# New England Fishery Management Council Scallop Survey Working Group

**November 17, 2021** 

The meeting will begin at 9:00 a.m.

If you are having any problems participating, please email Sam Asci <a href="mailto:sasci@nefmc.org">sasci@nefmc.org</a> or call Cate O'Keefe at 978-766-0536

# Instructions for GoToTraining Remote Participation

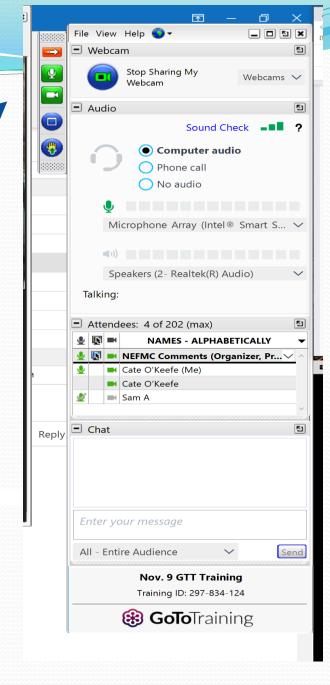
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## Using Computer Video/Audio

- Similar to GoToWebinar

(Once you have joined GoToTraining)

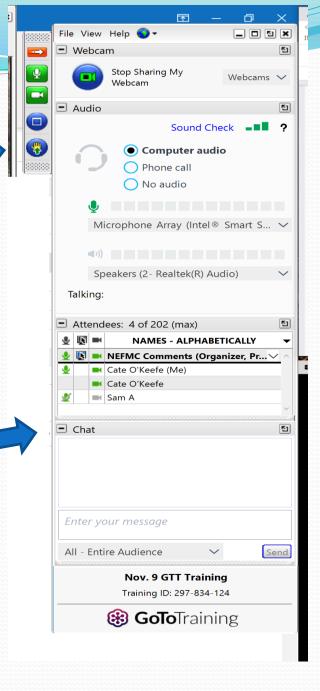
- Locate the microphone
  - Allows you to mute/unmute
- Locate the camera
  - Please share webcam for duration of meeting



# Raising your hand

- Use the "Raise hand" button
  - Click again when you are done speaking to lower your hand

- You can use the "Chat" for technical issues or questions



# Meeting Agenda - November 17, 2021

9:00am Agenda Review and Roll Call

9:20 Update on SSWG Progress

• 9:30 TOR 2 – Scallop Survey Guiding Principles

• 10:30 Break

• **10:45** TOR 2 – Scallop Survey Coordination

• 12:05pm Lunch Break

• 1:00 Sub-Group Work Session (data, wind, assessment)

SSWG Discussion of Sub-Group Work/Public Comments

• 3:00 Break

• 2:00

• 3:10 Updates on Parallel Projects

• 3:30 SSWG Work Plan, Tasking, Meeting Schedule

• 4:00 Adjourn

### **Public Comment**

Public comments will be taken as time allows and can be submitted to the Council (<a href="mailto:comments@nefmc.org">comments@nefmc.org</a>) or Cate O'Keefe (<a href="mailto:okeefe@fisheryapps.com">okeefe@fisheryapps.com</a>) anytime

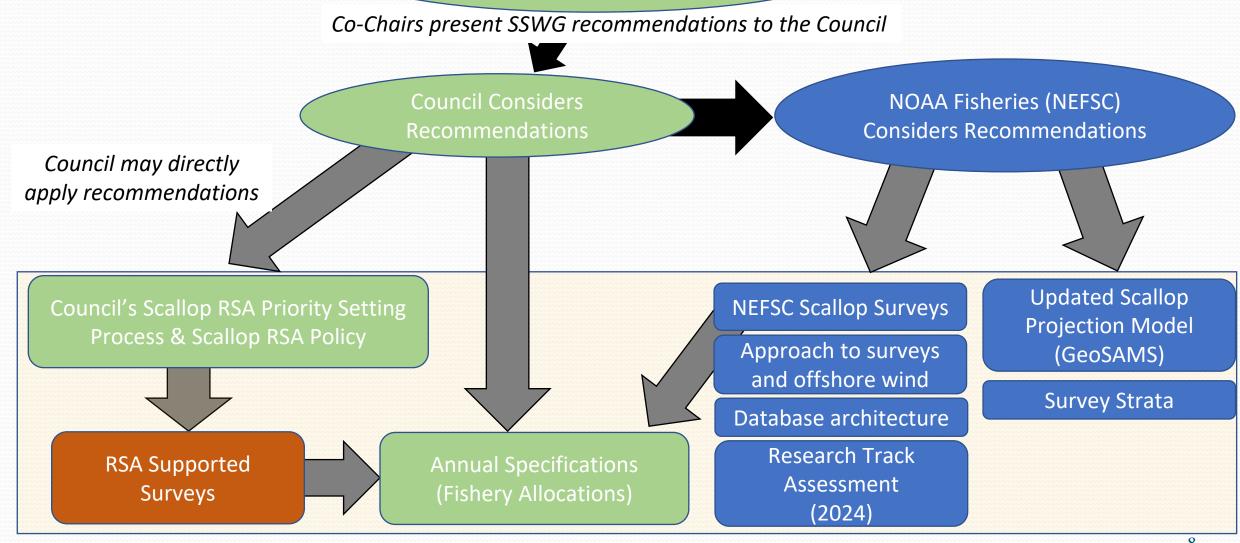
Please use the Hand Raise function and wait to be called

