

Atlantic States Marine Fisheries Commission

NEAMAP Board Meeting

*February 5, 2014
8:30 a.m.-12:00 p.m.
Alexandria, VA*

NEAMAP Board Members: David Pierce, Mark Gibson, Wilson Laney, Martin Gary, Cheri Patterson, Mark Alexander, Lynn Fegley, Stew Michels, Russ Allen

ASMFC staff: Shanna Madsen, Pat Campfield, Genny Nesslage, Jeff Kipp

Others: Chris Bonzak, Jim Gartland, Dan McKiernan, Brandon Muffley, Paul Diodati

On phone: Linda Mercer, Sally Sherman, Steve Heins

1. Welcome and Introductions (*S. Heins*) 8:30 a.m.
2. Approval of Agenda- **Agenda was approved**
3. Approval of Meeting Minutes from Feb 21, 2013- **Mins were approved**
4. Public Comment- **No comment**
5. NEAMAP Survey Reports (**All presentations available through ASMFC's website**)
http://www.asmfc.org/files/Meetings/Winter2014/NEAMAP_Board_Presentations_Winter2014.pdf
 - a. NEAMAP Southern New England/Mid-Atlantic Nearshore Trawl Survey (*C. Bonzek/J. Gartland*)

Highlights:

- All ageing samples processed thru 2012
- They've seen an increase in data used in stock assessments
 - NEAMAP data was most recently used in the 2014 butterfish SAW/SARC
- Implemented FEED new onboard data collection system
- They have engaged in 10 collaborative sample collection efforts (HSC maturity, longfin squid sex and maturity, lobster ageing, menhaden and fluke gonad sampling, butterfly ray graduate study, net video measurements to ensure tow effectiveness)

RSA funding has been the principle challenge for the SNE/MA trawl survey. Chris B showed the group the annual timeline for RSA funding and emphasized that VIMS doesn't get the first check until June/July, after the spring survey is complete and personnel and bills already paid. They have plans to improve this issue in 2014 with new requirement for auction winners to pay 25% up front when they leave auction, improving timing of cash distribution to RSA projects.

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Chris B. also noted that there were significant changes to 2014 auction due to enforcement cases/concerns, that may have a decrease in number of boats participating and is likely to decrease the number of permits, decreased revenue, and fishermen buy-in. It is desirable to have NEAMAP not dependant on RSA funding, especially since the councils would like to diversify the projects.

David P questioned how NEAMAP data were used in the butterfish stock assessment. Chris B replied that NEAMAP data used as indices in the assessment. David P said it was encouraging to see NEFSC starting to use the data. Jim G noted that besides butterfish, NEFSC has winter flounder, Loligo, and summer flounder indices. David P. asked if the Center was satisfied and if they can use NEAMAP regularly as a time series. Jim G said they are starting to, and uses for NEAMAP data should increase as time series gets longer. David P asked if confidence intervals included when data is provided. Chris said that CIs always included and they are on the website in tabular form.

David P asked who was pushing to get NEAMAP off of RSA funding. Chris B said a couple of states and RSA scientists calling for them to move to other stable funding. David P. noted that he is one who has been pushing for moving RSA towards something like observers for example. David P was glad to hear of NEAMAP data uses and noted that the NEAMAP data was important for the shallow water stratum. Chris B said if the SNE/MA survey wasn't ready on the shelf when Bigelow came onboard, NMFS would've had to create new inshore survey at great cost. They're getting a pretty good deal given only federal costs are the auction and RSA permitting.

Pat C noted that Frank Almeida had asked for a rundown on how the NEAMAP data has responded to data applications in assessments requests. ASMFC sent a letter in response and Russ regularly communicates with Bill Karp and the pop dynamics branch. Jim G. noted that there is a record of all such requests maintained on their website.

Stew M said that NEAMAP is stepping up to help sample HSC and is critical to maintaining the survey inputs for HSC trends and the ARM model.

b. Maine-New Hampshire Inshore Trawl Survey (*L. Mercer*)

Highlights:

- 2013 Spring and Fall surveys successfully completed
 - Had minor difficulties in completing all stations in Fall due to fixed gear interactions/avoidance
- They completed comprehensive biosampling except food habits were primarily limited to monkfish
- There are numerous uses of survey data in stock assessments
- They have a growing backlog of ageing samples, trying to hire more ageing personnel
- Moving toward onboard electronic data collection, buying e-fish board; but survey has been level funded and challenging to add new technology or processing capacity
- Plans to collaborate with NMFS Atlantic salmon and UNH researchers

David P asked if the interaction with lobster gear gotten worse in recent years. Linda M responded that there was less cooperation in Eastern part of the state, better cooperation in Western Maine.

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Time is spent finding clear tow paths but overall, there are fewer problems than when the survey started. Sally S said that starting in 2012, the fall survey moved up to start last week of September, reducing gear interactions and also leading to better weather. Linda M noted that the captain is pretty skilled at towing around lobster traps.

c. Massachusetts DMF Bottom Trawl Survey (*D. Pierce*)

Highlights:

- Jeremy King keeps a close eye in order to start when fish are on the ground in Nantucket and Vineyard Sound and other survey areas
- They have common encounters with fixed gear they need to work around.
- Bottom temp measurements are closely monitored, temp increase noted in 2013 and overall increase since survey started in 1978, most notably in Buzzards Bay (southern part of survey range)
- Regional trends in aggregate biomass show consistent decreasing trend across sub-areas in the Spring survey; Fall survey shows no significant trend when prominent dogfish catches removed;
- Winter flounder biomass decreased dramatically over the 30+ year time series

Mark Gibson noted that their fluke trends are interesting, and very similar to RI's trawl survey, with downtick in recent years. Chris said they've also seen the same pattern in the Mid-Atlantic survey with a decrease in the last 6 years.

