



New England Fishery Management Council

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DRAFT MEETING SUMMARY

Scallop PDT Meeting

Coonamessett Inn, Falmouth, MA

August 25 and 26, 2015

The Scallop PDT had a two-day meeting on August 30 and 31 in Falmouth, MA to: 1) review preliminary 2016 survey results and combined biomass estimates; 2) discuss observations of parasites in scallop meats; 3) review FY2016 fishery data and other relevant information for developing specification alternatives; 4) review and discuss updates to LPUE model; 5) review Framework 28 Management Measures; 6) review updated price model; 7) receive an update overview of 2017/2018 Scallop RSA FFO, 8) discuss recommendations for 2017 Scallop FMP priorities.

MEETING ATTENDANCE: Jonathon Peros (PDT Chair), Trish Cheney, Dr. Bill DuPaul, Travis Ford, Dr. Demet Haksever, Dr. Dvora Hart, Chad Keith, Emily Keiley, Dr. Cate O'Keefe, Danielle Palmer, Katherine Richardson, and Dr. David Rudders. MaryBeth Tooley, Chair of the Scallop Committee attended as well as about 30 members of the public.

AGENDA ITEM #1: REVIEW PRELIMINARY 2016 SURVEY RESULTS AND COMBINED BIOMASS ESTIMATES

The PDT reviewed survey results from all available surveys conducted in 2016: VIMS dredge survey of the Mid-Atlantic, Nantucket Lightship and surrounds, and Closed Area II and surrounds; SMAST large and DSC camera industry-funded detailed survey of Closed Area I Access Area and surrounds, and Nantucket Lightship and surrounds; WHOI HabCam V4 on Northern Edge area of Georges Bank; Habcam Group (Arnie's Fisheries) HabCam v3 survey of the Elephant Trunk; and the federal NEFSC combined survey including dredge tows on GB and Habcam V4 of both the MA and GB regions. Overall, the resource area was well sampled in 2016 and the PDT has access to very extensive survey data for biomass and fishery projections for Framework 28. Each presentation is summarized below, and the presentation slides are available with other meeting materials on the Council website for this meeting.

VIMS – Dr. David Rudders

The VIMS 2016 survey season included three surveys between mid-May to late June. The VIMS dredge survey continued its use of a random stratified survey to increase precision. It covered the NMFS shellfish strata as well as some additional areas in the Mid-Atlantic Bight (Block Island to Long Island Sound), the NLCA and surrounds, and CA II and surrounds. The 2016 VIMS work includes several secondary project objectives, such as gear performance, scallop biology and product quality, finfish bycatch, scallop predators, and additional sampling requests. Four vessel (3 veteran, 1 new to the survey) were utilized. Approximately 5,000 SH:MW samples were taken during the MAB survey (15 per station). VIMS collected ~1,000 SH/MA samples from the both the NLCA and CA II surveys (again, 15 per station). High spatial and temporal variability in SH:MW relationship in the MAB and CA II is likely a function of depth for each sub-area. For NLCA, significantly

different relationships between SAMS regions and zones is likely a function of both depth and scallop density. The PDT discussed that when evaluating SH/MW relationships, animals in different spatial areas may follow different spawning cycles.

Dr. Rudders summarized the major take homes: 1) biomass in MA closed areas, as well as the NLCA and CA II access areas and surrounds appear to be strong; 2) general lack of strong recruiting year class across all surveyed areas; 3) managers will need to consider how to handle the age 4 scallops in the NLS if expected growth is not realized. This may result in a reduced contribution of yield to the fishery relative to the projections; and 4) continued and expanded presence of a nematode parasite observed in the scallop meats was observed in portions of the MA region.

SMAST – Ms. Emily Keiley

Ms. Keiley reviewed the results from the 2016 SMAST scallop survey season, which included two industry funded projects to conduct intensive surveys (1.5nm grid) of CA I, as well as NLS and surrounds. All surveys included a large camera, small camera, as well as a digital still camera.

These surveys completed 549 stations on two separate cruises in June, starting with CA I. Ms. Keiley compared the survey results from 2015 to 2016 for the NLSA, which indicate that average shell height, total average biomass, and exploitable average biomass all increased. However, abundance of animals appears to have declined in two sub-regions of NL. Shell height frequencies in the NLSA from large camera data show the highest frequencies between 50mm and 100mm. The SMAST DSC results suggest of 92 million lbs of total biomass in NLS access S, about 12% is exploitable (11 million lbs). The DSC also detected a large biomass of scallops in the NLS closed area (72 million lbs, 33 million of which is exploitable). Roughly 30 million lbs of exploitable biomass was initially estimated for NLS access/open areas from 2016 DSC survey.

Ms. Keiley explained that scallops appear to be growing slower in the southern portion of the NLS. The PDT discussed slow growth rates, and questioned the assumption that these animals can grow 16-17mm per year at the depth and density they are being observed in the southern portion of the NLS. The PDT recommended that a new SH/MW relationship be developed for the southern portion of the NLS using VIMS survey data. Dr. Hart indicated that the L infinity values in the SAMS model could be reduced to account for this (~20 mm from 155mm).

In terms of the size frequency of observed scallops, the highest frequencies in the CA I large camera data were of animals 100mm and larger. The total estimate of biomass from the DSC in the CA I Access is about 3 million lbs (2 million lbs exploitable). The majority of the exploitable biomass remains in the closed “sliver” area just north of the CA I Access boundary. 2016 DSC results estimate 12 million lbs of biomass in CA I NA, of which 10 million lbs is exploitable. The Council voted to open the CA I NA through OHA2 action, but a final rule is not expected until the spring of 2017.

WHOI – Dr. Scott Gallagher

Dr. Gallagher reviewed results from the WHOI survey of the northern edge of Georges Bank, which included the Northeast Reduced Impact Habitat Management Area, the Northeast Habitat Management Area, and eastern Georges Shoal. The WHOI survey used HabCam v4 on the F/V Jersey Cape in partnership with Lund’s Fisheries. Survey data suggests up to five cohorts of scallops within the footprint of the survey. The Dr. Gallagher’s analysis used 85mm as a cutoff for exploitable biomass. Approximately 53 million lbs of total biomass (small, medium, exploitable) were estimated in the survey area, 46 million of which was considered exploitable at greater than 85mm. The majority of the biomass in the eastern Georges Shoal area was considered to be exploitable, ~14 million lbs. Smaller scallops were observed closer to the Canadian line, with pockets of

larger animals observed in deeper areas to the north. The PDT discussed scallop meat quality in this area, with NEFSC staff commenting that meats observed in the federal dredge survey looked healthy.

HABCAM GROUP – Dr. Han Chang

Due to unforeseen circumstances, all members of the HabCam group could not attend the PDT meeting in person but were able to join through a GoToMeeting connection. Dr. Chang presented preliminary results from Elephant Trunk surveys conducted with Arnie's Fishery/HabCam Group using HabCam V3. The survey was conducted using the F/V Kathy Marie on a single cruise from July 9 to July 15. Dr. Chang noted that HabCam was towed continuously for more than 700nm. The survey covered ~720 nm (with 2.5nm between transects) in the Elephant Trunk area, collecting 2.68 million images. Approximately 1/200 images was annotated (roughly 10,265). The survey estimated a total biomass of 26,039 mt in the ET open area, and 39,140 mt in the closed area. Highest concentrations of animals were observed in the southern portion of the ET closed area. Some pockets of recruitment were observed (26-50mm shell height) in the area, with the majority of potential recruitment in the 51-75mm range. The mean length frequency in the area was 79mm, which is consistent with data from the VIMS dredge survey.

FEDERAL NEFSC SURVEY – Dredge and Habcam v4- Dr. Dvora Hart

Dr. Dvora Hart explained the 2016 federal survey; the dredge survey was done on portions of GB only (including the GSC) because VIMS covered the MA, CA II and extension, and NLS and extension. Habcam v4 was used in both regions, with results supplemented by the HabCam Group's survey of ET and the WHOI survey of the Northern Edge. Over 100,000 HabCam photos were manually annotated in 2016. The MA leg was conducted in late May and GB in June. Dr. Hart explained that about 1 in 50 images have been processed (one image every 25meters) and preliminary analysis of automated annotations is under way as well.

