

Omnibus EFH Amendment 2 Informational Interviews Summary Report

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1) Purpose, methods, and format

The purpose of these interviews was to collect information related to refinement and analysis of management alternatives proposed in Omnibus EFH Amendment 2.

The Executive Director reached out to various organizations including all of the groundfish sectors to make them aware of the Council’s intent to hold the informational interviews. He stressed that the focus was on primary participants in the fisheries, particularly individuals who had previously not participated in development of the amendment, or had participated to a limited extent.

After this initial outreach, general solicitation letter was emailed and mailed to the Council’s groundfish interested parties (200+ individuals by email, 800+ individuals by mail). Interested parties were instructed to submit applications via the internet, or by mail/fax, and some applied by phone. They were asked to select a preferred date and time from three choices, to indicate their geographic area of interest/expertise, and to summarize briefly the information they intended to present.

In the original solicitation (attached at the end of this report), the purpose of the meetings was characterized as follows:

The Council would like its staff to meet with fishermen from various areas, those who use different gear types to catch groundfish and who also have first-hand, current, and verifiable information about juvenile or spawning groundfish aggregations.

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The information collected will be reviewed by Council technical teams and may be used to refine the boundaries of the current alternatives, or may point to areas where further investigation is needed to support future changes. The Council believes fishermen's observations will be a useful addition to our knowledge about groundfish distribution and may provide insights into the behavior of juvenile and spawning fish.

We are looking for information that may help:

- Refine area boundaries, seasons and appropriate management measures
- Improve the analyses in the amendment by providing:
 - Feedback on how areas and measures may influence fishing operations;
 - Ideas on how to evaluate feasibility, economic effects and redistribution of effort
- Identify potential implementation issues

Thirty-nine applications were received by the deadline; all were from individuals except for one application submitted on behalf of a small group of industry members. All applicants except for one industry legal representative were granted interviews. A letter was sent to each invited participant that included their interview time and reiterated the purpose of the meetings. A sample letter is attached to the end of this report. The following discussion questions were provided as part of an information packet to invited participants. The information packet also included a description of the alternatives and a series of maps depicting habitat and fisheries data.

- Can you recommend specific areas where reduction of fishing activity will have beneficial effects on general or juvenile groundfish habitat or groundfish spawning? When do spawning aggregations occur?
- How would you respond to new closures and new areas becoming open to fishing in your area? How would you fish differently than you currently fish?
- Proposed gear modifications for bottom trawls include no ground cables, limits on bridle length, and/or cookies on bridles to lift them from the bottom? Would these modifications change the way you fish? How?
- Can you recommend specific and relevant data or literature that the Council has not yet considered?
- Does recreational fishing target spawning groundfish in areas closed to commercial fishing?
- What data would you recommend that NMFS collect to monitor performance of habitat or spawning areas?

Two additional requests for interviews were made after the confirmations were mailed out but before the interviews began. These requests were accommodated, although one of these groups was ultimately unable to attend. One person who had not preregistered arrived with a group and participated in the discussion. Ten individuals who were offered interviews cancelled and there were six no-shows. In total, 28 individuals participated in person (**Table 1**). After the interviews concluded, staff spoke with two additional fishermen via telephone.

Table 1: Number of in-person participants

Number	Type
39	Original applicants (one applicant registered on behalf of a small group)

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Number	Type
-1	Not granted interview
2	Requests after application deadline had passed
-1	One of the requests after deadline cancelled
1	Arrived with a group but had not preregistered
5	Arrived as part of a group but had not preregistered individually
-10	Cancellations
-7	No shows
28	Total

Excluding Council staff, groups, combined by similar fisheries and areas, ranged in size from a single individual to eight people. Each interview lasted between 45 minutes and 1 ½ hours. Staff provided a brief introduction to the process, and then asked for questions about the alternatives or the amendment in general. Interviewees then offered their observations and comments, with staff asking questions about the information they presented. Background materials, electronic maps, and paper charts were referenced as needed. The discussions were very informal.

2) Summary of interviews and technical team feedback

This section summarizes the comments and information provided during the interviews, including an evaluation of the information conducted by the Closed Area Technical Team and Habitat Plan Development Team. Within each category, information provided during the interviews is shown in the left column, and the technical evaluation and advice is provided in the right column. It is organized by the four major industry groups that participated: commercial groundfish, recreational groundfish, commercial scallop, and commercial offshore lobster (Table 2).

Table 2: Types of participants

Number	Primary area of expertise
7	Current or retired commercial groundfishermen (6) or related to commercial groundfish industry (1)
10	Groundfish charter boat operators
6	Commercial lobstermen (4), or related to commercial lobster industry (2)
7	Commercial scalloper (6) or related to scallop industry (1)
28	Total number of individuals that participated. Two participants overlapped between commercial and recreational groundfishing, and are listed in both categories.

Despite caveats that the purpose of the interviews was to gather information, some participants did not limit themselves to the discussion questions and instead chose to comment on existing alternatives. **Thus, some of the comments below skew towards being opinions about the merits of the alternatives, rather than answers to the discussion questions.** This was probably unavoidable to some extent, as information was being given as a response to the range of alternatives selected by the Council. Although staff generally let interviewees guide the direction of the discussion, they attempted to steer the conversation towards information and data, reminding participants that upcoming Committee and Council meetings and public hearings are the most appropriate forum for comments directly for and against the alternatives. While perhaps obvious, **it is also important to remember in reviewing this report that these comments do not represent all stakeholder groups involved in the Omnibus Amendment process**, because individuals not previously involved were the target audience of the solicitation, and previously active participants were discouraged from participating. **This report does not make any attempt to capture comments about the areas and alternatives other than those comments provided on August 6, 8, and 12, 2013.**

Recommended Committee action items in the tables below are highlighted in yellow.

Observations that support considered but rejected alternatives, or indicate that the timing of proposed spawning alternatives may be missing some spawning activity, are highlighted in blue.

(a) Commercial groundfish

Interviewees: Arnold Nickerson: currently fishes a smaller groundfish trawl vessel; also participates in shrimp fishery. Discussion focused on western and central Gulf of Maine areas. Geoff Smith: his organization, the Nature Conservancy, owns quota in the Port Clyde sector and he interacts regularly with sector members. Salvatore and James Bramante: retired commercial groundfish trawl vessel owner/operators who fished throughout the region, mainly out of Boston, from the 1950s – 2000s. Steven Welch: fishes in western Gulf of Maine. Richard Flannery: commercial longliner; also a charter boat operator. Ralph Pratt: fish spotter and commercial groundfishermen; also a charter boat operator.

Table 3: Summary of information provided by commercial groundfish industry members

#	Information provided	Technical advice
1	Catches witch flounder (grey sole) and American plaice (dabs) in the eastern sliver of the WGOM area outside the habitat closure	CATT will attempt to evaluate this statement in EIS.
2	Suggested modification of the Jeffreys Ledge habitat management area to be the same as the one proposed in Option 5 of Framework Adjustment 36 (page 22). This modification would provide important protection from dragging on the NE peak extension on Jeffries Ledge (48 fathom hump where small pollock occur, aka “Normy’s Point” at the top of Wilkinson Basin), but allow dragging in adjacent deep waters for pollock and hake. This falls within the northern part of the ‘sliver’ area of the Western Gulf of Maine closed area, or in the SW quarter of ten-minute square 436951 (WGOM TMS shown on Figures Map 1).	<p>PDT and CATT recommend modifying the Jeffreys Ledge HMA boundaries based on this comment (Map 2).</p> <p>Adjustment based on fisherman’s information is a reasonable approach because data are somewhat sparse in this area:</p> <ul style="list-style-type: none"> • Substrate data are low resolution • Groundfish data are limited <p>The teams discussed evaluating additional substrate data from Knight 2005 thesis, but upon review these are all grab samples so they only indicate fine sediments and smaller gravels, not the distribution of cobble, boulder, or bedrock substrates.</p>
3	Removing the northwest portion of the WGOM habitat area as proposed would allow shrimping in the area, assuming the fishery extended into May when the shrimp move further offshore. However, the shrimp fishery has not been open this late in recent years.	The Jeffreys Ledge HMA has already been modified to reflect this observation; CATT/PDT will note in EIS analysis. The CATT confirmed the statement that additional shrimp fishery benefits are unlikely to be realized in the near term because of the condition of the shrimp resource and the recent short shrimp seasons. However, this does not mean that the boundary adjustment is unwarranted, since the

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#	Information provided	Technical advice
		<p>main objective in defining the Jeffreys Ledge HMA from the WGOM habitat closed area was to focus on hard bottom habitats, and the NW corner of the WGOM area generally contains soft sediments.</p>
4	<p>Dragging in the Bigelow Bight area occurs on less sensitive habitat, due to large amounts of untowable bottom.</p>	<p>Technical teams note that closure in an area that includes some un-towable or less-towable bottom still serves a habitat protection purpose by minimizing impacts to adjacent towable bottom habitats within the closed area.</p> <p>Further, empirical data from the region and global literature prove that types of hard bottom that are the focus of conservation efforts are towable. While very large boulders preclude use of mobile bottom-tending gears, these are not the only habitat types targeted by habitat measures. Vessels towing 12 inch roller gear can access habitat used by juvenile groundfish.</p> <p>That being said, teams will attempt to verify this observation by comparing straight line tow paths inferred from observer data tow start/end positions with either substrate data or SASI vulnerability scores. The imprecision in both fishing location data and habitat mapping data limits our ability to be conclusive with this type of analysis. The potential for observer bias to influencing the results of this analysis was discussed. For example, do vessels avoid sensitive habitats when carrying an observer?</p> <p>The Bigelow Bight area is justified based on juvenile groundfish distributions, specifically based on the occurrence of juvenile groundfish hotspots.</p> <p>Even if there is a lack of fishing in sensitive habitats under current conditions, this does not mean that fishing could not expand into sensitive habitats in the future.</p>