Wilson L noted that bay anchovy trends could be useful to forage fish work, given their long time series. David P said that the MA survey is not only useful for stock assessments but also very useful for Marine Spatial Planning in coastal MA.

Lynn F asked how data are stored and if they available externally. David P said that data automatically dumped to NEFSC database; Lynn F asked they had to hire contractors to establish the database and data feeds, or if they used in-house capacity. David P said there are no contractors needed and they relied on survey leads expertise (Artie Howe, Jeremy K) and close working relationship with NEFSC (Paul Kostovich's group).

Mark A asked how is the net towing measured and what size net is used. David P said that MA realizes they have a very old net and you could check with Jeremy King for the details. Mark A said that CT needs to get a new net and they ordered the last one from Italy. They are looking for an easier, cheaper alternative, possibly a synthetic mesh net.

6. Discuss Long-term Funding for NEAMAP

Pat C noted that letters have been sent in the past. The present idea is to send a letter to the coastal Congressionals but they have not yet gone state by state to collect signatures. The letter would be signed by all state directors from NC to ME and Bob Beal. The MSA discussion is ongoing and does include some language relative to fishery independent surveys. Steve H said that the draft language would designate up to 80% of law enforcements fines in each region for fishery independent surveys. He asked if anyone has seen that yet.

Wilson L said that he has not seen it, but in the past the letters. He was wondering about the merits of packaging them all together not singly. In the past the thinking was there might be an advantage of packaging all fisheries independent surveys the commission does. Wilson said he sat in on part of the executive committee workshop and they're talking about seeing if ASMFC

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states would be willing to group together. You could make a good case that NEAMAP should be funded through MSA.

Steve H asked what we could we do as a Board to support a funding venture. Pat C said that Bob made the point that we need to go at this as a package. It's less effective to go piece by piece. We might not need to go through the Policy Board to create this letter. It does not really matter what process we pursue but we need to get the states in the region to sign the letter. The other idea floating is to provide a rundown of other RSA projects comparing their value and making the argument that if the SNE/MA survey has long term funding, then the other projects could be funded in its place.

Wilson L asked Linda M if she indicated that the ME/NH survey was on Wallop-Breaux funds. Linda M responded that yes they use some for staff salaries but the rest is from Cooperative Research funding. Russ B commented that for more detail on ME/NH they fund 250k, but the survey costs 400K, so the funds mostly do come from Cooperative Research but that can vary considerably. Jim G commented that he had listened to the NE Council meeting, and had heard they might receive some money and they were trying to figure out how to prioritize it. Russ B said this was because the Councils are funded for 5 years of money and any money not used goes back to the Treasury. The NE council has a surplus currently and they want to invest that money into cooperative research endeavors.

Wilson L wondered what the possibility was that VA could get some Wallop-Breaux funds, if some other projects are wrapping up. Cheri P said the problem with that is being able to afford match. Clark A said another issue is you can't match federal funds with federal funds. Stew M noted that we've been talking about this funding issue for a lot of years and sending a lot of letters, but we haven't really moved forward at all. Maybe we should discuss this with federal aid folks if states cannot match their funds. Steve H suggested tapping into the law enforcement funds from MSA reauthorization.

Wilson L mentioned other possibilities. In the past they have some sort of ACFMA reauthorization and a reauthorization of the Anadromous Fish Conservation Act. Linda M said we could work to get some of those appropriations, and getting funds restored to the Anadromous Fish Conservation Act. Wilson L agreed and said there are some congressional folks that might be willing to champion that. Cheri P suggested the senator from NH since there is a fisheries disaster in the NE states. Steve H said the timing may be good to ask for more considering the disaster funding, there may be some support for increasing appropriations as a way to help mitigate the disaster situation.

Russ B said there has discussion on whether past letters are effective, and they are, and they're trying to bring some more resources to bear. The challenge is when you lobby for money like this it needs to be a set amount, we need to make some cost control measures, we're talking about 1.1 mil for MA and 400K for ME/NH portion. Chris B noted that 12% of the budget goes to NFI for their administrative needs.

Wilson L said that he was thinking back to David P's earlier comments, about SNE/MA perhaps having to switch vessels. He asked about the long term, and the fact that maybe we should talk about those sorts of concerns. He wondered what it would take to do that side by side comparison of vessels if they needed to switch. Jim G said that for the vessel, we have backups

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of everything, we have redundancies. Jimmy (the boat captain) has a son who is going to step into his place. The boat itself is in good shape. Issues could occur, but there is no big risk. Chris B pointed out that on the west coast they contract with vessels and never do comparison tows.

Pat C asked Russ B if a new letter would be valuable. Russ B responded that this issue is on the list of things that they're trying to find money for. They definitely understand the importance of NEAMAP but this is a permanent commitment and that takes time to fund.

7. MAFMC Research Set-Aside Auction

8. Reports and Recommendations from NEAMAP Committees 10:20 a.m.

a. Data Management (*C. Bonzek*)

b. Operations (*J. Gartland*)

9. Review and Approve NEAMAP 2014 Operations Plan- **ACTION**

Jim G said the 2014 Plan was very similar to 2013 due to the major revamp between 2012-2013. For the 2014 Plan, the main thing we changed was Task 10- Analytical Committee to conduct review of stock assessment needs relative to NEAMAP data collection efforts every three years; Operations Committee to conduct annual review of how NEAMAP data have been used in stock assessments; Trawl Technical and Operations Committees to use annual Operations review to assess opportunities for NEAMAP surveys to address needs. Everyone seemed to be fine with that change.