Dr. Hart covered survey highlights, explaining that high densities of 4 year old scallops in Nantucket Lightship Area and Extension, and 3 year old scallops in HCCA and Elephant Trunk. However, scallops in the southern portion of NLS (deep water) are growing very slowly. She went on to say that patches of high densities of 6 year old scallops were observed in dredge tows and HabCam v4 of the northern portion of Closed Area I. Decent densities of scallops were seen in the southern portion of CA II AA, but scallops in the CA II extension area still small. She suggested that open area exploitable biomass will be moderate at best. Dr. Hart also noted that large quantities of sea stars and crabs were observed in the shallow portion of the HAPC on the Northern Edge.

Dr. Hart also presented a preliminary exploration of dredge efficiency in high densities of scallops. A comparison of 281 HabCam/dredge pairs from the 2016 survey were examined with at least 50 square meters of Habcam photos within a 0.75 sq nm of dredge tow and with at least minimal scallop densities. Dr. Hart reported that the apparent efficiency of dredge tows in high density areas were all below the expected survey efficiency of 0.4, suggesting that the dredge operates at reduced efficiency when scallop density is very high. The PDT had a lengthy discussion on this issue. Dr. David Rudders explained that VIMS is in the middle of a two year study comparing 15 minute v. 10 minute tows. The PDT noted that dredge efficiency should be reviewed at the next benchmark assessment. One PDT member felt that additional analyses accounting for the size of scallops was needed. A member of the public suggested that when the dredge fills up, it could start bulldozing, and that shorter tows may not be the answer to this issue.

PRELIMINARY COMBINED ESTIMATES

Dr. Hart combined all the biomass estimates available on one slide for both MA and GB. This year the PDT considered two separate methods for combining the results: 1) simple mean; 2) inverse weighted mean (IVWM); Dr. Hart explained that the IVWM weighs the survey method with the lowest standard error more than the others. The issue with this approach is that the Habcam estimate is model based and because the model

believes all the parameters put in the model are accurate, the standard error is lower. Dr. Hart pointed out that model based standard errors tend to be underestimated, and that with more data, the standard error may be closer to being true. The PDT opted to move forward using a simple mean, but felt that other methods for combining estimates should be explored. The PDT briefly reviewed 2015 PDT discussions about combining estimates in conversation, but elected not to pursue alternative methods that had been discussed at that meeting. One member of the PDT pointed out that the SSC has suggested that the mean may be a better approach than the IVWM. The PDT did not support using the IVWM.

SMAST presented two estimates in 2016 – one using the large camera and the other from the DSC. The PDT noted the smaller view area and high image quality of the DSC, and felt that the DSC would be more likely to detect small scallops than the large camera. This was the first year that the DSC data was available. The PDT recommended using DSC estimates in the preliminary biomass estimate.

The PDT spent the better part of the discussion reviewing survey biomass estimates for the NLS-NA (the habitat area in the Nantucket Lightship). The HabCam estimate in this area was originally ~160,000 mt, while the dredge survey estimated ~26,000 mt, and the SMAST DSC survey estimate was ~33,000 mt. Dr. Hart explained that the HabCam photos showed on average 30-40 animals per square meter, while the average in the fishery is about 0.4 per square meter. The PDT revisited its earlier conversation about dredge efficiency in high scallop densities as a potential reason why the dredge estimate was so much lower than HabCam. One member of the PDT suggested that a lower dredge efficiency in the area would bring the dredge and HabCam numbers closer together. There was not an obvious reason in the data presented that could explain why the two optical estimates varied so widely. The PDT had difficulty reconciling the divergence in these estimates. The group will continue to discuss these estimates at upcoming meetings.

UPDATE SINCE AUGUST 30/31 MEETING ON NLS NA ESTIMATES: The NLS_NA and NLS access areas have updated biomass estimates because an error was found in the boundary line separating these areas (10' too far east in initial estimate). This will reduce the estimate in the NLS_NA, and increase the estimate in the NLS access. This change requires survey groups to re-estimate biomass, and updated survey biomass estimates for the NLS_NA will not be ready for the September AP and Committee meetings.

NORTHERN GULF OF MAINE: Mr. Michael Torre

Mr. Michael Torre presented the results of the 2016 Maine DMR NGOM scallop survey, which was funded through the scallop RSA. The last time the NGOM was surveyed was 2012. The survey was conducted in May and June of 2016 over 238 stations in 7 areas throughout the Gulf of Maine (Cape Ann to Machias Seal Island). The gear remained the same from past surveys with a 7' dredge that was a New Bedford-style chain sweep with 2 inch rings, unlined, with rock chains. Tow lengths were 5 generally minutes and tow speed was around 3.5 kts. The majority of the harvestable biomass in the NGOM management area is currently off of Cape Ann. Smaller concentrations of biomass (>101mm) were seen in Machias/Seal Island, and on Platts Bank. The survey also covered bottom outside of the NGOM management area on Fippinies Ledge. The survey used a random stratified design. Biomass estimates were substantially higher in 2016 than they were in 2012. Mr. Torre presented biomass estimates to the PDT using an $F=0.38$ and an $F=0.26$. The PDT requested a new model run using an $F=0.2$, with estimates at the $q.25$ and $q.10$. The PDT noted that the NGOM is a relatively “data poor” situation when compared to the annual surveys of Georges Bank and the Mid-Atlantic, and viewed the biomass estimates coming out of the $F=0.2$ runs as upper bounds of removals.

PDT'S PRELIMINARY DISCUSSION RE: SURVEY RESULTS:

- The PDT discussed preliminary biomass estimates and potential fishery specification alternatives. The numbers are not final yet, and will change again after updates to the NLS biomass estimates are made by survey groups.

Area	Initial PDT Discussion - Preliminary
CA I AA	<p>There are patches of 6 year old animals were observed in the "sliver" area, outside of the current CA I AA boundary. Meat samples collected from the NEFSC dredge survey appeared healthy (no gray meats). The PDT supports access to CA I if the AA boundary is expanded to include the biomass that has been observed in the "sliver" area. PDT recommends that the first opening of CA I AA should focus on addressing carryover trips which are already on the books (~1.5 million lbs.). Access to the scallop biomass in the northern portion of CA I is contingent upon NMFS approving the Council's preferred OHA2 alternative, and a follow-up scallop action. The group noted that meat quality in the CA I area declines in the fall, and some concern was expressed that the timing of final rule for the habitat amendment (and subsequent scallop action) may delay access to the area. The group talked about exploring a cut-off date when any potential CA I measures/access would be pushed back to FY 2018 (not pursued in FW28), and briefly discussed allocating CA I carryover trips over a two year period to allow for some flexibility given the uncertainties with the timing of the OHA2 process and final rule.</p>
CA II S AA	<p>Given the preliminary mean biomass estimate available at the meeting, the PDT discussed the potential for trip to CA II AA in this framework. The group noted that the majority of pre-recruits (<75mm) observed by the VIMS dredge survey were to the south and southeast of CA II S AA. The PDT also noted that a seasonal closure from Aug. 15 - Nov. 15 has been in place for CA II to reduce GB YT catch.</p>
CA II Extension	<p>The group noted that meat weights were lower in this area than CA II AA S, and that 2, 3, and 4 year old animals were observed in the survey this year. The VIMS dredge survey observed higher densities of pre-recruits (<75mm) to the south and southeast of CA II. Based on this information, initial PDT input was to keep this area closed for another year, and eye a FY2018 opening.</p>