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#	Information provided	Technical advice
		<p>This observation does not lead the teams to recommend a change in area boundaries, but this observation will be considered as the teams complete the analysis in the EIS comparing the management options for this area (i.e. a mobile bottom tending gear closure vs. a trawl gear modification measure).</p> <p>The literature review and vulnerability assessment completed by the Habitat PDT doesn't support the fact that hard bottom is inherently untowable.</p>
5	There would be a substantial impact to the shrimp fishery (maybe 80%, referencing larger version of area) if the Bigelow Bight area were closed to [mobile bottom-tending gears to] protect habitat. Cited importance of Wood Island area for shrimping.	PDT/CATT will attempt to evaluate this statement in EIS.
6	Should consider the relative, cumulative impact of fixed gears vs. mobile gears in the Bigelow Bight area.	PDT/CATT will attempt to evaluate this statement in EIS.
7	Sensitive habitat occurs around Fippennies Ledge to 60-70 fathoms. Pollock found on the western side.	This observation supports a PDT/CATT recommendation. The original PDT proposal for a HMA on Fippennies Ledge identified a rectangular area based on the 100 m contour (which is the equivalent of about 55 fathoms). The Habitat Committee rejected this option in favor of a more narrowly defined, smaller area.
8	Platts Bank/New Ledge is important habitat for groundfish.	CATT will attempt to evaluate this statement in EIS. This statement bolsters rationale for a HMA on Platts Bank.
9	12" roller gear is more restrictive for small vessels with less horsepower than it is for larger vessels which can pull the same net through more rugged bottom	PDT can attempt to evaluate these industry observations in the EIS. However, teams noted that different restrictions for large and small vessels goes beyond anything currently contemplated in terms of management measures in this amendment.
10	Requirements for shorter ground cables (e.g. 15 fathoms) would not affect smaller vessels but would affect larger	PDT will attempt to evaluate these industry observations in the EIS. The teams noted that this observation is not inconsistent with the

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#	Information provided	Technical advice
	ones	objectives of ground cable measure, which would be to reduce the overall footprint of fishing.
11	The Council should adopt the Cashes Ledge groundfish area (larger area including both Cashes and Fippennies) as a spring spawning closure.	The teams discussed that this area was identified by the spawning hotspot analysis. However, the area is not particularly well sampled by the various surveys in terms of numbers of tows, and the sampling may be occurring at the wrong time to capture actual spawning aggregations vs. aggregations of large fish. Because this comment is consistent with prior CATT analyses, the teams recommend that the Committees consider adding the Cashes groundfish area to the GOM spawning alternative (Map 3). The teams noted that this is analogous to keeping CAI and CAII closed during the spring. The timing of spawning on Cashes Ledge will be difficult to identify based on lack of specific literature, sea sampling data (closed area), or survey data (lack of tows on Cashes Ledge). The decision may have to rely on research observations from cod tagging and other research on Cashes Ledge.
12	Some fishermen feel that Western Gulf of Maine area should be closed to more than just mobile bottom tending gears, including gillnets, and possibly also mid-water herring trawlers, recreational fishermen, and lobster trapping.	The CATT will attempt to evaluate this effect in EIS. Prior to WGOM closure, there was substantial gillnet effort in this area (see sea sampling data, Map 4, Map 5); if WGOM groundfish closure is lifted, then would expect to see increased use of gillnets and other stationary fishing gears in area. While the PDT agrees that increased gillnet use probably does not represent a major issue in terms of benthic habitat, the teams agreed that changing the regulations in the WGOM region so that there is no longer a more comprehensive groundfish closure may well change fish demographics in area.
13	Should consider how Council proposals fit in with spring groundfish closure in Maine state waters ¹ . Applies to all	CATT will attempt to evaluate this statement in EIS.

¹ Maine Groundfish Spawning Closure: Except as provided in this section and for recreational fishermen fishing under the provisions of Chapter 34.10(1)(B)(2), it shall be unlawful during the months of April, May, and June to

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#	Information provided	Technical advice
	NEFMC large mesh groundfish plus silver hake.	
14	Northern part of Closed Area I important haddock spawning area in April and May	Can't verify this one way or another with existing survey data/hotspot analysis collected in February and March, but the statement might very well be valid. This information is, however, inconsistent with the timing of a February, March, and April spawning closure here, as proposed in GB spawning alternative 2.
15	Middle Bank and Nantucket Shoals hold a lot of scrod (small) cod. They feed on sand eels. Small cod in abundance during Sep-Nov in 10-30 fathoms. Very mobile sand bottom on Nantucket Shoals in between the shoals.	Consistent with other stakeholder comments – but area is not well sampled by either surveys or sea sampling so this observation cannot be verified. Biological elements of sand habitats are important and may have demographic implications (e.g. improved feeding increasing survivorship); but these habitat types expected to have relatively fast recovery. This statement generally supports the usefulness of area as juvenile habitat and the utility of a habitat management area in the area.
16	Historically used no ground gear trawls or ground gear without cookies and rollers. Rollers originally made with wood cut from tree trunks, later reinforced with metal and then rubber rings. Vessels with more horsepower began using heavier, more reinforced ground gear making the nets more durable. Noted ban of streetsweeper gear and increases in mesh size over time. Noted that longer ground cables require the use of cookies on the cables, but that shorter cable can be more easily used as bare wire.	PDT will attempt to incorporate these industry observations in the EIS when gear modification alternatives are discussed.
17	Northern Edge from Canada to Little Georges (40-50 fathoms) is important	This statement generally supports the designation of a habitat management area in

fish for, take, or have in possession groundfish as described in Chapter 34.10(1)(C)(8)(a) taken from Maine's territorial seas, (3-mi.) as follows; All waters west of a line drawn 180° magnetic from West Quoddy Head, in Lubec, to the Canadian international border. This section does not apply to the recreational taking of groundfish from the shore, wharves or attached floats. Commercial ground fishing vessels must have all fishing gear securely stowed and covered when transiting this area during the closed period. The stowage requirements will not apply to vessels secured to or moving between docks or moorings within a harbor.

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#	Information provided	Technical advice
	for small cod and haddock during mid to late spring	the region. Areas shallower than 40 fathoms also seem to be important habitats, based on survey data.
18	<p>Cod spawning in Mass Bay below Boston Harbor occurs Oct to early December. Cod spawning in Boston Harbor is protected by MA winter closure area, but in some years (particularly in 2012) the codfish stay offshore to the west of Stellwagen Bank to spawn.</p> <p>Important cod spawning area occurs NE of Plymouth, off Scituate, in Federal waters</p> <p>Closing blocks 124 and 125 in the western GOM during October to mid-December would improve protection of spawning codfish. More precisely, the area indicated would fall within the following ten-minute squares: all of 427053, the southern half of 427054, the southwest quarter of 427043, and all of 427052 in Federal waters. These areas include the spawning concentration that MADMF is investigating for cod spawning.</p>	<p>The technical teams recommend that the Committee consider including blocks 124-125 as a spawning area during October to mid-December (Map 6).</p> <p>Note that MADMF is working with Sector 10 to monitor the area using acoustic tags. Data collection and analysis may become available in late 2014, depending on funding, permitting, and other factors.</p>

(b) Recreational groundfish

Interviewees: Charter vessel operators Barry Gibson, William Tower, Ralph Pratt, Thomas DePersia, Rodger Ballou, Kevin Scola, David Waldrip, Jeffrey DePersia, Frank Kristy, Richard Flannery. Ralph Pratt is also a commercial groundfishermen and fish spotter. Richard Flannery is also a commercial groundfishermen (longline).

Table 4: Summary of information provided by recreational groundfishermen

#	Information provided	Technical advice
19	Noted the loss of the Sheepscot Bay cod sub-stock in the 1970s. After extirpation, implemented the following regulation - during May 1 - June 30 fishing for or possessing groundfish with any type of gear is prohibited in this area. Also noted the Maine state waters groundfish closure (see commercial groundfish section).	Issue for future research – in general, should identify sub-populations of cod so that they can be given adequate protection. Council spawning protection objectives in this amendment include “protection of localized spawning contingents or sub-populations of stocks” In this case, an early 1980s tagging study of Sheepscot Bay cod by Maine DMR documented that fish tagged in the area continually return in large numbers (Perkins et al 1997). Fish were in spawning condition at the time of tagging. Although there were distant recaptures as well, the tagging provides evidence for a spawning sub-stock.
20	Platts Bank is very important habitat for small cod, haddock, pollock, and cusk; species occur in individual aggregations over habitats. Lots of boulder habitat that appears fairly homogeneous. Some cod are resident (brown in appearance). Historically a gillnet area. Migrant cod pass through Platts in March at the 50 fathom hump, but are not spawning.	Don’t have much survey data on this area due to poor sampling here; but this observation provides rationale for protecting the area.
21	Noted large amount of ghost gillnet gear that may still be found on Jeffreys Ledge (this area was heavily fished by this gear type prior to WGOM closure). Large amounts of discarded gear related to abuse of gear compensation fund, which provided funds to purchase gillnets if gillnet gears were damaged by mobile gear operation.	See discussion in commercial groundfish section and Map 4, Map 5. Ghost gear study: Cooper et al 1988. CATT and PDT will need to estimate likely shifts in fishing effort in EIS.
22	Southeast end of Cashes Ledge, Parker Ridge, is heavily fished for pollock in March; Cashes in generally better pollock habitat	Using sea sampling data, CATT will attempt to evaluate this statement in EIS.