Mark A commented that the line spacing is point 8, making it hard to read. He also thought that we needed to clarify on pg.14 (almost) raw data. Jim G said he can elaborate on that. No one else had any other comments.

10. Discuss Inclusion of Other Surveys to NEAMAP

Pat C noted that there are additional state surveys which have been compared at the technical level and we need to reengage the states. He said we have a number of starting points laid out for draft criteria.

There were a number of edits to some of the wording.

Brandon M asked what the benefit of the NEAMAP program in general was and what the goal of the criteria exercise was. Chris B noted that this idea originated when we had the data workshop last June when we tried to get everyone on board with collecting electronically. Someone asked how to be included in NEAMAP.

Wilson L said that to the credit of the NEAMAP program, they have set the standard, as far as tech advances and people want to adhere to the same standards. The other advantage, at some point and time Congress finally understands the cost of fisheries management the NEAMAP program could gain stable funding. Pat C added that the other piece of background is that it is like a sister program as SEAMAP. SEAMAP has been able to establish a consistent sampling program with data distribution and this has borne a lot of fruit funding wise.

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Stew M commented that there was a difference between designing and adding a survey to NEAMAP. The others that originated did so organically. He wondered if these criteria are going to limit the ability to bring in other surveys that are not fully developed. Mark A asked if the intent was to create a group of surveys with comparable methodologies. Chris B the documents is not to make people change but to coordinate and advise surveys that might want to join the NEAMAP umbrella. People were fearful of coming in and having to change in the past, but now may see the advantages of being a part of NEAMAP.

Stew M said he was having a hard time trying to figure out what we were trying to get at. He was not clear if we're trying to exclude or encourage growth. Jim G noted that he Sally Sherman and Jeremy King were working together to standardize methodologies and approaches. NEAMAP creates a mechanism for how they work together and coordinate more. They could have done these things on their own but this creates a way for them to collectively improve. Pat C noted that this is a voluntary inclusion, it was not meant to exclude anyone.

Wilson L commented that this created a community of practice for people who are doing trawl surveys. Mark A thought the existence of the NEAMAP board already did that. Jim G said that the NEAMAP board does meet year to year, but is not necessarily familiar with the nuts and bolts of sampling. If we did not create a document with some sort of criteria people might not know what the standard is.

Pat C said that another benefit to consider, being included with NEAMAP can lead being included in more stock assessments, or even smaller things like bulk orders for gear etc. Cheri P asked if other surveys might be looking for funding and is that going to dilute the funding that we already have. Shanna M responded that this is why the last bullet was included, but this could be revised. She also noted that there seemed to be a lot of confusion as to why surveys would want to be included in NEAMAP, and suggested that it might be useful to compile a list of benefits to NEAMAP as well as the partners.

Brandon M said he was in favor of the concept of NEAMAP partners working together, but this should be achieved at the committee level. Pat C noted that it was only recently that NEAMAP began holding workshops. Chris B said that another possible benefit is that currently at the committee level it's really hard to get people to actively participate, so joining NEAMAP may encourage participation.

The group agreed it may be useful to create a summary of benefits of NEAMAP to the surveys themselves and the NEAMAP as a whole, and that would be best vetted over the committee level.

11. Elect a Vice Chair

Cheri P nominated Mike Armstrong, and Paul Diodati agreed.

12. Other Business- There was no other business

13. Adjourn

12:00 p.m.

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NEAMAP Operations Committee

Notes for Report to NEAMAP Board on 2/4/2015

The NEAMAP Operations Committee discussed 14 objectives/tasks during a conference call in January 2014, and subsequently presented these to the NEAMAP Board at the February 2014 meeting in Alexandria, VA as recommendations for approval. The list included several action items for the NEAMAP Board, Operations Committee, Data Management Committee, and Trawl Technical Committee. The Board approved all of these items, and they were incorporated into the 2014 NEAMAP Operations Plan.

While no direct meetings of the NEAMAP Committees were convened following the February Board Meeting, appreciable progress was made on several key tasks. Representatives from each of the NEAMAP Committees either led or contributed to these accomplishments.

Specifically, a relatively stable source of funding was secured for both the Mid-Atlantic/Southern New England and Maine/New Hampshire Trawl Surveys, which directly relates to Task 1 in the Operations Plan. The Massachusetts DMF survey has stable financial support through their Commonwealth. This new funding was the result of combined efforts of personnel at the Northeast Fisheries Science Center, ASMFC, VIMS, and the Maine DMR.

Besides securing this funding, members of the NEAMAP Committees played a key role in the development of and participation in a joint NEAMAP/SEAMAP Catch Processing Workshop that took place in Charleston, SC on January 8 & 9, 2015. Representatives of fishery-independent surveys, ranging from Maine to Georgia and including Federal partners, were in attendance. A wide range of topics were discussed, including some elements of survey design, nearly all aspects of each program's catch handling/data collection protocols, and ideas for both expansion of data collection efforts and coordination among surveys, where possible. It is worth noting that an appreciable amount of time was devoted to the discussion of maturity stage classification and the standardization of this classification, which directly relates to Task 7 in the Operations Plan. The meeting concluded with a recommendation to continue these inter-survey conference/collaboration efforts, with the next area of focus addressing issues related to survey gear performance and standardization (supports Task 9).