<p>Nantucket Lightship</p>	<p>The 2016 surveys (NEFSC, SMAST, VIMS) observed larger scallops in the NLS AC N area with an average shell height of 110mm, and smaller animals in the south. One PDT member pointed out that the NLS N is a place where scallops can reach 155mm. The PDT noted that there is limited growth potential for animals in the southern portion of the NLS (factors include density dependence and depth). The PDT recommended using the VIMS SH/MW curve for the NLS south and NLS ext. closure.</p> <p>Given the differences in growth potential and scallop sizes within the NL access area, as well as preliminary biomass estimates, the PDT discussed the idea of creating northern and southern access area zones in the NLS. The concept is that the NLS AA S would run from the northern boundary of the NLS bump out rotational closure (40 33') west to the NLS habitat closure. The PDT noted that there is a substantial difference in the preliminary biomass estimates for the NLS N and NLS S areas. Qualitatively, it seems as though at least 1 trip is possible in the "NL AA S" area, and perhaps a smaller trip in the "NL AA N" area (slightly smaller area than 2016 GC opening). Industry in attendance at the PDT meeting suggested smaller trip limits vs. a lottery if the NLS AA N is open (9,000 lbs. was one idea - could go higher after exploitable biomass estimates are finalized). The PDT generally agreed with this. One fishermen stated that he had taken IFQ trips in the NLS this year, and that meat weights increased after the opening.</p> <p>NOTE: The NLS estimates for NLS closed area, NLS access N, and NLS access S are being updated to reflect corrected boundaries. The biomass in the access areas will increase as a result of this correction.</p>
<p>MAAA (Megatron)</p>	<p>Given the preliminary biomass estimates in the HC, ET, and DMV the PDT talked about the potential for two AA trips in FY2017 (not accounting for ET closed). The PDT was supportive of continuing with the MAAA approach, and noted that it provides flexibility for vessels and the ability to work around nematodes. The large year class in HC and ET will be 4yo this coming fishing year.</p>
<p>ET Closed</p>	<p>The PDT did not support opening ET closed for FY2017. The group noted densities of smaller scallops in the ET Closed (26-50mm, 51-75mm). The mean length of both the HabCam and VIMS surveys was less than 80mm. The PDT also discussed the overall lack of recruitment in other areas as a potential reason to keep this area closed for another year. This area has been closed for two years, animals in this area have a large growth potential, and another year (Y3) could be positive for meat weights. A counter point to keeping this area closed was that prevalence of the nematode worm increased in ET between 2015 and 2016. While the group did not support opening this area, if the Council does explore an opening, the PDT felt that ET Closed should not default to the MAAA, but be a separate AA trip.</p>

Delmarva	<p>Very low effort observed in the area in FY2016 by both LA and LAGC IFQ. GAMM model suggests high probability of encountering nematodes in Delmarva. The FW27 SAMS model run estimated effort at $F=0.1$ – this may have been too high. PDT discussed setting an $F=0$ in the SAMS runs for next year. Given the prevalence of nematodes and low fishing mortality rates, the PDT also discussed the concepts of keeping the area open and in the MAAA and the potential to convert the AA to open bottom. Either way, the group felt that applying a low F for this area is appropriate. Members of the public commented that not all trips to DMV have encounter nematodes, and that a high prevalence of crabs have been seen in video footage from RSA trips to the area.</p>
Open Areas	<p>The PDT discussed considering multiple F rates for the open areas, including an $F=0.48$ and an $F=0.4$, noting that LPUE was overestimated in 2014 and 2015. (LPUE model is being updated in this FW). One PDT member suggested that DAS could stay at status quo. Overall, the group was interested in seeing exploitable biomass before making any recommendations.</p>
RSA Fishing	<p>The NLS N could be a place to limit RSA compensation fishing, along with ET closed. The rationale to limit NLS N is that if RSA fishing is allowed there, those pounds need to be accounted out of the exploitable biomass, which would impact potential trip limits.</p>
NGOM	<p>Results of the NGOM survey suggest that biomass in the management area has increased since the last survey in 2012. The PDT noted that the NGOM is a 'data-poor' situation compared to the rest of the resource in that it is not surveyed annually, and does not have the benefit of multiple biomass estimates. A range of biomass estimates were presented to the PDT (variables: shell height, F rates, dredge efficiency estimates, and a range of confidence intervals). The PDT recommended developing exploitable biomass estimates using an $F=0.2$, and a dredge efficiency=0.4 for animals larger than 88.9mm. The PDT recommended the $q_{0.25}$ from this estimate as an upper bound for removals from the area (480,428lbs), and suggested that the $q_{0.10}$ value also be considered from this run (350,364lbs) as a more conservative removal target from a biological perspective. The PDT does not recommend using these point estimates as TAC values for the NGOM area because overall F and removals from the management area boundary are not limited by the TAC while the area is open. Therefore, the PDT suggested status quo of 70,000lbs as one potential approach, noting that there was roughly a 20,000lb overage by LAGC this FY. The PDT also discussed using the ratio of the FY2016 GC/LA landings applied to the $q_{0.10}$ or $q_{0.25}$. The AM for this overage is a pound for pound payback. In FY2016, both LA and LAGC vessels fished in the NGOM management area. LAGC vessels operate under a 200 lb. trip limit, while LA vessels work under DAS (open area fishing). The NGOM area closed to all vessels on May 13, 2016 when it was estimated that the LAGC TAC of 70,000 lbs. had been reached. Estimated landings from the NGOM area were 378,335 lbs using VTR point locations to apportion LA landings to the area.</p>

UPDATE FROM 9/9/16 PDT Call: The PDT continued its discussion of the NGOM management area on 9/9/16. The group recommended exploring alternatives that set the TAC at a level that does not amount to a reduction for the GC fishery given the survey results. The group also felt that an increase in TAC should be based on the survey, explicitly, and recommended using the ratio of the GC/LA 2016 landings, multiplied by the q.0.25 or q.10. The biomass estimates should be viewed as general estimates and not taken as point estimates.

2016 NGOM Biomass Estimates:

Exploitation Rate = 0.20						
Dredge Efficiency = 0.40	q0.05	q0.10	q0.15	q0.20	q0.25	Mean
Biomass Estimate (MT)	657	795	932	1018	1090	1651
TAC(MT)	131	159	186	204	218	330
Biomass Estimate (lbs)	1,447,797	1,751,822	2,055,240	2,244,263	2,402,140	3,640,385
TAC(lbs)	289,559	350,364	411,048	448,853	480,428	728,077

AGENDA ITEM #2: DISCUSS OBSERVATIONS OF PARASITES IN SCALLOP MEATS IN THE MID-ATLANTIC
UPDATE

AGENDA ITEM #3: REVIEW FY2016 FISHERY DATA AND OTHER RELEVANT INFO FOR SPECIFICATIONS
 Staff summarized scallop catch and effort information to help inform future specification alternatives. UPDATE.

AGENDA ITEM #4: REVIEW AND DISCUSS UPDATES TO THE LPUE MODEL.
UPDATE

AGENDA ITEM #5: REVIEW AND DISCUSS FRAMEWORK 28 MANAGEMENT MEASURES
 Council staff reviewed FW28 management measures. UPDATE

AGENDA ITEM #6: REVIEW UPDATED PRICE MODEL
 Dr. Demet Haksever reviewed the updated price model. UPDATE

AGENDA ITEM #7: UPDATE ON THE 2017/2018 SCALLOP RSA FEDERAL FUNDING OPPORTUNITY
 Ms. Cheryl Corbett updated the group on additions and changes to the 2017/2018 Scallop RSA FFO. UPDATE

AGENDA ITEM #8: DISCUSS RECOMMENDATIONS FOR 2017 SCALLOP WORK PRIORITIES

The PDT continued its priorities discussion from the July 21, 2016 PDT meeting. The group discussed the existing scallop dredge exemption areas, and suggested that these area be removed following the final rule of the OHA2. The PDT noted that the dredge exemption areas were put in place to help reduce groundfish bycatch when the General Category was open access permit category. The GC permits are now limited access, and the fishery has evolved considerably since the dredge exemption areas were put in place. The PDT’s discussion from the July and August meetings is shown in the table below:

Table 1 - Potential 2017 Priorities and PDT recommendations. This list is not ranked.