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#	Information provided	Technical advice
	than Fippennies	
23	Recently, relatively large numbers of halibut on Fippennies; lots of juvenile haddock in stomach contents.	Would be hard to verify, but supports habitat management area on Fippennies Ledge , which could have the added benefit of protecting a recovering stock.
24	Can't find cod on Jeffreys Ledge now, but catching more cusk. Cusk appear to be increasing in numbers now that float ropes are no longer allowed.	Comment is not directly relevant to this amendment but should be considered in broader ecosystem context.
25	Wolffish spawning on north end of Jeffreys Ledge in March, falling within ten-minute squares 437056 and 437066 in Block 139.	The alternative system of rolling closures proposed in this amendment would miss this spawning event if it is occurring , as this area would be closed during May only. However, noted that we have very little info on timing of wolffish spawning and what information is available suggests that the species spawns during late summer and fall. Wolffish were included in the CATT hotspot analyses, but none were identified due to infrequent survey catches of wolffish. Sea sampling data may be more useful for this purpose in open fishing areas, but no biological data are collected on observed trips. Looked into catch of wolffish in gillnets, which could be allowed in Jeffreys Ledge HMA if area remains closed to MBTG.
26	White hake appear to spawn in Wilkinson Basin and then move up and over Jeffreys Ledge	CATT will attempt to evaluate this statement in EIS. White hake were included in the CATT hotspot analysis and identified white hake juvenile and spawner hotspots that were consistent with this information. White hake were given low priority and emphasis in the aggregate analysis because of stock condition and low affinity for vulnerable substrates.
27	Lots of white hake and pollock spawning on east side of the Western Gulf of Maine area – June spawning. It is important for this area to remain closed.	See above. CATT will attempt to evaluate this statement in EIS.

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#	Information provided	Technical advice
28	Toothaker Ridge appears to hold groundfish, pollock and hake. Similar characteristics to Cashes Ledge, but not as shallow	Supports designation of habitat management area; consistent with CATT hotspot analysis.
29	Sensitive habitat areas along coastal NH and ME inside 50 fathoms, but generally is not fished with mobile gear – difficult bottom with lots of traps. Drag ground in the Bigelow Bight area around Ogunquit/Bald Head in the 1980s	See discussion above about evaluating habitat type fished by trawls.
30	Upwelling events are important to fish and fishing distributions on Stellwagen Bank	Ecosystem context comment; some upwelling events occur routinely in discrete areas such that a management area could encompass this phenomenon and associated fish production. This observation supports future research; all habitat management designations not created equal and important to understand why some areas are more productive.
31	<p>Most spawning cod in Massachusetts Bay are observed late October to early December. Spawning cod have dispersed by mid-December.</p> <p>An area east of Nahant and west of the Saturday Night Ledge area is an important cod spawning area.</p> <p>In spring, cod spawning occurs in in March and April; few or no cod spawning in June so the proposed June rolling closure would be mis-specified for cod. No cod spawning has been observed after the April 15 open fishing season date in Mass Bay.</p>	<p>See recommendation above regarding blocks 124 and 125 in fall (Map 6). The current October rolling closure for common pool vessels would provide partial protection, but it does not apply to sector vessels and does not cover the entire time of reported spawning here. This area is not included in the alternative group of spawning areas.</p> <p>The Nahant area is at least partially included in the state of Massachusetts winter spawning closure.</p> <p>If March cod spawning is occurring, it is not being captured in the system of rolling closures (current or proposed alternative). However, MADMF data indicate that spring spawning in this area occurs during late May to early July. The Massachusetts spring spawning closure extends from April 15-July 31 to cover this window. This indicates that the rolling closures are missing the end of this spawning event, not the beginning.</p>

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#	Information provided	Technical advice
32	The east side of Jeffreys Ledge described as a 'runway' for cod to the spawning grounds in Ipswich Bay. In general there has been a lack of spawning codfish anywhere in 2013. Cod migrate over Jeffreys Ledge in March (attracted to herring on the clay bottoms) and move into the Bigelow Bight area for March and April spawning; codfish still inhabit areas like Whaleback after June but are not actively spawning that late.	To the extent that this behavior happens in April and May, it would be covered by the rolling closure spawning alternative. However, March spawning events would not be protected.
33	Lots of juvenile codfish inshore east of the BE bouy, in 200 feet of water. Recently, are seeing few cod below 19 inch size limit.	This area was identified in the hotspot analysis and would have been protected by the CATT recommendations, but it is not a part of any of the current alternatives.
34	Haddock spawning occurs on Jeffreys Ledge, Fippennies Ledge, Platts Bank. Occurs April, May; later during colder years.	The rolling closures will not protect this spatiotemporal pattern of haddock spawning. The rolling closures exclude Fippennies Ledge and Platts Bank entirely.
35	Fishermen are catching increasing numbers of redfish.	Will note in EIS.
36	Positional data from charter/party boats is imprecise; usually the location of the first fishing activity and the trip usually fishes different areas, sometimes distant from the first location. As far as monitoring, improving the positional data of where catch occurs would be important, although there were no specific suggestions for improvement.	How do we use these data if they are imprecise? Bigger picture issue. Can better delineate areas and impacts with better data. This observation highlights a challenge with the impacts analysis in general.
37	There has been a big reduction in recreational fishing due to the lack of codfish. Feel that under catch share/sector system without trip limits there has been a redistribution of fishing effort with more groundfish being caught now closer to shore west of the WGOM closed area. There used to be much better charter fishing in this area. Commercial fishing inshore of Stellwagen Bank was intensified by the catch share system, allowing vessels to accumulate quota from vessels that customarily fish other areas in the Gulf of	Not immediately applicable to changing alternatives. This trend seems to be borne out by the data. This observation may indicate that the inshore western Gulf of Maine is in need of additional protection.

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#	Information provided	Technical advice
	<p>Maine to fish inshore. Draggers in this area have changed the bottom and mussel beds, even flattening or burying wrecks. Catch shares and catch limits are causing discarding (most of it unobserved).</p>	
38	<p>Gillnet and longline fishing in the EFH areas of the Western Gulf of Maine would be expected to be intense and cause gear conflicts with the recreational fishery</p>	<p>CATT will attempt to evaluate this statement in EIS. Can look at sea sampling data to see how these types of fishing before 1998 overlap with current recreational activity and management areas.</p>
39	<p>The SERA II reference area will have a very severe impact on the recreational fishery, charter and head boat operators out of Scituate, Green Harbor, Plymouth, and the Cape. Inshore cod are now unavailable due to intensive commercial trawling effort inside of Stellwagen Bank (see above). The recreational fishery has therefore been forced to fish further offshore in the Western Gulf of Maine area for a mix of species including pollock, redfish, and hake. The SERA II reference area would cause the fleet to fish even further offshore, which for many boats is outside their range.</p> <p>Moving the SERA II reference area to the north, either overlapping the center part of Stellwagen Bank or Tillies would be more equitable, allowing vessels from all ports to fish other areas nearer to their ports.</p>	<p>Reference area needed to investigate the effect of groundfish removals on ecosystem metrics (e.g., food webs, indirect effects on habitat-forming invertebrates, recruitment). We don't know enough about these types of issues to understand trade-offs in gear impacts versus fishing mortality controls on management of EFH in the NE region. Such questions cannot be answered without a reference area that prohibits all groundfish catch. Note there are two long term monitoring sites in the current reference area option.</p> <p>Teams discussed alternative reference area options.</p> <ul style="list-style-type: none"> • Such a reference site needs an exclusion of recreational effort for there to be detectable effects of eliminating it. Thus, putting the reference area in a location that is not recreationally fished is not useful. Could move the area to the north (see Map 7) – but too far north the contrast is lost because there is less recreational fishing in the central part of the WGOM. • Reference area size (55 km²) is based on the localized movement patterns of cod and other groundfish. We know that some fish will cross the boundaries

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		<p>of the area. Effects of a smaller area less likely to be detected due to fish movement.</p> <ul style="list-style-type: none"> • Want reference area to go west to east in order to capture shallow gravel habitats in the western portion. North south area less useful.
40	The recreational fishery is already constrained by the winter closure from November to April 15, when cod spawning occurs, so there is no need to include additional closures, particularly application of the rolling closures to the recreational fishery	PDT/CATT will attempt to evaluate this statement in EIS. Should look at cumulative effects of measures on particular fisheries. May not be a need to exclude the recreational fishery from spawning closures since if this prohibition remains in place to keep the fishery from exceeding the cod sub-ACL.
41	Lowering the size limit and mesh size is wrong and counterproductive. Limits on DAS and minimum mesh size coupled with restrictions to prohibit discarding would restore balance and work better.	Not directly relevant to this amendment – general comments on groundfish management.
42	More direct habitat damage occurs from storms than from fishing.	PDT will attempt to evaluate this statement in EIS. Habitat areas generally focus on habitats that have longer recovery times following disturbance; high energy predominantly sand habitats are not the focus of conservation efforts. Statement will be difficult to evaluate system-wide, and will depend on defining damage and productivity. Results may be different depending on species.

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#	Information provided	Technical advice
43	No justification for the proposed closures; minimal adverse effects caused by fishing compared to other factors like predation and oceanic effects. Additional closures are unnecessary to reduce impacts on groundfish habitat and spawning.	Ecosystem context comment; indirectly relevant. Will look at cumulative effects in amendment to extent possible.
44	Fishing effects is not the issue that the Council should address. Groundfish productivity being negatively affected by predation and competition for food – cormorants, seals, and dogfish. These species compete for sand eels which are a prime food source for small cod. Cormorants consume juvenile flounders as well. Large oceanic changes have occurred; loss of ecosystem balance. Concerned about cumulative effects of non-fishing activities such as coastal development, offshore energy, gravel mining.	Ecosystem context comment; indirectly relevant. Will look at cumulative effects in amendment to extent possible, including non-fishing impacts.