Submissions in the Question Box will be compiled post-meeting



## SSWG Recommendations Roadmap

Scallop Survey Working Group (Convened by the Council)



## **SSWG** Timeline

Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Jan-Mar	Apr-Jun/Jul
Form SSWG, Hire Contractor	1st Meeting	Sub-Group Work and 2nd Meeting	Sub-Group Work and 3rd Meeting	Sub-Group Work and 4th Meeting (2-day)	5th Meeting, Final Recommendations, Final Report

- August October 2021:
  - 2021 survey data submitted, compiled by PDT, development of FY2022 management action
    - Consider process and new information about surveys
  - 2022-2023 RSA Request for Proposals
    - Submission deadline Oct. 22
  - NEFSC continue and initiate parallel projects
    - NEFSC Shellfish Survey Re-stratification
    - GeoSAMS Projection Model
    - Impacts from wind development on NEFSC surveys
    - RSA Scallop Assessment Project

## SSWG July Meeting Reminder

April – November 2021

Assess current system

- Coverage, intensity, frequency
- Data topics
- Wind impacts
- Auto detection
- RSA
- Assessment needs
- Two SSWG meetings
- Sub-groups
- Interviews
- Questionnaire

November 2021 – February 2022

Describe new approaches and processes



- Coordination
- Data follow-on process
- Wind alternatives
- Auto detection Best Practices
- Assessment catalogue
- Two SSWG meetings
- Correspondence
- Questionnaires
- Overlap with identifying strategies to implement

November 2021 – April 2022

Strategies to implement recommendations

- SSWG agreement
- Recommendation audience
- Implementation timing
- Consideration of possible outcomes
- 1 SSWG meeting (?)
- Correspondence
- Report review
- Overlap with describing new approaches 10

# November Objectives and Deliverables

- Develop "Guiding Principles" for scallop survey
  - DRAFT Scallop Survey Guiding Principles recommendations
- Identify survey coordination strategies
  - DRAFT outline of survey coordination strategies
- Continue work related to TORs 2, 3, and 4 through sub-group work sessions
  - Sub-group reports on work progress (data topics, wind impacts, assessment needs)
- Review SSWG work plan and identify next steps
  - Updated SSWG Work Plan, tasking, and meeting schedule

## **Term of Reference #2**

- Describe and assess a coordinated strategy for sea scallop resource assessment surveys and investigate opportunities and methods for implementation. Address each of the following areas:
  - Spatial coverage, including the Northern Gulf of Maine;
  - Sampling frequency and intensity within and between surveys;
  - Data standardization, delivery, access, and storage;
  - Automated scallop detection;
  - RSA survey priority setting process and long-term planning.
- This TOR will include, but not be limited to, the following items for each identified topic:
  - Assess the strengths and weaknesses of the current scallop survey system, including uncertainties
    and gaps in data outputs to meet objectives and needs of science and management.
  - Describe new or alternative approaches for optimizing the survey system.
  - Investigate opportunities and methods to implement strategies across all survey groups, including the new and alternative approaches.

## Scallop Survey Guiding Principles

- How can we ensure that required data products are collected and available (guiding principles)?
- What survey data products are required to support:
  - Scallop stock assessment (stock status)
  - Scallop management (specifications)
- Consider the following topics to develop a set of "guiding principles" for the scallop survey system:
  - Survey coverage priority areas, exploration areas, Gulf of Maine
  - Types of samples counts, length frequencies, meat and gonad weights, etc.
  - Sampling intensity broad scale and fine scale sampling, annotation rate
  - Sampling efficiency high- and low-density areas, survey catch efficiency
  - Data time series
  - Funding stability and long-term planning for survey groups

## Guiding Principles - Recommendations

SSWG discussion – recommendations and action items

# New England Fishery Management Council Scallop Survey Working Group

**November 17, 2021** 

The Working Group is on a short break and will resume at 10:45 a.m.

