacts on Marine Mammals of the Wider Caribbean Region.** Craig MacDonald attended "Joint IWC-SPAW Workshop to address Collisions between Marine Mammals and Ships with a Focus on the Wider Caribbean" (Panama, June 2014).

**OPERATIONS AND SPECIAL PROJECTS (Ben Cowie-Haskell, Alice Stratton, and Dave Slocum):**

**Vessel Operations**

- Auk operated for 56 days at sea and conducted 16 internal missions in FY2014. This was a 35% increase over last year's operational schedule. Missions were conducted for both internal projects and with external partners.
- Some of the projects and partners who used the *Auk* are:

<b>Project</b>	<b>Partner</b>
Seabird Surveys	MA Audubon
Unmanned aircraft deployment	NOAA Office of Marine and Aviation Operations
Boston Univ. Marine Program	Boston University
Whale tagging	National Geographic, Oregon St. Univ., Syracuse Univ., Center for Coastal Studies
Internal wave study	WHOI
Soundscape study	Northeast Fisheries Science Center
Seabird satellite tagging and blood sampling	US Fish and Wildlife, Boston University, UMass Amherst, Long Is. Univ.
Seafloor Habitat Recovery and Monitoring Study	University of Connecticut
Mapping sand lance habitat	USGS
Groundtruthing satellite observations with ocean properties	UMass Boston
Wave glider deployment for detection of right whales	Cornell University
38 <sup>th</sup> Voyage of <i>Charles W. Morgan</i>	Mystic Seaport

**Facility Operations**

- Annual pier condition assessment and repairs were conducted in early September. It is an ongoing and significant effort to maintain our marine facility.
- A contract has been awarded for the replacement of the Sanctuary's aging back-up generator and automatic transfer switch. A new generator and ATS will provide reliable back up power during frequent power outages due to winter storms.
- Cosmetic repairs were made to the Annex. Rotted corner boards on the dormers of the Annex have been replaced with PVC construction materials in an effort to avoid deterioration in the future.

**Enforcement**

Officer Tim Wilmarth of NOAA's Office of Law Enforcement is co-located in the sanctuary office and serves as our enforcement coordinator. He coordinates the assets of OLE, Massachusetts Environmental Police (also co-located in the sanctuary office) and US Coast Guard.

## FY 14 Sanctuary Patrol Summary (Estimates):

<b><u>At Sea Vessel Patrol</u></b>	<b><u>Total Hours</u></b>
MEP	94
Joint MEP/NOAA	34
USCG at Sea	N/A
Joint USCG/NOAA	16
<i>Total</i>	<i>144</i>
# of contacts by MEP	136
<b><u>Enforcement Actions</u></b>	6
<b><u>Air Patrols</u></b>	<b><u># of Patrols</u></b>
Joint USCG/NOAA	0
USCG	N/A
USCG Auxiliary	2

## Special Projects

38<sup>th</sup> Voyage of the Whaleship *Charles W. Morgan*— Supporting the 38<sup>th</sup> Voyage of the recently restored Whaleship *Charles W. Morgan* was the ONMS' highest priority in 2014 and required “all hands on deck” by the SBNMS team. Intensive planning for the event spanned over 5.5 months beginning in Dec. 2013. NOAA (SBNMS and ONMS) partnered with the Mystic Seaport on the Voyage which was among the Seaport's most high profile, intensely collaborative undertakings in its history. The partnership was mutually beneficial in that it allowed the Mystic Seaport to use the whaleship as an ambassador for ocean and whale conservation and it allowed NOAA to highlight how National Marine Sanctuaries interpret our maritime past, promote ocean conservation, and are engaged in cutting edge research to understand the marine world. The whaleship traveled up the coast from New London to Boston visiting seven ports along the way. At six of the ports there was a large dockside village exhibit including a tent exhibit dedicated to SBNMS and ONMS. The exhibit was produced and coordinated by Deborah Marx and was staffed by a minimum of three people, including volunteers, for a total of 24 days. 60,000 people visited the dockside villages throughout the Voyage. The focus of the Voyage was the MORGAN's visit to Provincetown where it sailed into SBNMS on July 11 and 12 and had a peaceful encounter with humpback whales for the first time in about 90 years (there were no harpoons present). The MORGAN's visit to Provincetown and SBNMS was chronicled on OceansLIVE web TV which broadcast live 3 times a day and was hosted by maritime archaeologist Matt Lawrence and ONMS' Kate Thompson and produced by education coordinator Anne Smrcina. The episodes have been archived and can be viewed at <http://oceanslive.org>.

Unmanned Aerial Systems—In May, SBNMS served as a demonstration site for the capabilities of the *Puma* unmanned aircraft. The mission had two objectives: (1) establish a methodology for counting fixed gear from UAS and compare counts with shipboard observations and (2)

determine infrared camera capabilities for detecting human beings on board or detecting different water masses depending on sea surface temperatures. For two days, the aircraft was launched and recovered from the RV *Auk*. Pilots from the NOAA Office of Marine and Aviation Operations flew the aircraft with the assistance of Matt Pickett, ONMS Flight Operations Manager. Assistant Superintendent Ben Haskell served as the principal investigator and all mission objectives were achieved.

Emergency Response—Staff prepared an Emergency Response Portfolio to provide guidance and resources for staff use during a spill response or other emergency event. The Portfolio provides basic response guidance, including contact information, staff responsibilities, useful resource links, and basic GIS layers, in an easily accessible PDF format. This is a living document which will be reviewed and updated as necessary every 6-12 months.

Vessel Discharge—In response to request from the SAC, staff prepared an analysis of potential regulatory options to address vessel discharge within the sanctuary. After consultation with EPA, Mass DEP and other sanctuaries that have dealt with the issue, we prepared an options paper for presentation to the SAC. Staff continue to pursue discussion with the Cruise Line International Association (CLIA) to learn more about the types of treatment systems used by vessels that transit SBNMS, as well as the amounts, types, and locations of any discharges that occur in or near SBNMS.