Besides making appreciable progress on Tasks 1 & 7, the NEAMAP Operations Committee efforts in 2014 also addressed goals outlined in Tasks 4, 10, and 11. Specifically, this Committee developed the NEAMAP Operations Plan for 2015 (Task 4), and PIs/co-PIs of the three NEAMAP Trawl Surveys, all of whom are Operations Committee members, continued to provide data to all applicable Mid-Atlantic and New England stock assessments in 2014 (Task 11). While in past years, lines of communication were not always open between data users (assessment scientists) and data producers (survey scientists), better access to assessment schedules and improved

communication between scientific parties have led to an increase in the number of assessments in which NEAMAP Survey data are being or have been considered for inclusion (Task 10). Finally, while progress on tasks outlined in the 2014 Operations Plan was limited to a subset of the whole, remember that several of these tasks were relatively large in scale and/or meant to be ongoing items, so completion of all of these tasks in 2014 was not entirely feasible.

2015 Operations Plan

Northeast Area Monitoring and Assessment
Program
(NEAMAP)

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**2015 Operations Plan for the
Northeast Area Monitoring and Assessment Program
(NEAMAP)**

January 1, 2015 to December 31, 2015

I. INTRODUCTION

The Northeast Area Monitoring and Assessment Program (NEAMAP) is a cooperative state/federal fishery-independent research and data collection program implemented between the Gulf of Maine and Cape Hatteras, NC. The program is intended to maximize the effective capability of fishery-independent survey activities and maximize the usefulness of data collected by such surveys, through cooperative planning, innovative uses of statistical theory and design, and consolidation of appropriate data into a useful data management system. The overall approach of NEAMAP emphasizes the collection of fishery-independent data to fill specific short-term and long-term management needs.

This Operations Plan outlines the tasks to be conducted during 2015 to further develop and implement the NEAMAP.

II. MISSION

The mission of NEAMAP is to provide an integrated and cooperative state/federal program to facilitate collection and dissemination of fishery-independent information for use by government agencies, the fishing industry (commercial and recreational), researchers, and others requesting such information. To meet the needs of fishery management and fish stock assessment, NEAMAP provides the framework for collection and use of fishery-independent data. This includes coordination of existing programs, development and implementation of new programs where necessary, and dissemination of the data collected. NEAMAP will serve to coordinate fishery-independent data collection and data management activities among the states and federal Partners in the Northeast and mid-Atlantic regions, as well as between NEAMAP and other existing regional initiatives (e.g., SEAMAP, FIN). The intent of the program is not to change existing programs, but to coordinate and standardize procedures and improve data accessibility.

The NEAMAP Goals and Objectives are included in Appendix A.

III. OPERATIONS

A. *Data Collection and Data Management*

Data collection and data management procedures for individual surveys will be coordinated among participating agencies in order to enhance the usefulness of the data, minimize costs, and increase the accessibility of information to fishery managers, administrators, and researchers. NEAMAP Technical Committees will review these surveys and programs and

make recommendations for their possible integration into the NEAMAP.

NEAMAP will build on, and coordinate with, current activities such as SEAMAP and individual data collection programs, to develop optimum resource sampling and assessment capabilities.

NEAMAP projects in the nearshore area are currently defined as waters bounded by the 6.1m and 18.3m depth contours between Montauk, NY and Cape Hatteras, NC and the 18.3m and 36.6m depth contours in Rhode Island Sound and Block Island Sound; waters of the Gulf of Maine bounded by the New Hampshire/Massachusetts border and the US/Canadian border from the 6m contour to the 12 mile territorial limit, excluding Cobscook Bay; and Massachusetts territorial waters including all of Cape Cod Bay and Nantucket Sound.

B. NEAMAP Administration

At all levels, the NEAMAP is consensus driven. The NEAMAP Board will serve as the executive level committee for the program. The Board will oversee the design and implementation of the NEAMAP, establish policy to guide program and partner participation, and serve as the final decision making authority for the program.

Technical Committees will be assigned to develop technical details of individual surveys and perform relevant tasks assigned by the NEAMAP Board. The Technical Committees will report directly to the Board. Existing Atlantic States Marine Fisheries Commission (ASMFC) Species Advisory Panels and the Commission Advisory Board (or a combination of both, depending on the issue) will be utilized to obtain industry input into the development and implementation of the NEAMAP.

The NEAMAP Board will be comprised of one representative from each partner agency. Technical Committee members will be assigned by their respective Board members. Each committee will elect a chair and vice-chair to oversee the committee actions. The chair will serve a two-year term. At the conclusion of the chair's two-year term, the vice-chair will become chair and the committee will elect a new vice-chair.

All committees shall reach decisions by consensus, if possible. If consensus is not possible, the NEAMAP Board will reach a final decision by vote, with each partner agency casting one vote. If consensus is not possible at any other committee level, the committee shall identify options and present the benefits and drawbacks of each option. These options will be forwarded to the NEAMAP Board for review and development of a recommendation.

The ASMFC will provide staff support and other administrative functions.

IV. NEAMAP GOALS

The following tasks are required to develop and implement the NEAMAP during 2015.