If you are having any problems participating, please email Sam Asci <a href="mailto:sasci@nefmc.org">sasci@nefmc.org</a> or call Cate O'Keefe at 978-766-0536

## **Scallop Survey Coordination**

• How can scallop surveys be better coordinated?

- Consider the following items to develop a survey coordination strategy:
  - NEFSC survey planning process
  - RSA survey planning process
  - Data collection and analysis standardization
  - Short and long-term planning
  - Implementation strategies
  - Funding stability and long-term planning for survey groups

## **NEFSC Survey Overview**

- Since 2008, the NEFSC scallop survey has been conducted aboard the UNOLS vessel Hugh R Sharp (UDel).
- Why the Sharp?
  - Size/Endurance/Berthing
  - Accommodates dredge and HabCam sampling
  - Reliability
- The survey is done annually, normally in May/June. We currently target a minimum of 30-35 sea days/yr.
- Our contract with the Sharp typically consists of a base year plus 4 option years.
- 2021 is the final year of our current contract. We plan to initiate a new contract that will begin in 2022.



## **NEFSC Survey Overview**

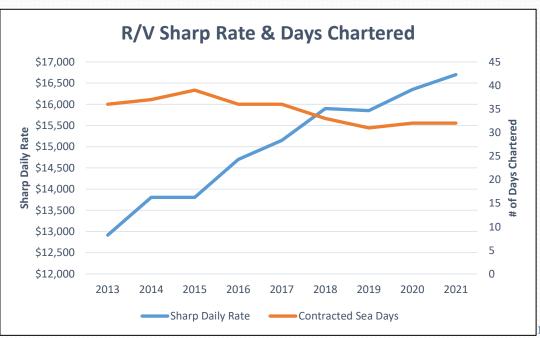
#### **Budget**

Annual NEFSC base funding has remained flat while operating costs have increased.
 This has impacted the amount of funding available for contract vessel sea days. The cost of a sea day aboard the Sharp has also increased over the years.

The length of our survey has varied slightly from year to year due to budget. We

currently target 30-35 DAS for scallop.

 Base NEFSC funding supports a portion of scallop survey sea days each year. As costs have increased, we have requested additional funds from HQ to reach our target # of days.



## **NEFSC Survey Overview**

 To make the most efficient use of our sea days, we focus on sampling in areas that are not being extensively covered by other survey programs.

 We conduct both dredge and HabCam operations while at sea. In a normal year, image annotations are largely done by staff at sea.





 Dredge stations and HabCam tracks are planned prior to sailing, and adjustments are often made at sea depending on survey progress.

**Questions?** 



#### Research Set Asides (RSA)



Ryan Silva Cooperative Research Liaison Sustainable Fisheries Division, Greater Atlantic Region







## Steps that inform survey coverage

- RSA priorities
- Submissions
- Technical review panel
- Management review panel
- NEFSC survey program consultation
- Initial selection and proposal negotiations



### **Proposal Review and Selection**

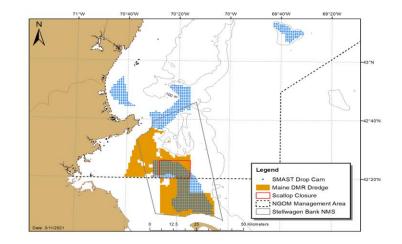
- Survey panel technical review
  - Non-consensus panel meeting
  - Scores and comments
  - 5 evaluation criteria
- Management Panel review
  - Non-consensus panel meeting
  - Funding recommendations
- Review events carry equal weight
- Proposals and review events are confidential

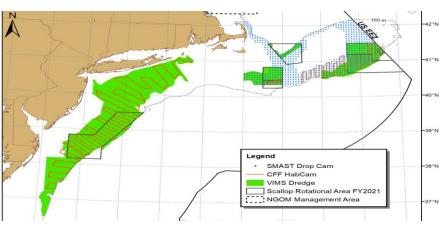
#### NOAA FISHERIES SERVICE



## **Proposal Review and Selection**

- Common technical reviewer focus
  - Survey design
  - Analysis methods
- Common management panelist feedback
  - Survey location
  - Cost
- Proposals are assessed on review scores and recommendations
- Consultation with NEFSC survey program
- Project selection and negotiations
  - Area adjustments less or more









## **Pre-award survey negotiations**

- This is where scallop RSA survey coordination occurs
- Proposal modifications are in response to
  - reviewer scores and comments
  - -survey technology and location
  - —logistics and proximity
- How often are proposals modified?
- Administrative process for modifying a grant application



## **Parting thoughts**

- Competitive grant programs for scallop surveys Effective; some inefficiencies;
   room for improvement.
- Survey coordination occurs at the pre-award stage (and sometimes post award)
- How much is enough? Balancing data needs, uncertainty, diminishing returns, and industry fishing opportunities
- Would longer term grants improve coordination?
- Capable survey programs, inter-organizational coordination, broad buy in, ample resources, make RSA scallop surveys successful.