(c) Commercial scallop

Interviewees: Peter Hughes, Eric Hansen, Charles Quinn, Tony Alvernaz, Edward Welch, Joseph Gilbert, Ronald Smolowitz

Table 5: Summary of information provided by commercial scallop industry members

#	Information provided	Technical advice
45	Closed areas have been in existence since 1994, but have not worked, i.e. they have not produced the expected benefits. In fact stocks are still in decline despite the closed areas. Council should try something different – think outside the box. More supportive of seasonal closures – argued they would do more for GF recovery so vessels not as concentrated. Argued that current closures have pushed GF fleet into harder bottom areas where spawning fish are.	This statement supports the proposed alternatives which modify the existing closures to improve their performance.
46	Rotational management has been very successful, but it is too limited by the Closed Area II habitat closure (Cod HAPC). Will take years to get Northern Edge scallop resource back to full productivity when it is reopened. Fishing strategy is to make short tows. Need to consider negative effects of effort displacement.	This issue should be addressed in a scallop action that contemplates an access program.
47	Need to assess and measure benefits of undisturbed habitat – may not be as beneficial as people think compared to controlled levels of disturbance. In terms of EFH protection is old growth much better than new growth? Maybe fish prefer newly colonized areas in terms of food availability etc. Cited SMAST study comparing natural and fishing disturbance (Stokesbury and Harris 2006).	PDT/CATT will attempt to evaluate these statements in EIS, but may be very difficult.
48	Noted 1 km grid SMAST video survey of CAI and CAII in June 2013. High biological diversity in access area portion of CAI. Better bottom habitat in the northern part (deep water) of Closed Area I than on the northern edge.	PDT/CATT will attempt to evaluate this statement in EIS and can look into obtaining 2013 data from SMAST.
49	Scallop dredging increases productivity of the benthic ecosystem, promoting growth of	PDT will attempt to evaluate this statement in EIS. This conclusion is at

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#	Information provided	Technical advice
	scallops and other species (referenced Everett and Anderson literature review, which the PDT has previously reviewed). Fishing also removes invasive species. The northern edge should be cultivated by fishing.	odds with other peer-reviewed literature that demonstrates reduced productivity (e.g. Hermsen and Collie papers on northeastern Georges Bank) or no detectable effect one way or the other (some European studies). Increase in productivity could depend on the species of interest.
50	Need to consider influence of natural disturbance of the seabed in relation to fishing – example of 1991 Hurricane Bob, which passed directly over Georges Bank.	PDT will attempt to evaluate this statement in EIS.
51	Benthic community varies seasonally and recovers faster than people think.	PDT will attempt to evaluate this statement in EIS; unfortunately data that would allow us to compare benthic community across seasons are very limited.
52	Noted that there are relatively few yellowtail flounder on Northern Edge; not catching yellowtails in survey	Except during spawning, yellowtail flounder bycatch is not the issue being addressed by this amendment. Yellowtail flounder were included in the CATT hotspot analysis and a rejected spawning area was proposed by the CATT based on these data. Yellowtail flounder spawning is not protected by the proposed Closed Area II spawning closure because it occurs later in the season, and CAII would be closed Feb 1-Apr 30 under spawning alternative 2.
53	Juvenile cod are prevalent in 15-30 fathoms on Nantucket Shoals, and in particular around Davis Bank. Many YOY cod near Martha’s Vineyard, but not sure where spawning fish are that produce these juveniles. Information of historical mussel fishery in this area might be of interest?	There is very limited data on fish catches for this area, so statements about the area cannot be verified using survey data. PDT will attempt to incorporate these industry observations in the EIS.
54	Concerns expressed about effects of fishing on benthic eggs of winter flounder, but the areas where these eggs occur have not been identified.	Data on winter flounder egg distribution or the effect on them by fishing are unavailable, but this issue should be discussed in the DEIS, along with effects of other benthic eggs or egg cases produced by herring and skates.

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#	Information provided	Technical advice
55	Some discussion of identifying non-overlapping areas of juvenile cod/haddock distribution, lobster fishing, and the scallop resource occurred, but there was no consensus. Most scallop fishermen thought that there should be no closed EFH area on the northern edge, but were willing to negotiate something if the only alternative were No Action. Commented that haddock are north of the 900 line in deeper waters. Some commented that waters deeper than 70 fathoms would protect deeper waters for some fish species, and not overlap too much scallop ground. One commented that leaving access shallow of 30 fathoms would even be better than No Action. Some discussion that different periods of access could be developed to reduce gear impacts for GF, scallop, and lobster fisheries, but no specific dates were provided.	It seems that there is a possible solution that protects fish habitat and lobster fishing while allowing scallop fishery access to the region, but this is a difficult tradeoff to assess. One tradeoff is the long term potential recruitment success of cod vs. near term and long term scallop yield. Gravel habitat is a bottleneck for cod, and due to fairly lengthy recover times for the cobble habitats in the northern edge region, habitat management areas should receive year round protection. Gravel is also a bottleneck for early benthic-phase lobster (Wahle and Steneck 1991, Phillips 2006).
56	VIMS grid survey and HabCam data could be used to examine species distributions in more detail with respect to depth and bottom type.	These data could be useful for identifying a Northern Edge area that protects habitat and allows for scallop fishing access.
57	During the meeting, examination of NMFS scallop survey data and juvenile cod distribution in the spring survey showed considerable overlap. More investigation using the VIMS grid survey and HabCam data would have more detailed information about the distribution of scallop biomass.	These data could be useful for identifying a Northern Edge area that protects habitat and allows for scallop fishing access.
58	Do not believe that many of the GF species are in as bad condition as the assessment suggests – Federal survey is not adequate	Comment is indirectly relevant to the habitat amendment since healthier stocks could need less protection (see CATT hotspot evaluation framework)
59	The area of hard bottom (assume this refers to boulders) in the HAPC is pretty small – maybe 1.5 miles long near the 30 fathom line	The PDT agrees that boulder habitats on the northern edge are relatively limited, but notes that the alternatives in OA2 are designed to encompass a broader range of habitat types , including especially cobble-dominated habitats, which are more widely distributed in this region.

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#	Information provided	Technical advice
60	No major criticisms of the overall substrate map the Habitat PDT has developed for northeastern Georges Bank – seems to be showing where the harder bottom areas are for the most part	Will use any habitat data available to evaluate impacts in EIS , with SASI grid as foundational data set.
61	Should look at scallop distribution when considering opening/closing GOM areas. Years ago those areas were more important for scallops.	Potential effects on scallop fishing will be considered in DEIS , but very little data on historic Gulf of Maine scallop distribution is available. No scallop surveys conducted in Gulf of Maine until recently and this is located along the ME coastline. One or two years of scallop video survey in offshore bank/ledge areas. GOM trawl surveys do catch scallops to some extent.
62	Productivity of the groundfish stocks would be enhanced by reducing the abundance of predators (i.e. seals and cormorants) and competitors (i.e. skates).	Ecosystem context comment ; indirectly relevant. Will look at cumulative effects in amendment to extent possible.

(d) Commercial offshore lobster

Interviewees: Jon Shafmaster, Scott Ellis, Bill Palombo, Bro Cote – commercial offshore lobstermen who fish or own vessels that fish on eastern Georges Bank, primarily within Closed Area II. Bonnie Hyler and Heidi Henninger from Atlantic Offshore Lobstermen’s Association coordinated their involvement and provided information about AOLA data.

Table 3: Summary of information provided by commercial lobster industry members

#	Information provided	Technical advice
63	Closed Area II serves as an important brood stock area for lobsters during July to October. During this time, much of the catch is female, and majority of females are egg bearing. There are high cull rates (~80%) for egg-bearing lobsters during Aug-Oct. AOLA has additional data – available through ACCSP – being used in 2014 stock assessment. ASMFC and NEFSC are reviewing it. Data from AOLA has more information on catches of gravid females.	PDT/CATT will evaluate impacts on the lobster fishery and resource in the EIS and will look at the AOLA data. Technical team observation was that this issue seems to be about gear conflicts as well as about lobster mortality. Based on a casual look at the distribution of lobster effort in the observer data (which are a relatively small fraction of total effort), it seems that there is not a huge overlap with scallop distributions, but this issue will be investigated further. See Map 8. Distributions of egg bearing lobsters can be examined in the NMFS bottom trawl survey data.
64	Opening CAII would cause gear conflict and could affect the lobster resource. Closed Area II contains 30,000 to 50,000 traps worth ~\$6.8 million during July to October, although there is some activity year round most of the effort occurs in this window. Sharing agreement hard to negotiate with scallop fishery – dredges would be very damaging to gear. Referenced previous negotiations about southern part of CAII south of 41° 30’.	
65	Some vessels (about 20%) do not report on VTRs as they do not have a groundfish permit. Some vessels record lobster discards on their VTRs, while many do not. It was noted that industry has requested increased reporting in the past, including a lobster-specific form/data fields.	
66	Distribution of sea sampled lobster trawls was not representative of lobster fishing effort – additional areas are fished. Low sample size. Recent increase in observer coverage in Statistical Area 515 part of a special program – shouldn’t be interpreted as a shift in lobster effort into that area.	

3) General themes across industry comments

A number of comments were reiterated by various interview participants:

- Many comments on fish distributions in time and space, including spawning activity and to a lesser extent, juvenile distributions
- Potential for gear conflict if changes are made to management areas and restrictions. Some comments related to this in favor of continued spatial management
- Some comments in favor of closed areas applying to more types or all types of fishing to afford greater protection
- Other comments opposed to area management, in part because it can generate unintended consequences
- Common theme was considering the relative influence of fishing impacts vs. of other factors on fish production (e.g. predation, climate shifts). Also, should look at the relative impacts of different types of fishing.
- Concerns presented about the representativeness of available fishing position data

4) Summary of technical recommendations for action

Upon review of the information provided, the technical teams recommend that the Committees consider the following modifications of the alternatives:

1. Modify boundaries of Jeffreys Ledge Habitat Management Area (comment #2, Map 2)
2. Include Cashes Ledge groundfish closure in the Gulf of Maine spawning alternative (comment #11, Map 3)
3. Include a rolling closure of blocks 124 and 125 (or subset of ten-minute squares) in the fall as part of the Gulf of Maine spawning alternative (comments #11, 31,

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4. Map 6)
5. For the Stellwagen region dedicated habitat research area (Sanctuary Ecological Research Area), consider adding an option for an alternate reference area (comment #39,
6. Map 7)

In addition, the technical teams note the following observations that support considered and rejected alternatives, or indicate apparent mismatches between spawning alternative 2 and observed timing and locations of spawning behavior:

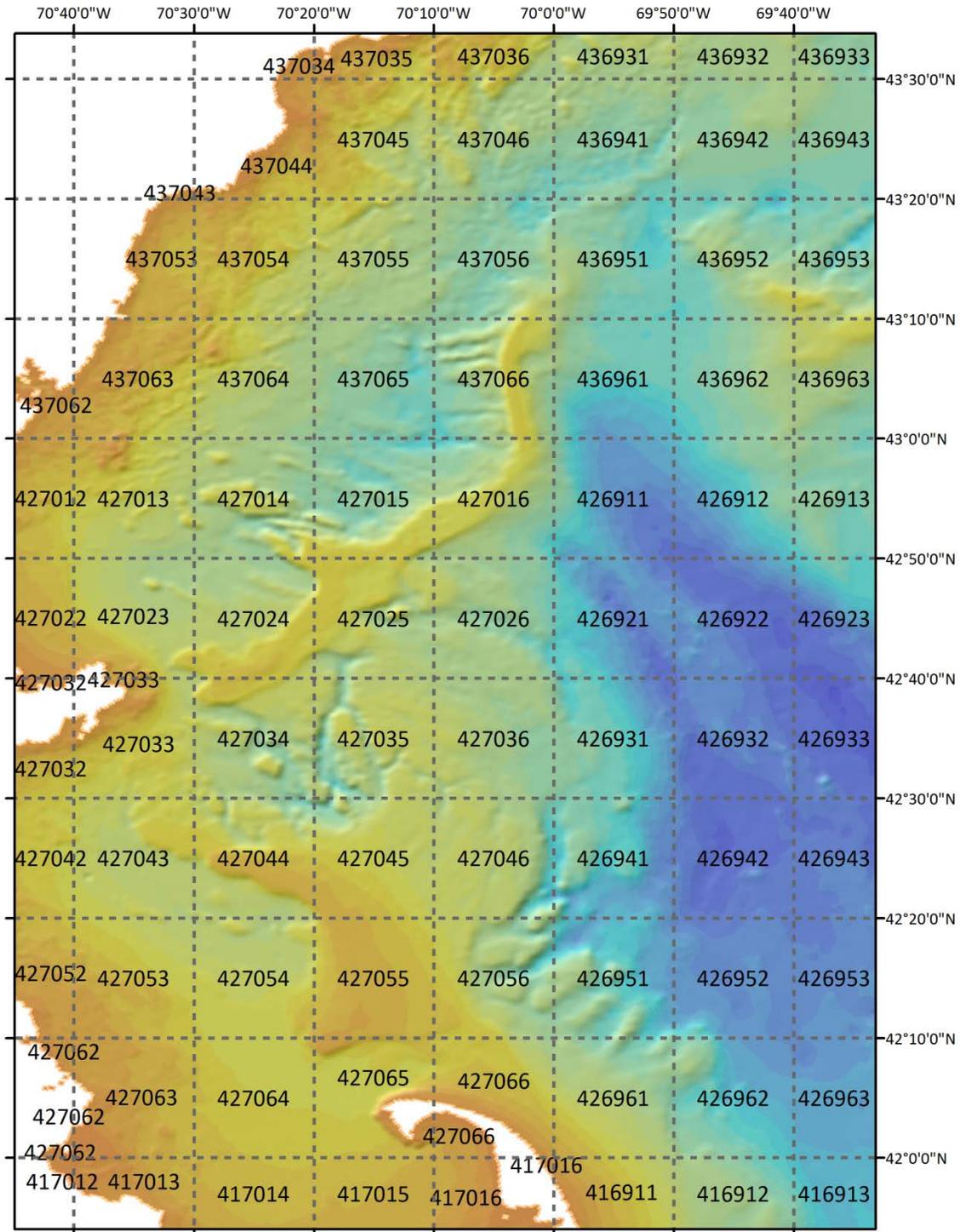
1. Some vulnerable habitat areas on Fippennies Ledge not included in current HMA boundaries, considered and rejected PDT alternative (comment #7)
2. May spawning in northern Closed Area I missed by GB spawning alternative 2 (comment #14)
3. March wolffish spawning on northern Jeffreys Ledge missed by GOM spawning alternative 2 (comment #25; however not certain wolffish are spawning at this time)
4. March cod spawning in western Gulf of Maine missed by GOM spawning alternative 2 (comments #31, 32)
5. Aggregations of juvenile cod in Massachusetts Bay not included in current HMA boundaries, considered and rejected CATT alternative (comment #33)
6. Haddock spawning earlier in spring missed by GOM spawning alternative 2; Jeffreys Ledge area closed too early; no spawning closures on Platts or Fippennies (comment #34)

5) References

- Cooper, R. A., H. A. Carr, et al. (1988). Manned submersibles and ROV assessment of ghost gillnets on Jeffreys and Stellwagen Banks, Gulf of Maine. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Oceanic and Atmospheric Research, Office of Undersea Research, 15pp.
- Everett, J.T., and E.D. Anderson. 2008. Report on mobile fishing gear effects and citation validity in NEFMC documents affecting the Atlantic sea scallop fishery. Ocean Associates, Inc. Arlington, VA. 32pp.
- Hermesen, J. M., J. S. Collie, et al. (2003). "Mobile fishing gear reduces benthic megafaunal production on Georges Bank." Mar. Ecol. Prog. Ser. **260**: 97-108.
- Perkins, Herbert C., Stanley B. Chenoweth, Richard W. Langton. 1997. The Gulf of Maine Atlantic Cod Complex, Patterns of Distribution and Movement of the Sheepscot Bay Substock. Bull. Natl. Res. Inst. Aquacult., Supp. 3:101-107 (also listed as ME DMR Reference Document 97/18).
- Philips, Bruce. 2006. Lobsters: Biology, Management, Aquaculture and Fisheries. Wiley-Blackwell. 528pp.
- Stokesbury, K. D. E. and B. P. Harris. 2006. "Impact of limited short-term sea scallop fishery on epibenthic community of Georges Bank closed areas." Mar. Ecol. Prog. Ser. **307**: 85-100.
- Wahle, R. A., and R. S. Steneck. 1991. Recruitment habitats and nursery grounds of the American lobster *Homarus americanus*: a demographic bottleneck? Mar. Ecol. Prog. Ser. **69**:231-243.