Administrative Goals

Task 1: *Support Continuation of the NEAMAP Nearshore Trawl Surveys*
(Goal 1)

Objective: Support continuation of the NEAMAP Nearshore Trawl Surveys through coordination with Principal Investigators and all NEAMAP Committees as needed. Develop options and strategies using planning documents as guidance. Discuss coordination amongst current NEAMAP partners and other existing programs. *Establish standards for the admittance of additional surveys into the NEAMAP.* Continue to document budget needs of each NEAMAP project. Maintain pool of staff to assist in surveys as needed between surveys and post this list on the NEAMAP website.

Team Members: NEAMAP Board and Committees

Resources: Administrative planning budget needed; Implementation costs.

Schedule: *Ongoing 2015*

Task 2: *Identify and Secure Additional Program Funding*
(Goal 1, Objective 2)

Objective: Continue to secure funding for the NEAMAP program. Identify additional sources of funds for the purchase of equipment to be shared amongst NEAMAP partners. Identify funds to assist surveys in gear characterization work, as well as efforts to characterize gear performance and quantify changes in relative catchability. Explore opportunities for acquiring funds to re-establish survey personnel exchanges.

Team Members: NEAMAP Board and ISFMP Policy Board

Resources: Conference call funds may be required to develop these issues.

Schedule: *Compile and Discuss Funding Sources to support these additional purchases/activities (Ongoing in 2015)*

Task 3: ***Develop coordinated objectives and approaches for outreach and education regarding the NEAMAP program to convey coordination among NEAMAP survey activities***
(Goal 4)

Objective: Review ongoing outreach efforts by the NEAMAP Nearshore Surveys and continue to develop objectives and approaches for a coordinated message and effort. Expand presentation of NEAMAP activities to the Policy Board.

Team Members: NEAMAP Researchers and Staff

Resources: Funds may be required for travel.

Schedule: *Ongoing 2015*

Task 4: ***Develop 2016 Operations Plan***
(Goal 1, Objective 1)

Objective: Develop 2016 NEAMAP Operations Plan, utilizing the NEAMAP 2012-2016 Management Plan, Technical Committee recommendations, and other directions from the Operations Committee and the NEAMAP Board.

Team Members: NEAMAP Board, Operations Committee, and Staff

Resources: No additional funds required.

Schedule: *Draft Operations Plan (Fall 2015/Winter 2016)*
NEAMAP Board Approval (Winter 2016)

Task 5: ***Maintain Website***
(Goal 3, Objective 1)

Objective: Maintain website to provide background information on NEAMAP. Update summary data (e.g., abundance indices, length frequencies, age-length matrices) currently on the NEAMAP website and add new data types (either from existing surveys or new surveys) as it becomes available. Add information regarding assessment scheduling.

Team Members: NEAMAP Data Management Committee and Staff

Resources: No additional funds required.

Schedule: *Ongoing 2015*

Data Collection Goals

Task 6: *Continue to research and evaluate new technologies for incorporation into the field, laboratory, & analysis components of NEAMAP Trawl Surveys.*
(Goal 2)

Objective: Continue to explore and evaluate technologies that would either increase or streamline data collection efforts (e.g., hardware/software designed to electronically capture catch and catch-related data, underwater cameras, current meters, bottom mapping equipment, etc.). Look to other similar surveys to identify equipment and software that could potentially streamline the collection of existing data types, augment the types & amounts of useful data collected, and/or facilitate the handling and analysis of these data for the NEAMAP Surveys. Use other sources (e.g., internet, trade shows, etc.) to identify these technologies as well. Evaluate the equipment/software with respect to feasibility of implementation and benefit to the surveys in terms of additional data collected and efficiencies gained. Use documentation developed by other programs as well as contacts within these programs to guide the evaluation process. Provide reports to the NEAMAP Board regarding equipment acquisition priorities. Acquire and implement the desirable technologies as resources permit.

Team Members: NEAMAP Trawl Technical & Data Management Committees

Resources: Funds are required for equipment purchase.

Schedule: *Ongoing 2015*

Task 7: *Continue to coordinate, and in some cases standardize, data collection approaches for those parameters which are of interest to multiple surveys (e.g., type of length measurements taken for a given species, type of ageing structures collected, etc.), and/or are somewhat subjective in their classification (e.g., maturity stage determination).*

Objective: Task the Trawl Technical committee with developing standards for maturity stage determination for use by the NEAMAP surveys. Work in collaboration with the NEFSC and other appropriate agencies. Hold workshops as needed to disseminate coordination efforts.

Team Members: NEAMAP Trawl Technical Committee

Resources: Funds would be required for workshops, once they are developed.

Schedule: *Ongoing 2015*

Task 8: *Identify and recommend how to fill gaps in sampling, either through the expansion of existing surveys or the development of new surveys. Gaps could be spatial, temporal, species-specific, etc.*

Objective: Use reviews conducted by the Analytical Committee (Task 10, below) to identify gaps in survey coverage and define new or existing surveys that could be used to fill these gaps. Once the Analytical Committee identifies gaps, the Trawl Technical and Operations Committees will be responsible for identifying new surveys and/or expansions of existing surveys needed to address these deficiencies, and prioritize their value. Once identified, these options for new surveys/expansion of existing are to be presented to the Board, who in turn will direct the Trawl Technical Committee to begin design work for those identified by the Board as top candidate(s). Implementation will occur as funding permits.

For expansion of existing surveys, work closely with project Principal Investigators immediately upon identification of a potential expansion to identify willingness and feasibility of implementation. If favorable, present to the Board prior to beginning any design work and implement as practicable following completion of design work and once funding becomes available.

Team Members: All NEAMAP Committees, Survey PIs

Resources: No additional funds at this time. Implementation funds may be necessary in the future.