	Potential Priorities	Description	PDT Comments from July 21 and Aug. 30/31
1	Set Specifications		<u>High Priority.</u>
2	NGOM Management	Council rec. in April: “... Management actions to consider could be: changing the opening date, and considering consistent gear restrictions, possession limits, and effort controls throughout the NGOM for all permit types.”	When considering recent NGOM survey results, the PDT noted that overall fishing mortality in the area is not limited by the TAC for LAGC vessels. In general the PDT felt that <u>NGOM management is an important issue to consider.</u>
3	Gear modifications to protect small scallops	By Council Action in June 2016. This was a 2016 priority that the Council elected not to pursue in FW28 at June meeting. Potential approaches include extended link, 5 row apron, etc.	Think about how modifying gear can complement the spatial management of the fishery (i.e. closing areas to protect small scallops). Larger than 4” rings in some AA to help reduce discarding marketable scallops (discarding 110 mm scallops on GB). <u>The PDT recommends looking at the objectives of gear modifications to protect small scallops and the development of flatfish AMs together.</u>
4	Measures to address high grading.	Concept Raised by Rick Robbins (June 2016). Focus would be to reduce discard mortality and improve the overall economic performance and production in the scallop fishery. There are incentives in place that may be affecting fishing behavior to increase discard mortality of scallops including low fuel prices, no time constraints in access areas, and high price premiums for larger scallops. One specific idea to facilitate this topic is to convene a specific working group to discuss this issue, potentially including Scallop AP and PDT members.	High grading is an important issue to address, but can be difficult to tease out in existing fishery data. The observer program is starting to collect this information – but this is a difficult question to get at while on the boat. Two places to get at this 1) sorting, 2) while shucking. If pursued, the PDT could look at this in the context of ongoing work on discard mortality. A working group could help to get at lessons learned from other regions. However, it is not clear how much high grading is happening – there is not a smoking gun in the data the PDT has seen and this would need additional analysis. <u>There were priorities added to RSA to look at high grading, the PDT recommends seeing where this heads before adding it to the 2017 work plan.</u>
5	Scallop RSA-Program	Discussion at June Committee about developing goals for the program. Priority could explore the basis for scaling the program? Are grants the right way to administer the program, etc. Should a review of the program	Consider the realized percentage of the projected landings that the set-aside represents (varies year to year). If a review is conducted, the NEFSC should be consulted.

		come before/in conjunction with Council action?	
6	Modify GB access areas	After the OHA2 Final rule – looking at Northern Edge, Nantucket Lightship. Ongoing scallop priority – time sensitive with progress of OHA2 final rule.	This has been on the work/priority list for several years. The HMA-NL has lots of small scallops. (in addition to GB closures) <u>HIGH PRIORITY for NEXT AVAILABLE FW.</u>
7	Develop new flatfish Ams	By Council Action in June 2016. Develop new flatfish AMs for scallop fishery for yellowtail flounder (SNE/MA & GB) and windowpane flounder (SWP & NWP). Council interest pursuing AMs requiring gear modifications vs. current time area closures.	Look at gear modifications in concert with time/area closures. <u>If the Council develops a sub-ACL for northern windowpane this year, corresponding AMs will need to be developed through the scallop FMP. The PDT recommends looking at the objectives of gear modifications to protect small scallops and the development of flatfish AMs together.</u>
8	Remove LAGC scallop dredge exemption areas (would be GF priority)	Remove scallop exemption areas that are part of Multispecies FMP (to reflect changes proposed in OHA2) to allow LAGC vessels to fish in newly opened areas that are outside current exemption areas (if approved)	The PDT recommends completely removing the LAGC dredge exemption areas. These areas were instituted when the GC fishery was open access. The fishery have evolved considerably over time. <u>The PDT recommends pursuing this priority after the OHA2 final rule.</u>

THE NEXT MEETING IS SCHEDULED TO BE A CONFERENCE CALL ON SEPTEMBER 9.

Figure 1 - 2016 VIMS dredge surveys in Mid-Atlantic.

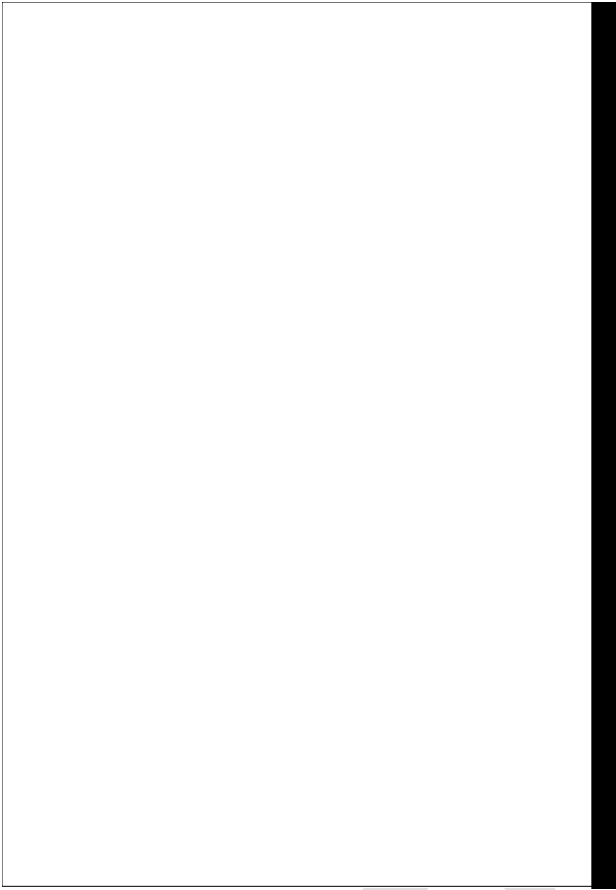


Figure 2 – 2016 dredge surveys of Georges Bank, including VIMS and federal NEFSC dredge survey.

Georges Bank Dredge Biomass Chart

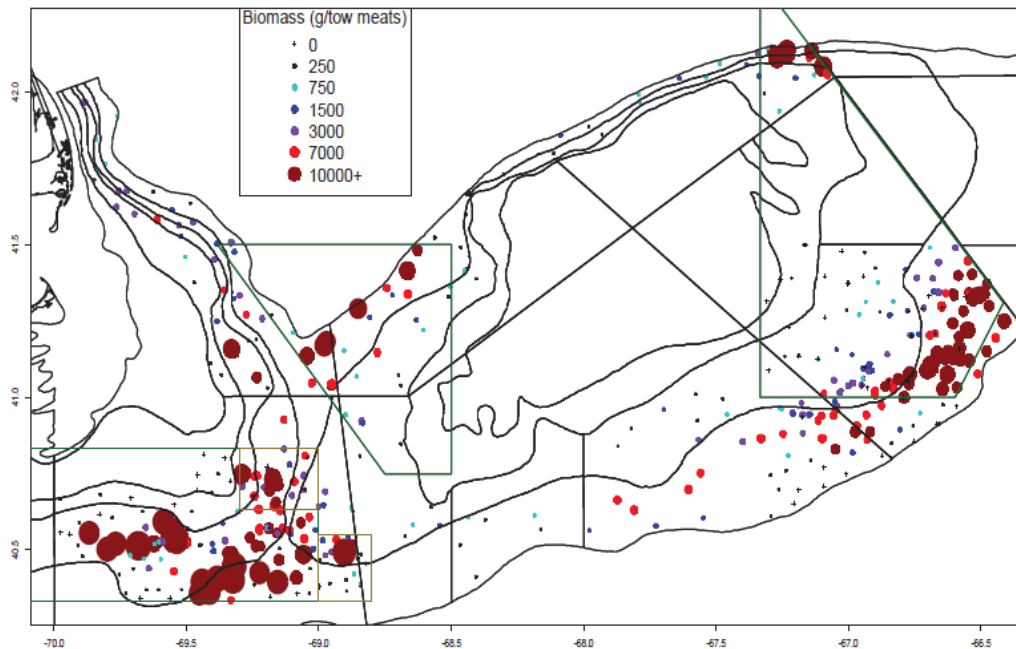


Figure 3 – 2016 SMAST NLS Survey Locations, including Large Camera data.