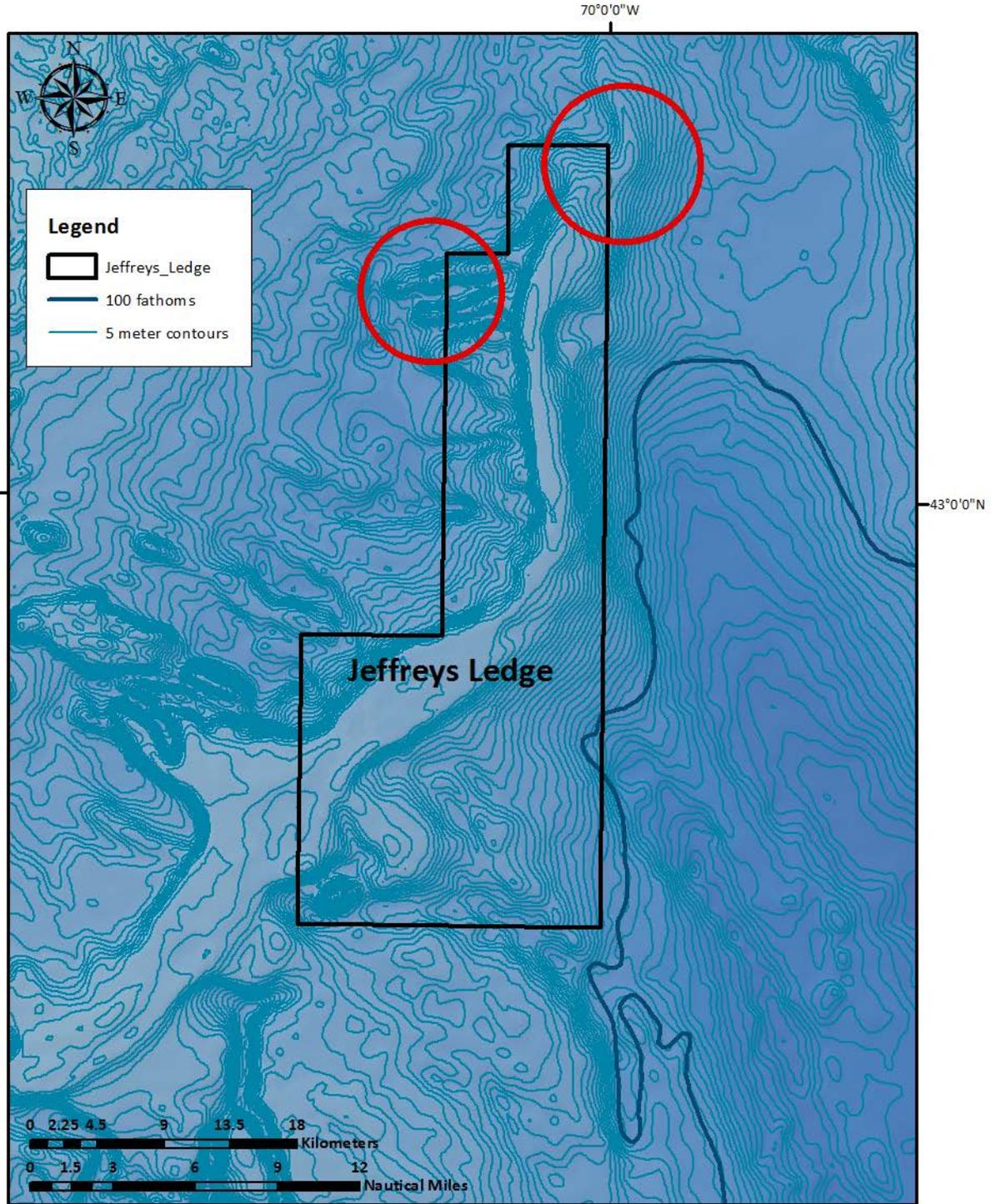
6) Figures

Map 1 – Ten minute squares in the Western Gulf of Maine



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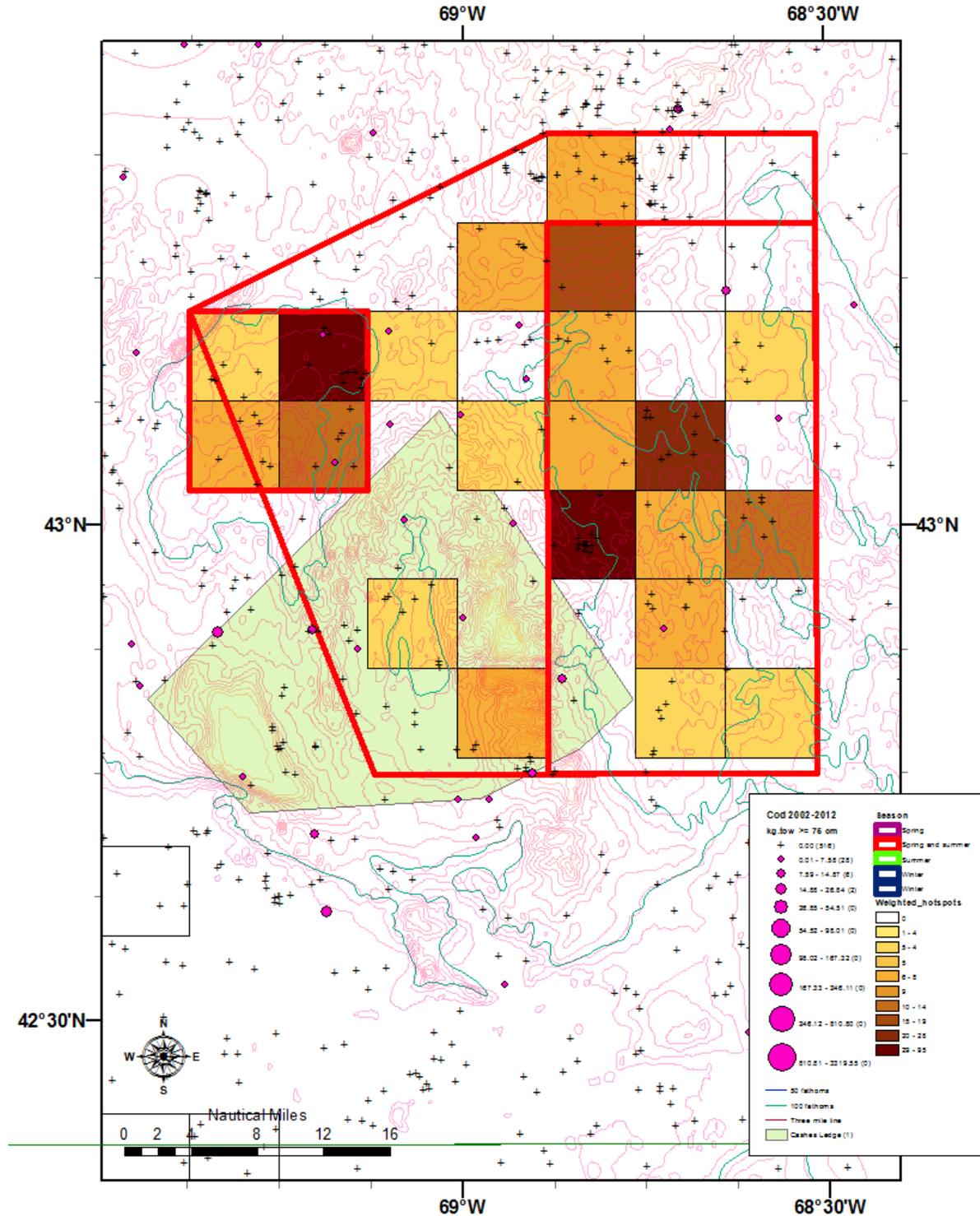
Map 2 – Potential modification of the Jeffreys Ledge Habitat Management Area. Red circles indicate the fingers area and northeastern point of Jeffreys Ledge that are outside the habitat management area as currently drawn.



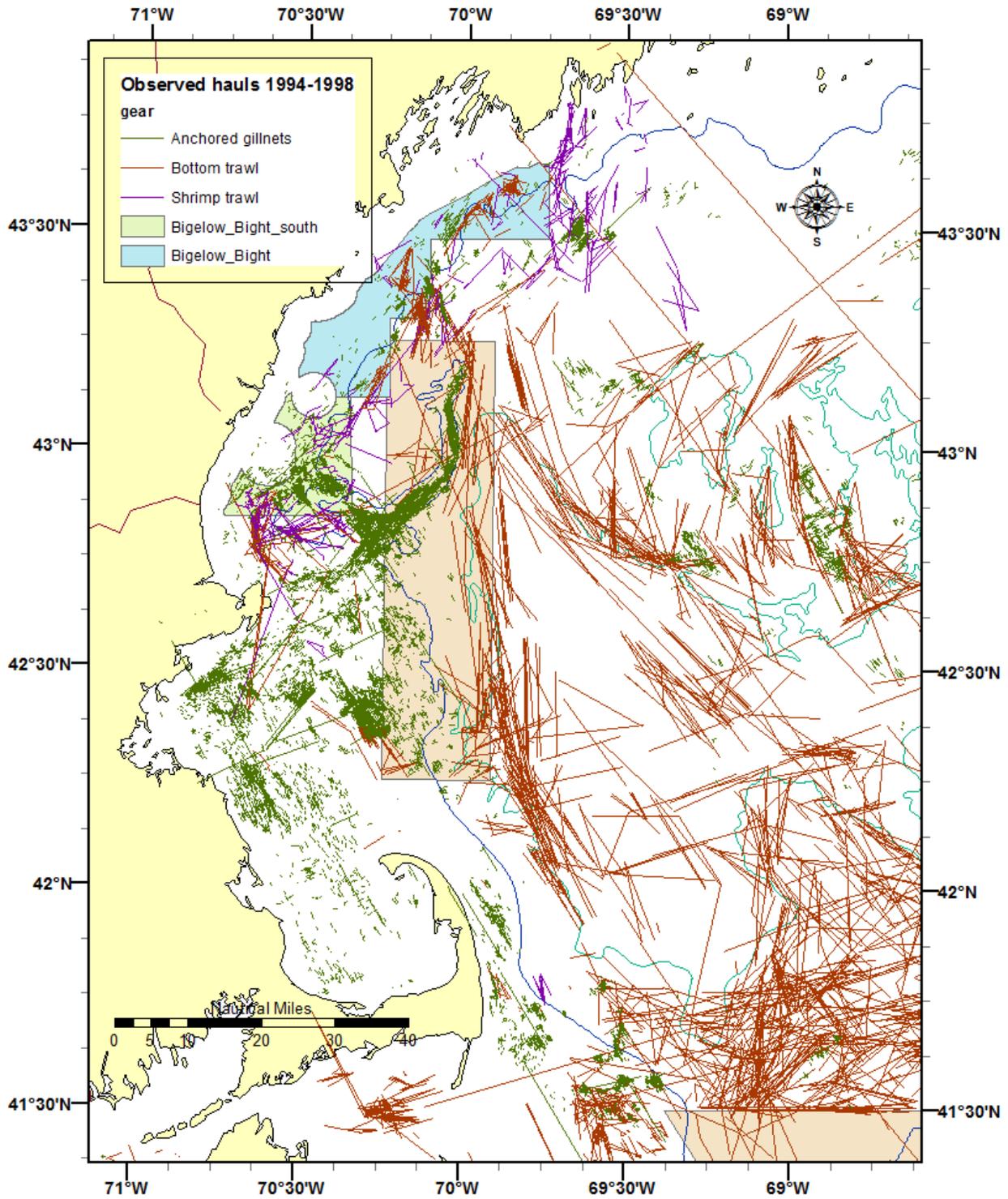
WGS 1984 UTM Zone 19N projection; map updated August 22, 2013

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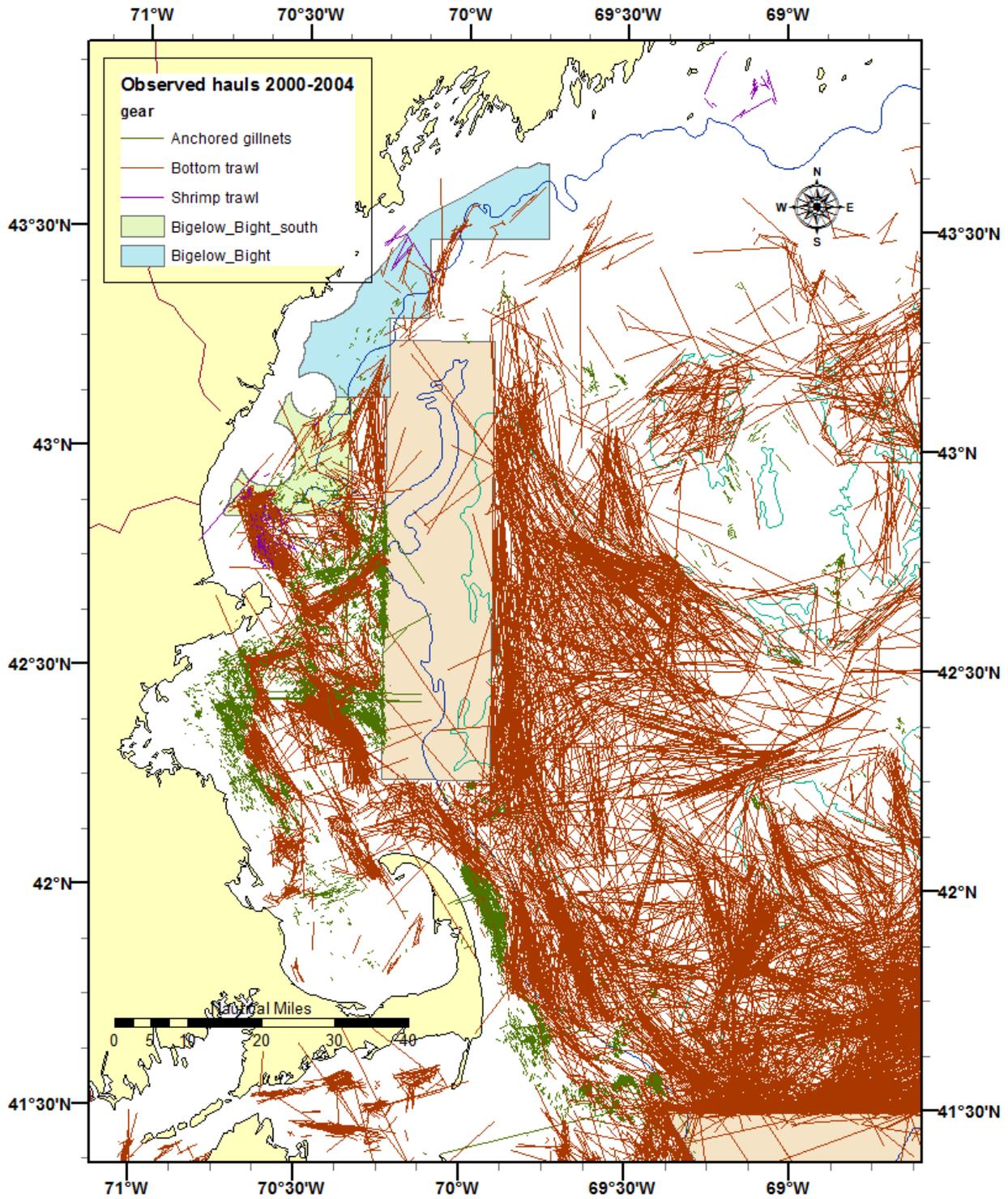
Map 3 – Cashes Ledge region. Map shows current groundfish closure boundary (green shaded area) and CATT-proposed spawning area options (red outline). Dots depict catches of cod greater than or equal to 75 cm during all seasons from survey tows conducted between 2002 and 2012; smaller dots indicate smaller catches. Zero tows with a plus sign. Colored boxes show weighted hotspots from the summer season (i.e. based on data from the shrimp survey); the grid sums up all hotspots for species expected to be spawning during the summer months, with darker colors indicating more hotspots.