Schedule: *Ongoing 2015, to be done subsequent to Task 10*

Task 9: *Develop approaches for research to better understand catchability processes for the various NEAMAP surveys. Initiate steps to develop policy, approaches, and guiding documents for NEAMAP with regard to quantifying within-survey changes in relative catchability, particularly following intentional changes in survey operations.*

Objective: To begin, encourage/direct participation, either of Trawl Technical Committee members and/or survey staff, in any upcoming catchability workshops hosted by the NEFSC, as well as directing the Trawl Technical Committee (perhaps in conjunction with Operations Committee) to explore and document current accepted approaches and methods for quantifying changes in relative catchability.

Team Members: NEAMAP Trawl Technical and Operations Committees

Resources: Funds are required to attend workshops and convene members.

Schedule: *Ongoing 2015*

Data Management Goals

Task 10: *Evaluate NEAMAP data to ensure data collected by surveys continues to be responsive to and addresses management needs.*
(Goal 3)

Objective: Analytical Committee to conduct review of stock assessment needs relative to NEAMAP data collection efforts every three years (last conducted in 2012, so 2015 is next); Operations Committee to conduct annual review of how NEAMAP data have been used in stock assessments; Trawl Technical and Operations Committees to use annual Operations review to assess opportunities for NEAMAP surveys to address needs.

Team Members: Analytical, Operations, Trawl Technical Committees

Resources: Administrative budget.

Schedule: *Ongoing 2015, completion leads to initiation of Task 8*

Task 11: *Provide data in support of research and fisheries management.*
(Goal 3)

Objective: Provide data and metadata for stock assessments and other analyses supporting fisheries management. Develop an online open-access data portal for NEAMAP data survey indices. Ensure user registration for data access to both track demand for and application of these data, as well as to generate a list of contacts in the event of corrections to historical survey data. Have representatives familiar with the NEAMAP datasets attend stock assessment data workshops.

Team Members: NEAMAP Data Management Committee and staff

Resources: No additional funds required.

Schedule: *Ongoing 2015*

Task 12: *Develop NEAMAP Data Management Action Plan 2016*
(Goal 3)

Objective: Keep action plan for NEAMAP data management updated with latest plans. Include content, data flow, metadata, standard operating procedures, data management roles and responsibilities, and timeline for development.

Team Members: NEAMAP Data Management Committee and staff

Resources: No additional funds required.

Schedule: *2015*

Regional Program Coordination Goals

Task 13: ***Promote Consistency and Compatibility among Regional Programs***
(Goal 2, Objective 2; Goal 3, Objective 5)

Objective: Coordinate with existing regional fisheries statistics initiatives (SEAMAP, ASMFC Lobster Database, FIN, etc.) to promote consistency and compatibility between the programs. Provide liaison from the NEAMAP to these programs.

Team Members: NEAMAP Board and/or NEAMAP Staff

Resources: No additional funds required.

Schedule: *Ongoing 2015*

Task 14: ***Investigate Potential for Regional Processing Centers for Biological Samples***
(Goal 2, Objective 2)

Objective: Coordinate with ongoing activities of other organizations. Identify the location and scope of current processing activity. Convene ageing workshops as necessary and with available funds.

Team Members: Staff

Resources: No additional funds required.

Schedule: *Ongoing 2015*

V. NEAMAP 2014 ACCOMPLISHMENTS

NEAMAP Mid-Atlantic/Southern New England Nearshore Trawl Survey

The Virginia Institute of Marine Science (VIMS) completed full-scale spring and fall cruises (150 tows for each cruise – Martha's Vineyard, MA to Cape Hatteras, NC) for the NEAMAP Mid-Atlantic/Southern New England (M-A/SNE) Nearshore Trawl Survey in 2014. Spring catches were slightly smaller, while fall catches were appreciably larger than those in 2013; 177,337 specimens representing approximately 84 species were collected in the spring, while 1,131,499 specimens/133 species were caught in the fall. During the spring cruise, 5,491 fishes were sampled for ageing and 3,281 for diet, while the fall yielded 4,486 for ageing and 2,263 for diet.

VIMS project PIs have secured funding to support full survey operations in 2015. Specifically, the Northeast Fisheries Science Center has provided funds to the ASMFC for the NEAMAP program. In turn, a portion of these funds have been made available to VIMS, the amount of which is sufficient to support all field and laboratory operations of the NEAMAP M-A/SNE for 2015.

This survey continued to add new elements to its field sampling efforts in 2014. The main addition during the last field season was the collection of underwater video of the trawling operations. These efforts were designed to support investigations into gear performance under a variety of conditions as well as to begin to understand and quantify the behavior of various species relative to the survey gear. Information about trawl performance will be used to verify that the data generated by the trawl monitoring system are indeed representative of the geometry of the gear. Further, the footage will be used to investigate aspects of the gear not readily quantified by the suite of net sensors employed (e.g., position of sweep relative to footrope, water flow in the extension/codend, form of the webbing during set, tow, and haul operations, etc.). Observations on the behavior of fishes relative to the gear will be used to gain preliminary insights into the capture efficiency of the net for certain species and factors influencing the variability in capture efficiency, and be used to design rigorous experiments intended to quantify capture efficiency.