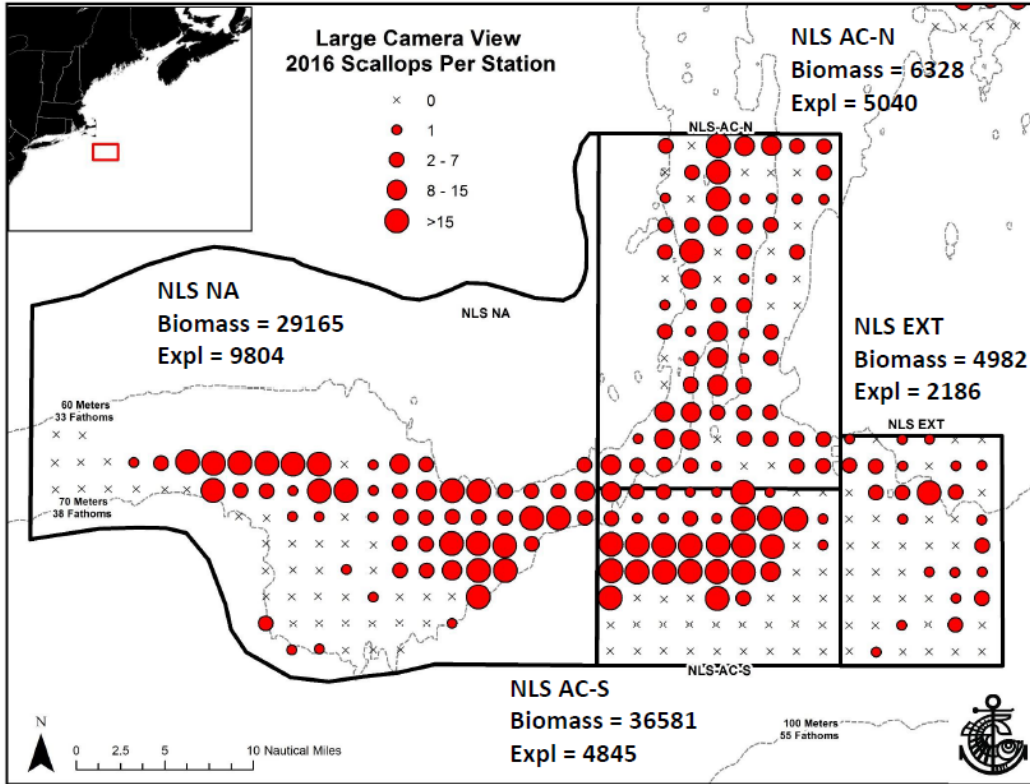


Figure 4 – 2016 SMAST CA I Survey stations, with Large Camera Data.

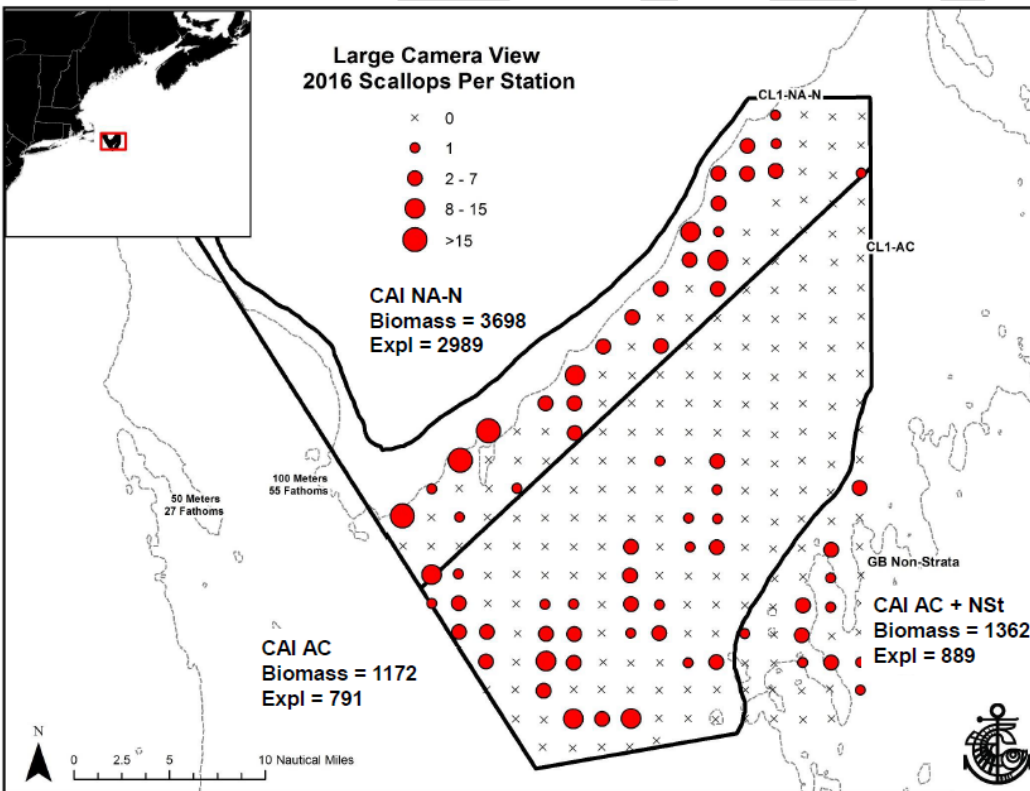
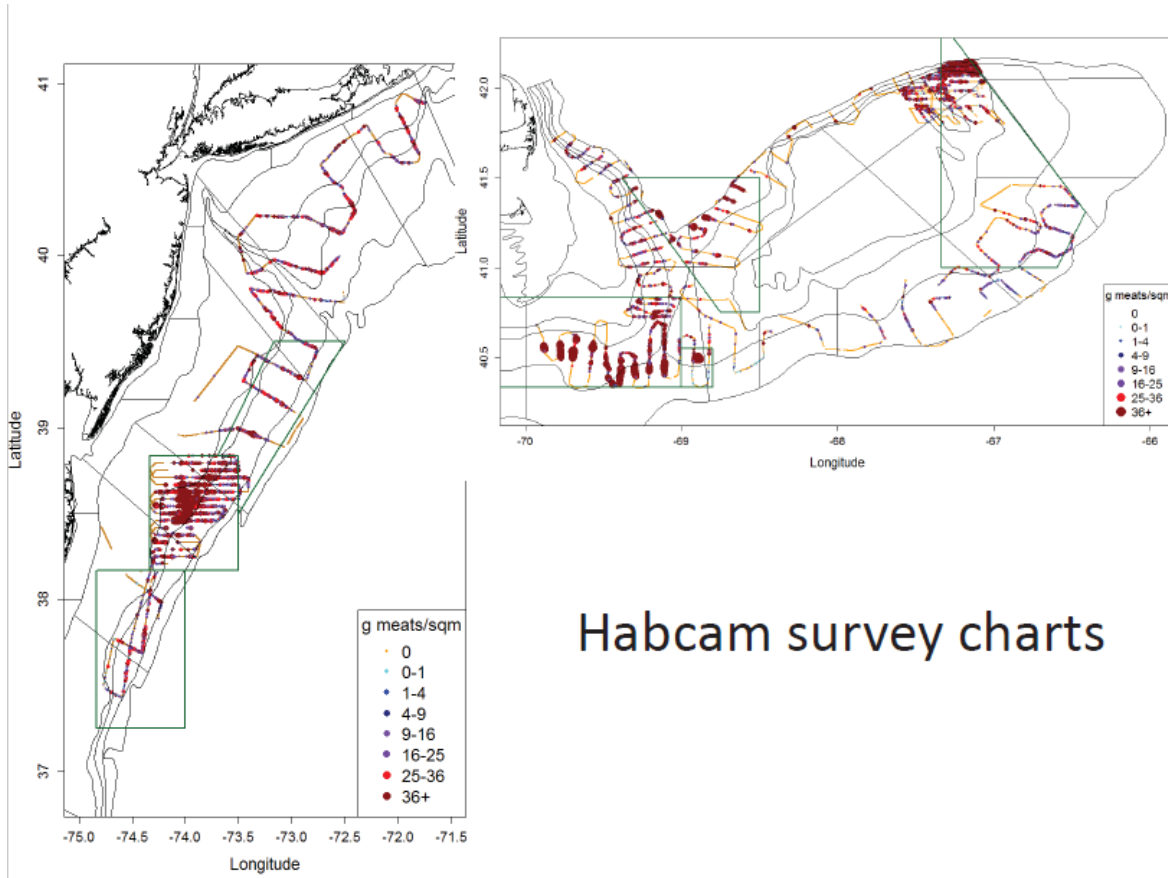


Figure 5 - 2016 combined HabCam transects (NEFSC, HabCam Group, WHOI).