Map 4 – Western Gulf of Maine before and after WGOM closed area. Sink/anchored gillnet, shrimp trawl, fish otter trawl from the observer data. For gillnets, lines show the beginning and end of the string. For trawls, lines show the start and end points of the haul. Time period is five years before the closure - 1999-2003.

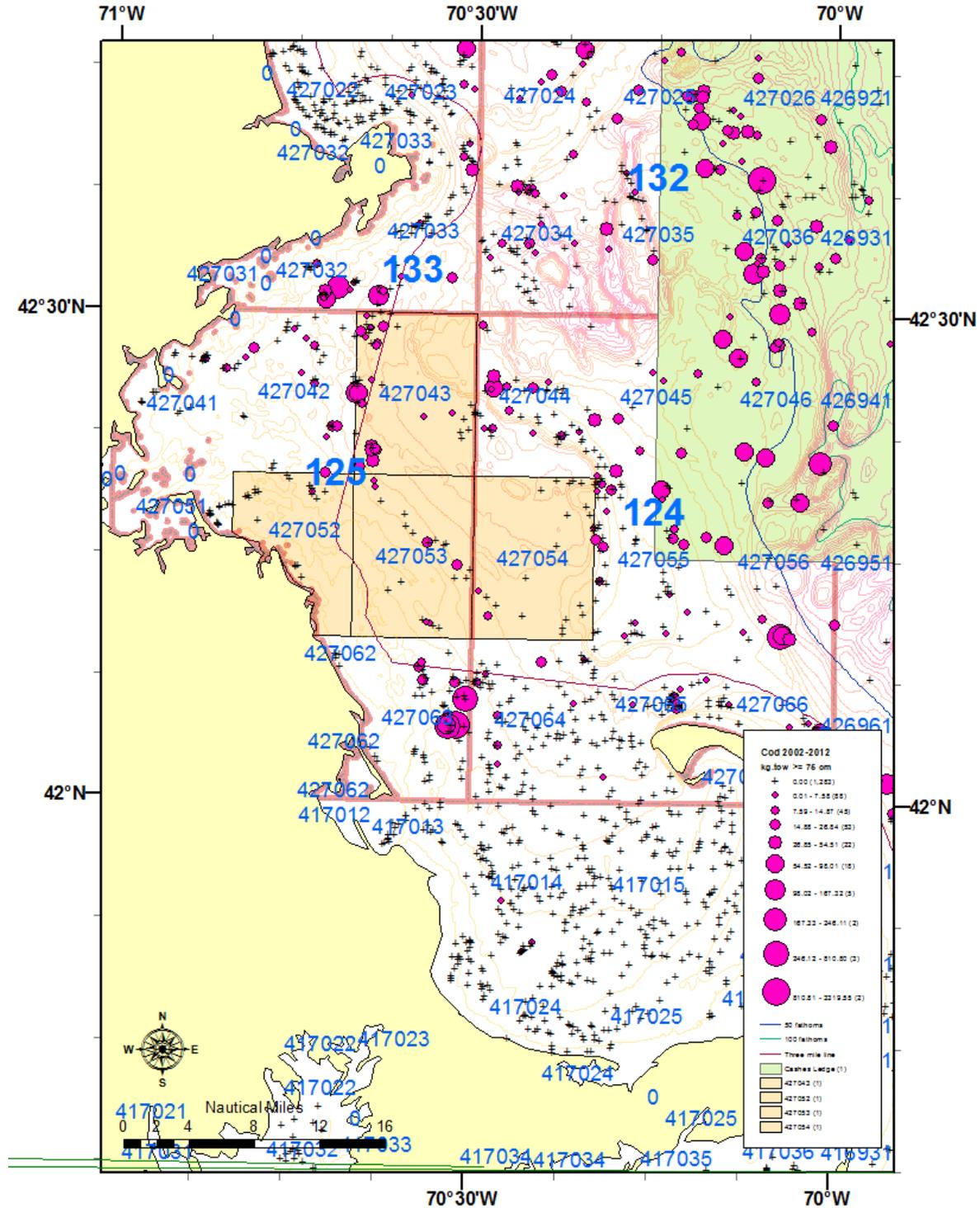


Map 5 – Western Gulf of Maine before and after WGOM closed area. Sink/anchored gillnet, shrimp trawl, fish otter trawl from the observer data. For gillnets, lines show the beginning and end of the string. For trawls, lines show the start and end points of the haul. Time period is five years after closure, starting in 2000.



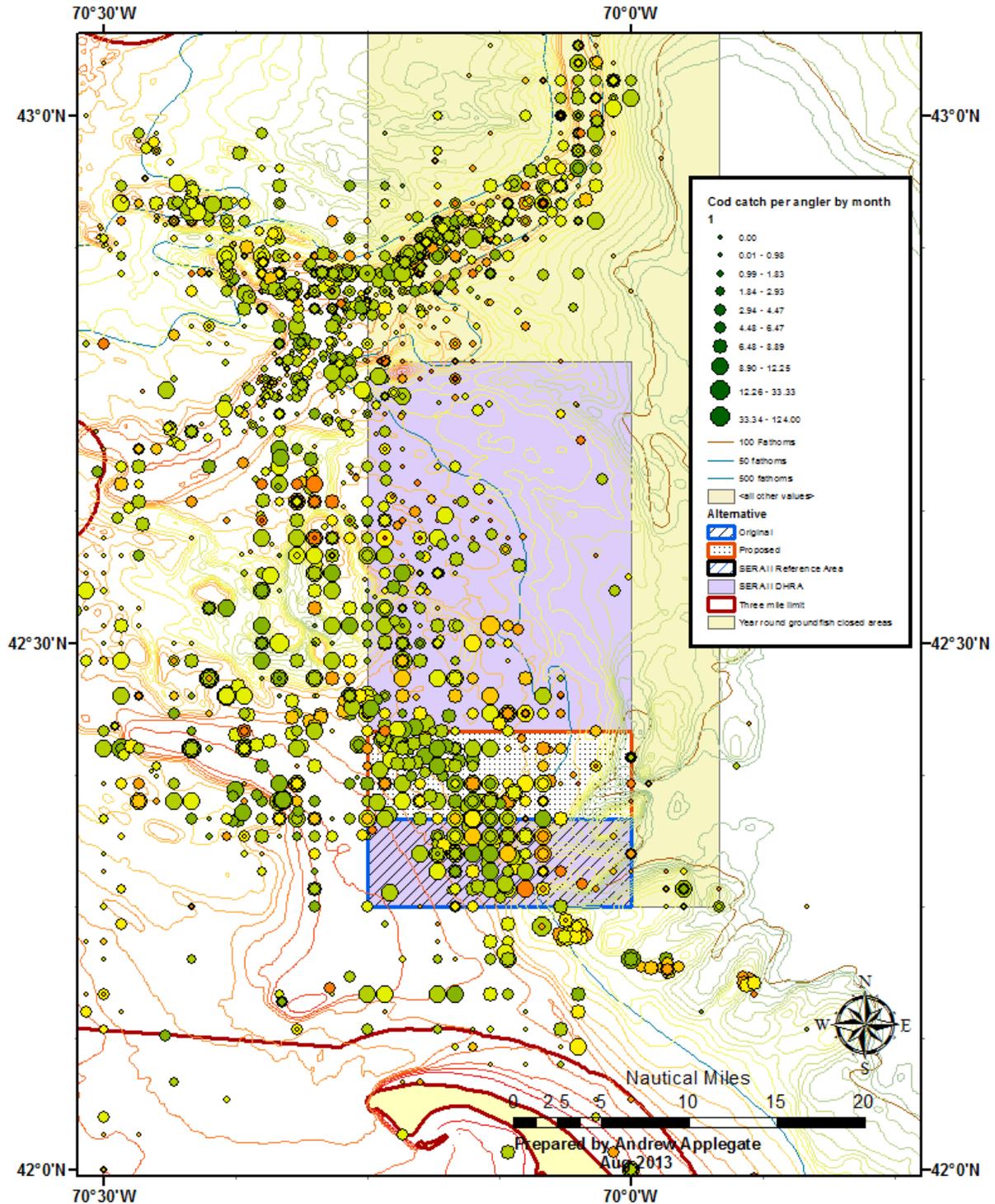
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Map 6 – Massachusetts Bay region. Catch of cod greater than or equal to 75 cm in all surveys year round (larger dots = higher catches; + = zero cod catch tows). Large pink outlined areas labeled with three digits are the thirty minute square blocks that are the foundation of the rolling closures. Smaller blocks with six digit labels are ten-minute squares. Currently blocks 124 and 125 are part of the common pool rolling closures in the fall. Four ten-minute squares referenced in the discussion are shaded beige.