The survey also engaged in some new sample collection / data acquisition efforts as a result of collaborations with other programs. Gonad samples were collected from female striped bass at the request of the ASMFC Striped Bass Technical Committee, to support efforts meant to quantify fecundity of the coastal migratory population. Collection of gonad samples from Atlantic menhaden also continued so as to provide valuable fecundity data for this species; these data were identified as a critical need in the last stock assessment. Other collections primarily involved the acquisition of tissue samples to support genetic studies for various species (tautog, rough scad, butterfly rays, silver hake, etc.).

Survey staff participated in the ASMFC-sponsored summer flounder and scup ageing exchange in 2014. This exchange included several organizations that routinely age summer flounder and provide these data to the stock assessment for this species (VIMS [NEAMAP M-A/SNE Survey], NEFSC, Old Dominion University, and North Carolina Division of Marine Fisheries, to name a few) as well as organizations that were primarily interested in learning the protocols associated with ageing of these two species. Initial exchange results were encouraging

(particularly for scup), and it is expected that a follow-up exchange will occur and a full report of results will be available in the near future. NEAMAP M-A/SNE staff are also participating in the ASMFC-sponsored Atlantic menhaden ageing exchange in March 2015.

With respect to routine laboratory processing, ageing efforts have continued to keep pace with field collections. Age data are available for nearly all of the priority species through 2013, and all summer flounder, scup, and bluefish samples collected in 2014 have already been processed. As noted in past updates, there currently exists a backlog of elasmobranch (skates and dogfish) ageing samples. One of the main impediments to processing the elasmobranch samples is the time associated with cleaning and preparing the samples collected from the field. Students were employed on a part-time basis in 2014 to complete this portion of the processing, and they were able to make appreciable progress. We expect to continue this effort on a larger scale in 2015 through the hiring of an hourly position. As such, age data for skates and dogfish from this survey will be available in the near future. All stomach samples collected through the spring 2014 survey cruise have been processed, and it is expected that those collected during the fall 2014 cruise will be completed prior to the spring 2015 survey.

As noted in past updates, this survey makes its data available on the web via a number of links. In total, these were accessed by approximately 400 different researchers since 2012. The main website for the M-A/SNE Trawl Survey is www.vims.edu/fisheries/neamap, while the various data links are:

- Fishery Analyst Online – A GIS-based way to retrieve almost raw data. <http://fluke.vims.edu/fishgis/faovims/index.htm>
- Food Habits Data – Make customized queries to an online database of pre-calculated diet indices based on selectable criteria. http://www.vims.edu/research/departments/fisheries/programs/multispecies_fisheries_research/fish_food_habits/fishfoodhabitdata
- Abundance Indices – Clickable and downloadable copies of overall and age-specific (where appropriate) relative abundance indices based on both counts and biomass. Although many are not quite in final form, many are close enough that users can get an idea of where the project is going. http://www.vims.edu/research/departments/fisheries/programs/multispecies_fisheries_research/abundance_indices/index.php

To date, NEAMAP M-A/SNE Trawl Survey data have been used in stock assessments for Atlantic menhaden (included data collected by the survey on this species, as well as diet data of its most common predators) Atlantic sturgeon (ESA evaluation), butterfish, longfin squid, river herring, summer flounder, and winter flounder. This survey has also supplied data for assessments of: American lobster, Atlantic croaker, Atlantic sea scallop, black drum, black sea bass, bluefish, butterfish, horseshoe crab, scup, skates (clearnose, little, and winter), smooth dogfish, spiny dogfish, spot, striped bass, tautog, and weakfish. The results of some of these assessments are currently pending. In each case where the data were requested for an assessment but not incorporated, survey PIs were informed that it was due to the short time series of the data available, and not because of poor data quality. As noted previously, it is anticipated that the number of species for which NEAMAP M-A/SNE data is incorporated into the stock assessment process will continue to increase with each passing “round” of

assessments. For a full accounting of where the data from this survey have been used, both from a stock assessment and a general fisheries science standpoint, visit

http://www.vims.edu/research/departments/fisheries/programs/multispecies_fisheries_research/data_uses/index

The list is updated approximately quarterly.

NEAMAP Maine-New Hampshire Inshore Trawl Survey

The Maine Department of Marine Resources completed a full spring and fall survey of the Maine-New Hampshire (MENH) Inshore Trawl Survey area (Massachusetts border to the Canadian border). During the spring survey 114 tows were completed over 25 sea days from 5 May to 6 June, 2014. The fall survey was conducted from 29 September through October 31st completing 94 tows on 25 sampling days. Roughly 1400 otoliths were collected from winter flounder, American plaice, witch flounder, Atlantic cod, haddock, and white hake. Sex and maturity determinations were collected for yellowtail flounder, cod, haddock, plaice, winter flounder, witch flounder, monkfish, and white hake. Food habits data were also collected from monkfish in the fall survey.

Funds were secured for 2015 MENH Inshore Trawl Survey obtained through NOAA grants.

On the spring survey, Christine Lipsky and Julie Nieland from NOAA's NMFS salmon and endangered species branch, participated in the second and third weeks to continue a groundfish stomach sampling survey looking for alosines as prey. They also joined for two weeks on the fall survey for the same purpose. Samples were collected for the University of New England to track occurrence of sea lice in selected species. Samples were also collected for GMRI for analysis. Alewife samples were collected in both surveys from Penobscot Bay for Karen Wilson, a USM researcher looking at genetics. Winter flounder were tagged on the spring and fall survey this fall continuing a previously funded Northeast Consortium project lead by Keri Stepanek at MEDMR.