Habcam survey charts

Figure 6 – 2016 WHOI HabCam v4 survey transects of the Northern Edge area.

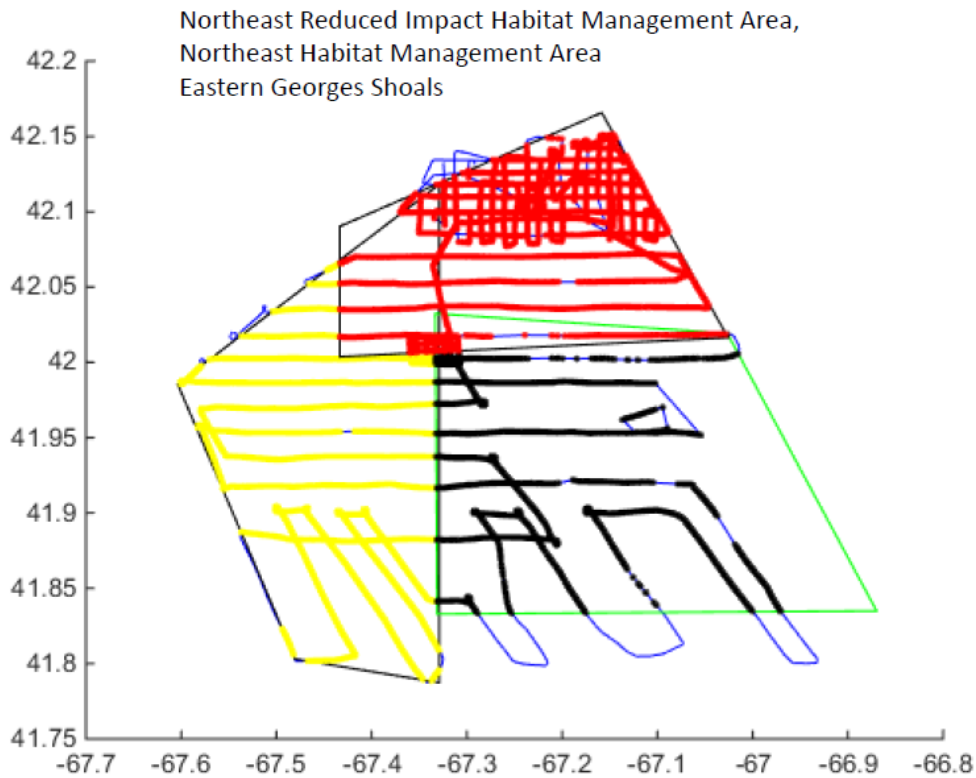


Figure 7 - Length frequency (mm) distributions in Northern Edge area from WHOI HabCam v4 2016 survey.

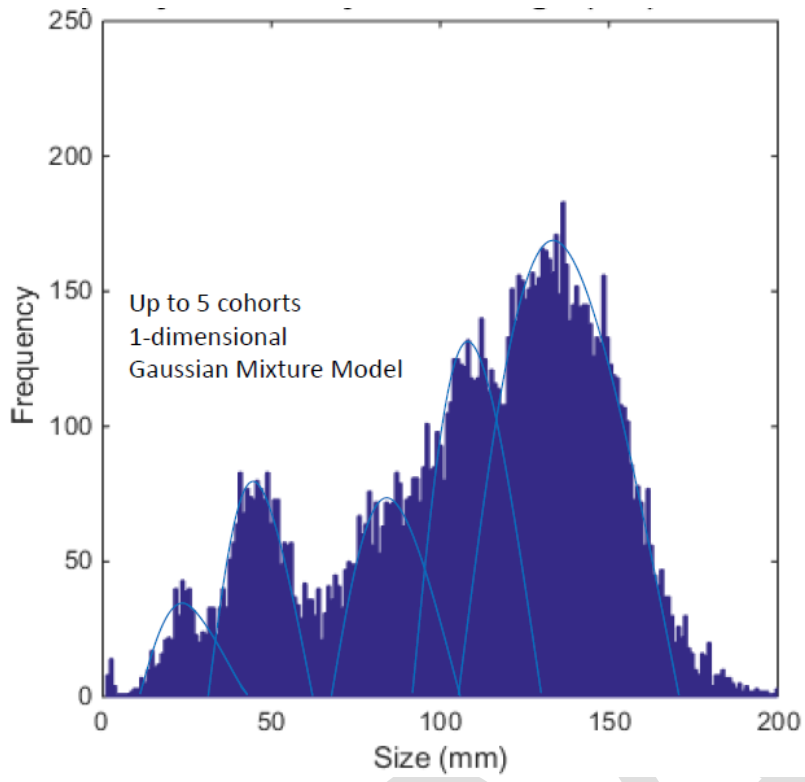


Figure 8 - Transects from HamCam Group's 2016 Elephant Trunk survey.

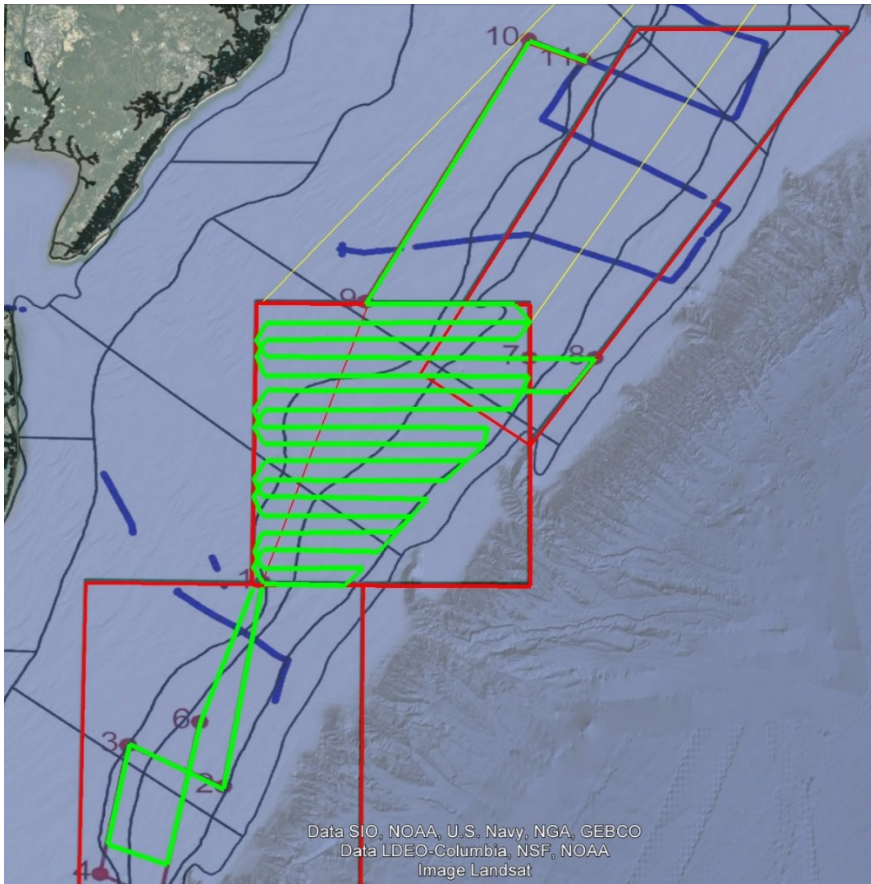


Figure 9 - Plot from HabCam Group's ET survey of observed gram per m2 and predicted mt per km2.