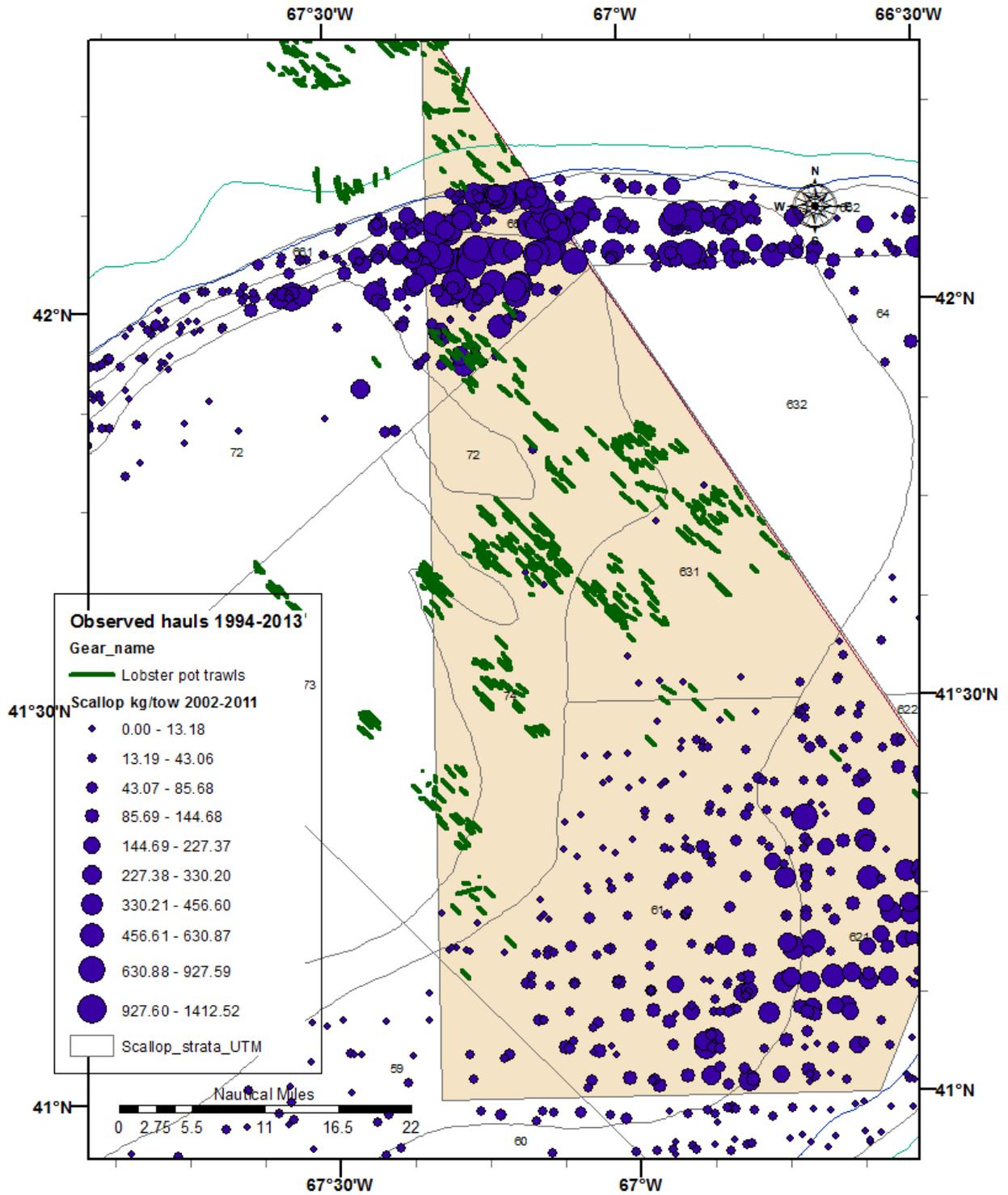
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Map 7 – Calendar year 2012 charter and party trips that landed any groundfish with larger circles indicating greater number of codfish caught per angler. Colors indicate month of the year, with yellow corresponding with summer trips. Original reference area alternative (hatched), as well as an alternate reference area alternative (stippled/dotted), are shown. The remainder of the research area alternative is shown in solid purple, and the WGOM groundfish closure is shown in yellow.



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Map 8 – Scallop biomass in the NMFS dredge survey (blue circles) as compared with observed lobster fishing locations. Green lines indicate the start and end points of a trawl of lobster traps. Note that observer data for the lobster fishery are relatively sparse.





New England Fishery Management Council

50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116
C.M. “Rip” Cunningham, Jr., *Chairman* | Thomas A. Nies, *Executive Director*

**NEFMC Staff Would Like to Meet
with Fishermen
*Registration deadline - July 26, 2013***

As part of an effort to update its current Habitat Amendment, the Council is considering changes to the current year-round and seasonal closures that apply to the groundfish fishery. The purpose of any new management areas will be to minimize the adverse effects of fishing on essential fish habitat and promote groundfish productivity. The new areas may be closures or areas where there are specific gear requirements.

Compared to the current closed areas, the alternatives will likely reduce the total area closed to fishing, but there could be significant changes in the locations of area closures. Each was developed using a number of data sources and analytic techniques but there may still be gaps in our knowledge.

The Council would like its staff to meet with fishermen from various areas, those who use different gear types to catch groundfish and who also have first-hand, current, and verifiable information about juvenile or spawning groundfish aggregations.

The information collected will be reviewed by Council technical teams and may be used to refine the boundaries of the current alternatives, or may point to areas where further investigation is needed to support future changes. The Council believes fishermen’s observations will be a useful addition to our knowledge about groundfish distribution and may provide insights into the behavior of juvenile and spawning fish.

What types of information could participants provide? We are looking for information that may help:

- Refine area boundaries, seasons and appropriate management measures
- Improve the analyses in the amendment by providing:
 - Feedback on how areas and measures may influence fishing operations;
 - Ideas on how to evaluate feasibility, economic effects and redistribution of effort
- Identify potential implementation issues

How will the meetings be organized? The staff plans to organize three meetings in various locations (see below) to collect information directly from fishermen or others who have not already provided these types of details to the Council. Either individually or in small (2-3 person) groups, participants would meet with staff by appointment.

Because staff time is limited we may not be able to meet with every person who responds to this notice. We will give preference to those who have not yet provided these details to the Council, and will also seek to meet with representatives from different areas and different gear types.

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Details and dates

Pre-registration will be required so that Council staff can make the most use of your time and theirs. To do this, please fill out the form by going to the following web page, <https://adobeformscentral.com/?f=OcrLiQDD0sdNZ6MfBTwZcw#> or by filling out the attached form and mailing it back to the office.

Interviews are scheduled in the following locations. We will notify the exact locations when we confirm your appointment.

Tuesday, August 6, – Brunswick, ME

Thursday, August 8 – Portsmouth, NH

Monday August 12 – Taunton, MA

The staff also will be providing you with informational materials as well as a specified time the location of your interview once they have received the completed forms. The deadline for completed forms is Friday, July 26, 2013. Interviews could last from 30-90 minutes, depending on whether you participate in a small group or as an individual.

What happens next? In addition to the Council's technical teams, your information will be reviewed by the Council's Joint Habitat/Groundfish Committee and the Council. Staff also will prepare a summary of the information received as part of the record which documents the development of the Habitat Amendment.



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C.M. 'Rip' Cunningham, Jr., *Chairman* | Thomas A. Nies, *Executive Director*

July 30, 2013

«AddressBlock»

«GreetingLine»

Thank you for your application to meet with us and discuss information and data you have regarding groundfish spawning, groundfish nursery habitats, probable effects of measures on fishing operations, and any implementation issues. The information and data you provide will be considered in the development of the Omnibus Habitat Amendment.

Your meeting with Council staff members Michelle Bachman and Andy Applegate has been scheduled at the following location and time. Others with similar interests and information on their application may be scheduled to meet with us at the same time and location.

10:00 a.m.-11:00 a.m.

«Date»

«Hotel»

«Address»

«City1»

«Phone»

To help you prepare for your interview, please review the informational package posted on our website: [http://www.nefmc.org/habitat/Informational%20package%20for%20Habitat-GF Mtgs.pdf](http://www.nefmc.org/habitat/Informational%20package%20for%20Habitat-GF%20Mtgs.pdf). This package explains how your data and information will be evaluated by the Council technical teams, describes and maps the alternative management areas, and shows examples of fishery, survey, and habitat data that will be available for detailed discussion.

Please be aware that the intent of these meetings is to gather reliable and verifiable information and data about the management areas under consideration in this action, not to gather comments as to whether you support or oppose the alternatives. Information and data will be summarized by staff, presented to the Council's technical teams, and then presented to the Habitat and Groundfish Oversight Committees. Your information may or may not be used to refine the proposed management alternatives, or to identify areas for future research and monitoring.

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Your interview will be digitally recorded for the administrative record and as such will be available to the public upon request. Mileage and other travel expenses will not be reimbursed by the Council. If you have any further questions before the meeting, please contact Michelle Bachman (978-465-0492 ext. 120, email: mbachman@nefmc.org) or Andrew Applegate (978-465-0492 ext. 114, email: aapplegate@nefmc.org).

Sincerely,

A handwritten signature in cursive script that reads "Thomas A. Nies".

Thomas A. Nies