Trawl survey staff provided data to MEDMR co-workers for Northern shrimp assessment and management, Atlantic herring management, scallop research, American lobster, river herring research, rainbow smelt, winter flounder, and Atlantic halibut. Data was provided to New Hampshire Fish and Game on that portion of the survey.

MENH Trawl data were provided to ASMFC, NEFMC, MAFMC technical committees and NMFS personnel for assessments lobster, winter flounder, haddock, red hake, silver hake, pollock, and cod. Winter flounder otoliths were digitized for spring 2014. Haddock otoliths have been processed and the age data was provided for the most recent assessment. We are processing Atlantic cod, white hake, and American plaice as well. A complete dataset on more than 60 species was provided to NMFS GARFO for an EFH database.

Additional data requests were filled from NMFS GARFO, University of New England, University of Maine, University of New Hampshire, Penobscot East Research Center, Gulf of Maine Research Institute, and other independent researchers.

<http://www.maine.gov/dmr/rm/rawl/index.htm>

NEAMAP Massachusetts Division of Marine Fisheries Inshore Bottom Trawl Survey

The 37th spring and fall surveys were accomplished in 2014. 102 stations were completed during the May survey, all of which are considered acceptable for assessment purposes. 100 stations were completed on the fall survey to acceptable standards for all purposes. One additional fall station is considered representative for spiny dogfish only.

Over 2,900 scale/otolith or opercula samples, as well as sex and maturity observations, were taken from Atlantic cod, haddock, summer flounder, yellowtail flounder, winter flounder, windowpane flounder, black sea bass, scup, and tautog. Winter flounder, black sea bass, and tautog age samples were processed at the Division of Marine Fisheries age and growth lab in Gloucester, MA. Additional collections supported studies on range expansion of black sea bass, parasites in Atlantic cod, condition and feeding ecology of haddock, cod, and winter flounder, the biology and ecology of spiny dogfish, sexual dimorphism in black sea bass, and spatial structure of cod populations.

In 2014, survey data was provided in support of regional assessment efforts on Gulf of Maine haddock, Gulf of Maine Atlantic cod, SNE and GOM lobster, SNE/MA winter flounder, summer flounder, scup, and black sea bass. Numerous data requests were filled in support of: lobster habitat and recruitment dynamics, effects of water quality and land use on nearshore fish populations, creation of an essential fish habitat geodatabase, spatial modeling of alewife populations, habitat usage, and state and regional management guidance.

<http://www.mass.gov/eea/agencies/dfg/dmf/programs-and-projects/resource-assessment-surveys-project.html>

APPENDIX A – NEAMAP Goals and Objectives

Goal 1 - Cooperatively plan, evaluate, and administer fisheries independent data collection programs, including a state/federal near shore trawl survey and other NEAMAP-sponsored activities.

Objectives:

1. Develop an annual operations plan consistent with budget and operational constraints;
2. Develop an annual budget allocation plan, which considers program needs, annual operations plans, and participant capabilities;
3. Sponsor meetings to cooperatively plan and evaluate activities;
4. Sponsor special workshops and symposia to help evaluate or plan sampling strategies, designs, or methods;
5. Establish working groups, as needed, under the auspices of the NEAMAP committees with appropriate expertise, to assist in planning and evaluating NEAMAP activities;
6. Conduct annual internal reviews of program activities;
7. Conduct periodic coordinated external reviews of specific management, administrative, and technical elements of the program;
8. Coordinate and document NEAMAP activities, and disseminate programmatic information.

Goal 2 - Establish a coordinated, long-term, fisheries independent data collection program of Atlantic coast living marine resources from Cape Hatteras to Maine for the purpose of resource and habitat assessment and management.

Objectives:

1. Conduct routine surveys and special studies, as needed, of regional resources and their environments;
2. Coordinate data collection activities with ongoing surveys and data collection programs;
3. Collect data on species composition, biomass, relative abundance, distribution, and seasonality of living marine resources;

4. Record biological information to include size, age, sex, and reproductive condition for target species;
5. Identify and monitor essential fish habitat;
6. Collect environmental data coincident with living marine resource monitoring activities;
7. Provide biological specimens to cooperating agencies and other investigators upon request, subject to certain limitations (time, space, funding).

Goal 3 - Operate the NEAMAP data management system for efficient management and timely dissemination of fishery independent data and information

Objectives:

1. Design, implement, and maintain a NEAMAP data management support system that can be used to assess and monitor selected living marine resources and associated environmental and habitat factors;
2. Establish data handling and processing protocols for all NEAMAP data;
3. Compile and maintain a computerized directory of NEAMAP monitoring activities, including data summaries and inventories by gear, species, species group, and geographic area;
4. Identify and describe existing non-NEAMAP databases and activities that are of value to fishery independent assessments of regional living marine resources, and coordinate and integrate these, where possible, with the NEAMAP database;
5. Coordinate data management activities with and other existing programs, including common use of codes and formats;
6. Archive NEAMAP biological specimens and samples.

Goal 4 - Establish a comprehensive outreach program to secure funding and educate constituents on the actions, results, and benefits of the NEAMAP.

Objectives:

1. Develop an outreach package for Congress and other potential funding sources to secure long-term stable funding;

2. Develop methods to educate industry and the public about fishery independent sampling and data, including aspects such as the need for and benefits of fishery independent sampling, how the data are collected, and how the data are used;
3. Develop promotional materials that detail how NEAMAP data support fisheries management and natural resource stewardship, citing specific examples where appropriate;
4. Develop standardized, non-technical reports of survey results for distribution;
5. Encourage public and industry assistance and support in NEAMAP sampling activities.

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