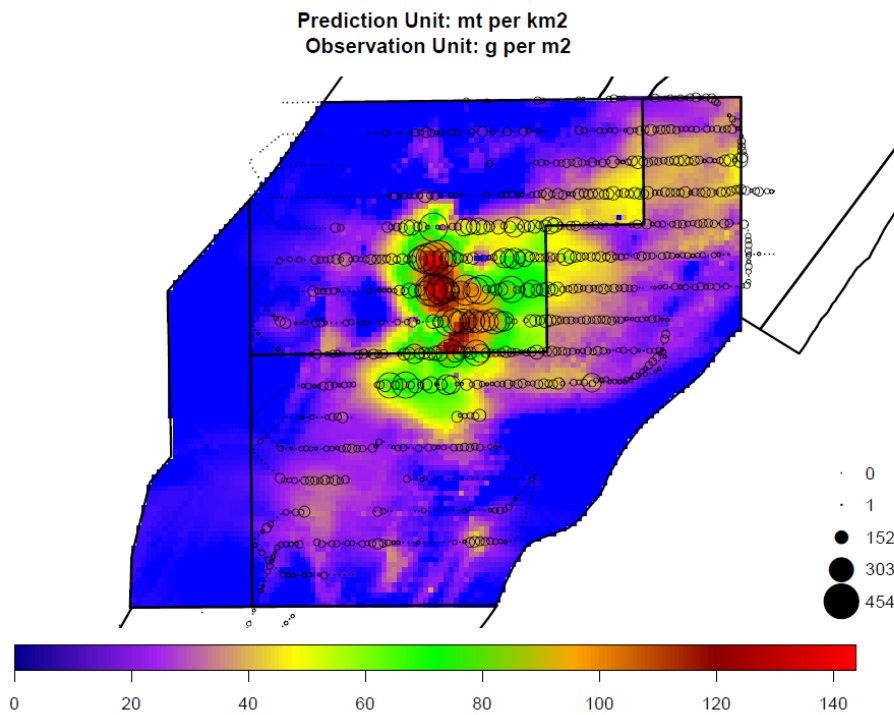


Figure 10 - Length frequency from HabCam Group's 2016 Elephant Trunk survey.

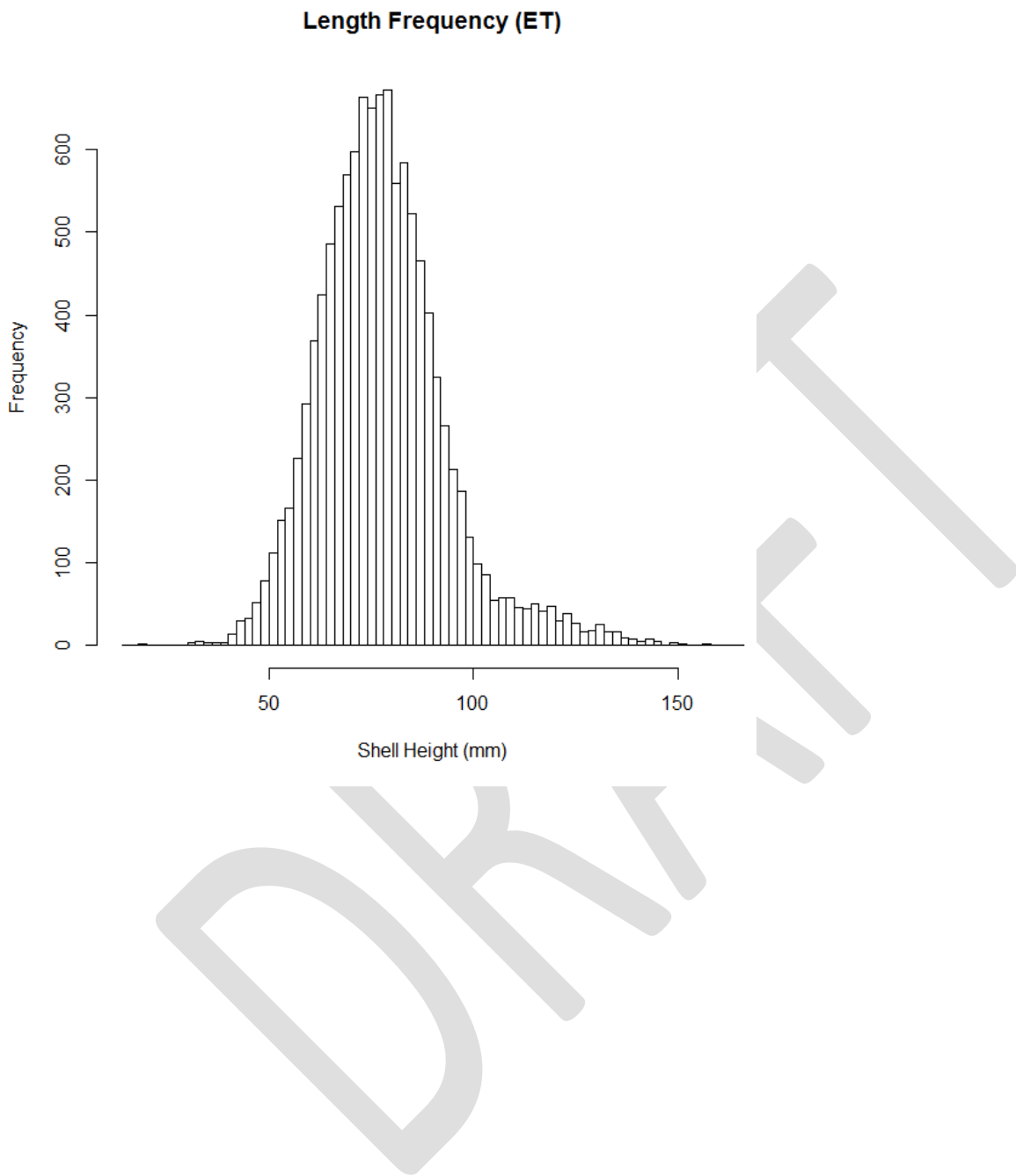


Figure 11 - Length Frequencies from VIMS survey - Mid-Atlantic

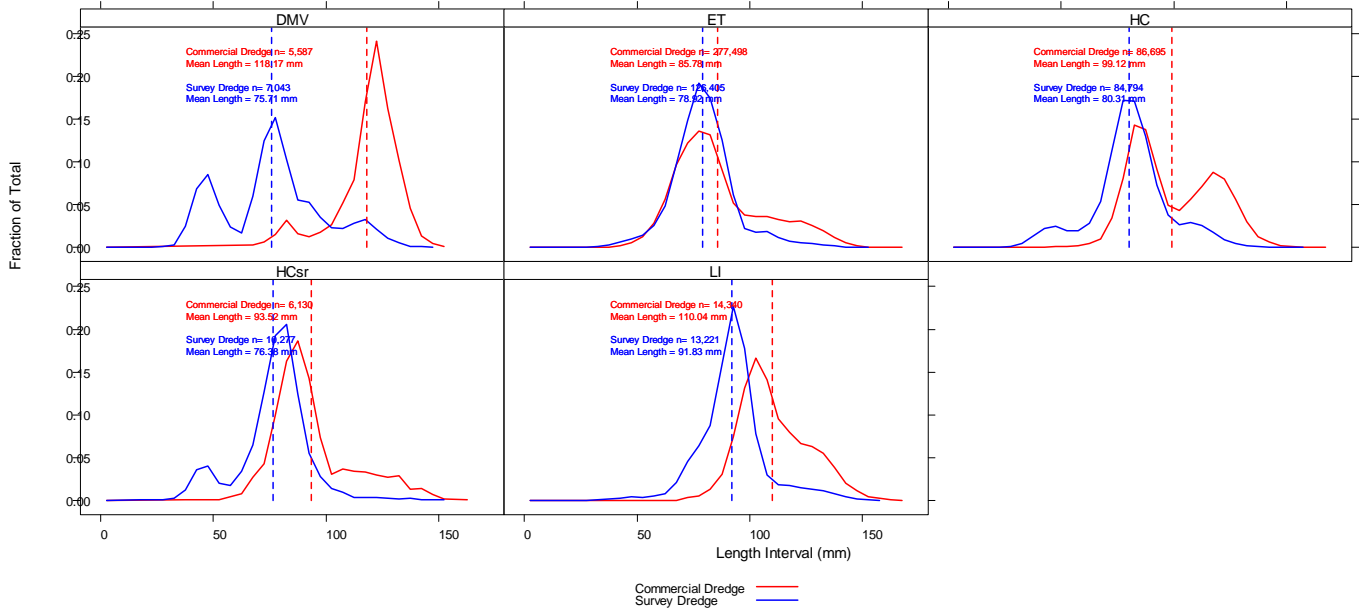


Figure 12 - Length frequencies of CAII S and CAII S Ext from VIMS dredge surveys.

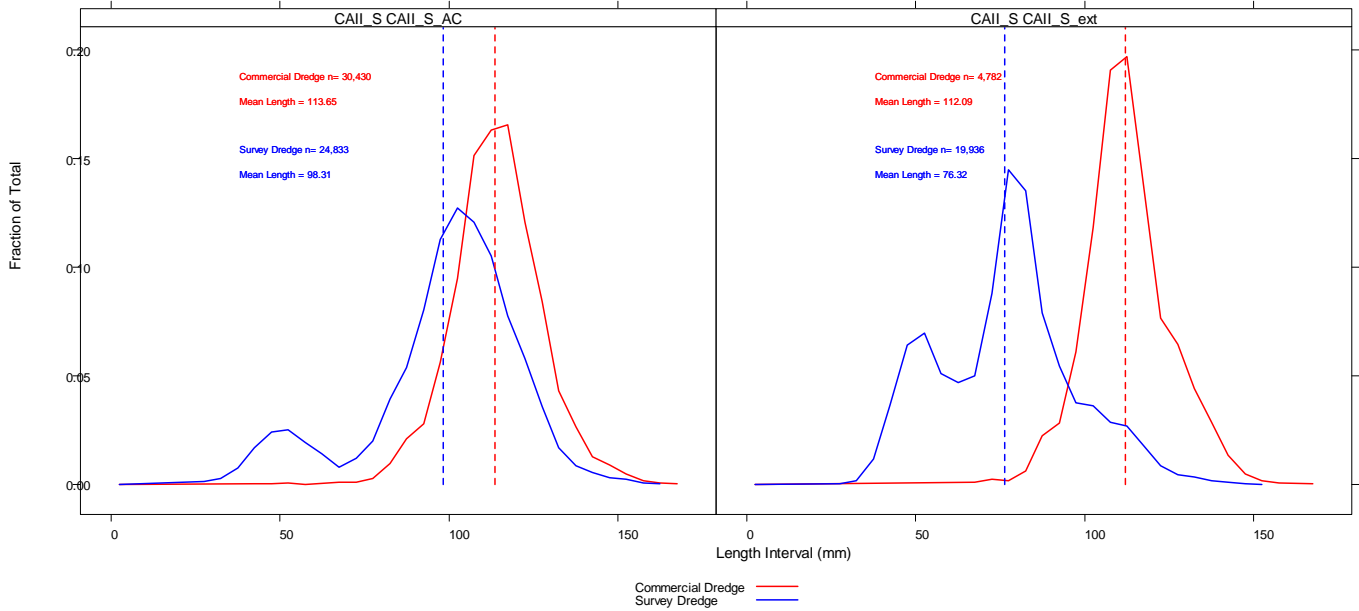


Figure 13 - Length frequencies of NLS areas from VIMS dredge surveys.

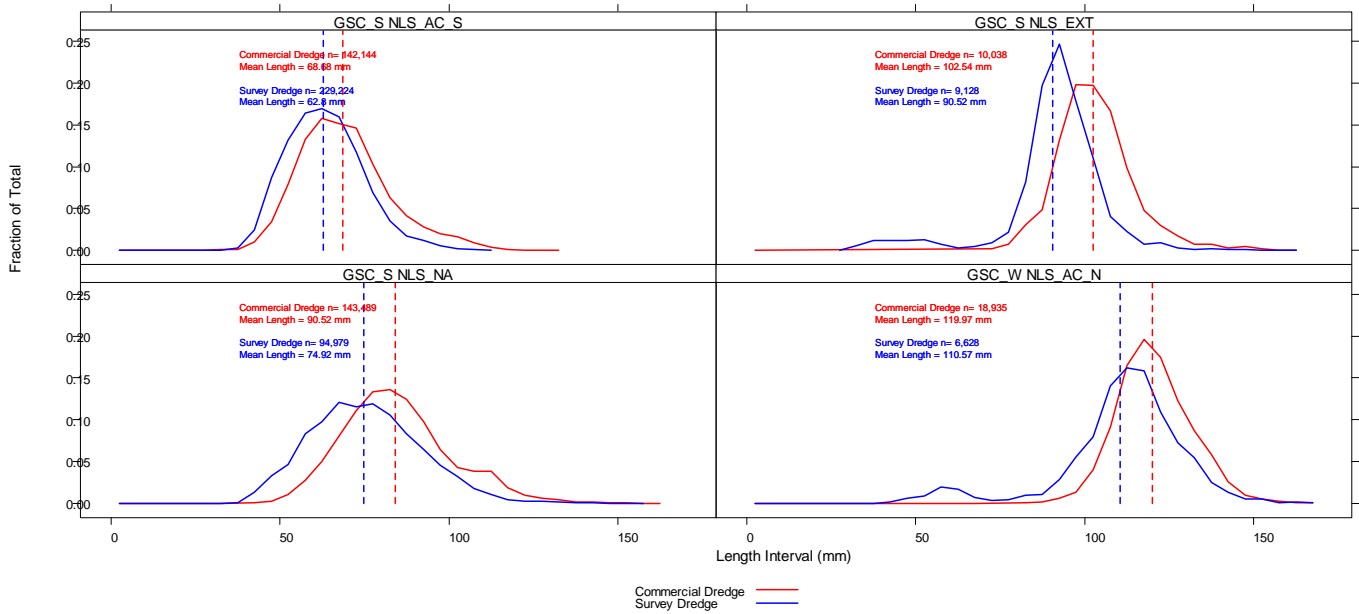


Figure 14 - 2016 ME DMR NGOM Survey Areas.

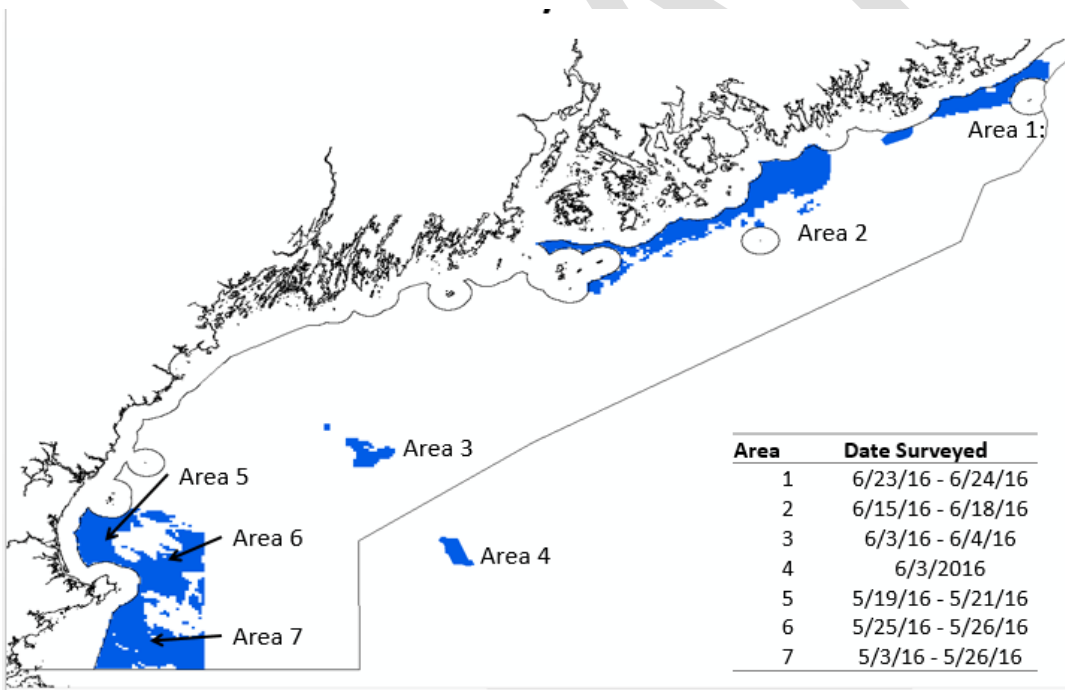


Figure 15 - 2016 ME DMR NGOM survey - estimates of harvestable biomass from each survey area.