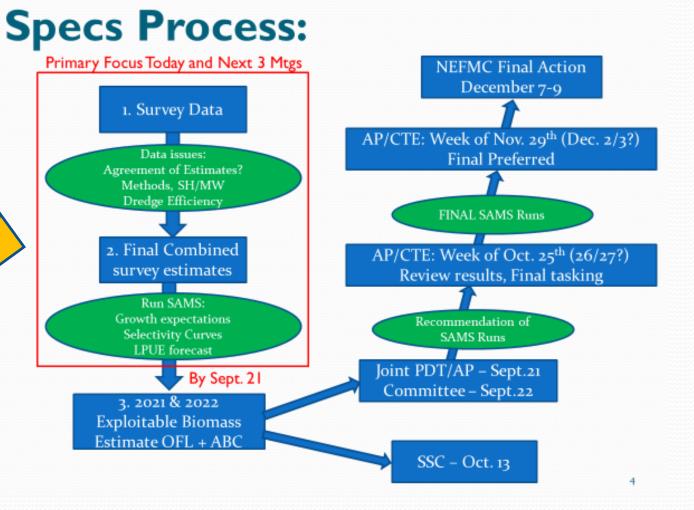
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## Survey Data Compilation: PDT Process

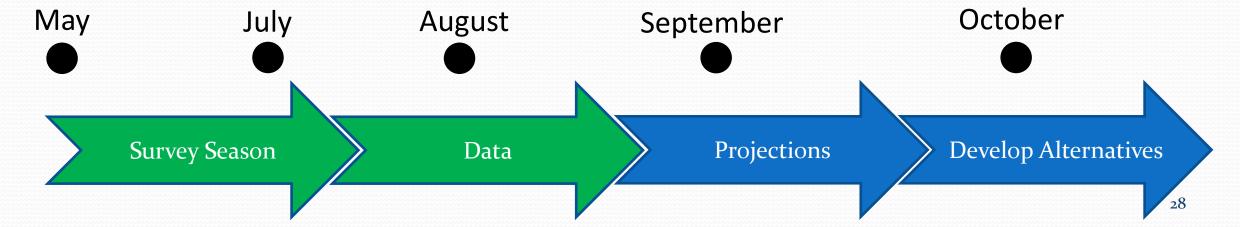
- Goal: Setting Specifications for the next fishing year (December)
- Primary Objective: Final combined survey estimates by early September
  - Coordinate on data delivery, compilation, standardization



## Data Delivery, Standardization, Compilation

- Process has evolved over time 

   More data streams and more survey partners participating in this process.
- Align delivery of data to facilitate review by PDT in late August. Need to accommodate different survey processes (dredge vs. optical).
- Standardize how data is submitted (ex: SH/MW equations, template) to allow comparison at first public review ("Two-Day PDT Meeting in Falmouth").
- Pre-work on known issues (ex: dredge efficiency, SH/MW slow growing scallops)



## **Examples of Standardization**

- Data to NEFSC and Council Staff
- Biomass estimates for each SAMS area
- Clarification of size cutoffs & SH/MW for biomass estimates
- Bins to define pre-recruits, recruits, and adults
- "Short report" template for data delivery to PDT

### **SH/MW** equations for **NLS**

 Proposal for discussion: Continue to use updated VIMS data, small difference between VIMS and benchmark equations.



 The NLS-S was the only SAMS area in the NLS surveyed by CFF in 2021.

 SAMS AREA
 SARC 65 SH/MW (MT)
 VIMS SH/MW 2016-2021 (MT)

 NLS-South
 20,347.2
 18,848.8



 SAMS Area
 BmsMT (SARC 65)
 BmsMT (VIMS)
 %Diff

 NLS-South
 19995
 17333
 13.32





	SARC 65 SH/MW	VIMS SH/MW 2016-2021
NLS-South	9,863.43	9,375.19

2

## **Data Delivery - Recent Coordination**

#### **Doc.9 - Draft COVID Guiding Principals**

- Use all available data
- Prioritization of key areas
- Acknowledgement of varying organizational and institutional constraints
- Information sharing earlier in the process

#### Detailed Updates from 2020 Scallop Survey Groups

#### Virginia Institute of Marine Science: Dredge Survey

- 5. VIMS is scheduled to survey the Mid-Atlantic, NLS, CAI, CAII. This is expected to take three survey trips and a total of ~35 sea days to complete. The original plan was to begin survey during the first week of May and finish by early July.
- 6. Constraints at the state and institutional level:
  - a. State: VA has limited travel, and there is a stay at home order in effect until June 11th. June 12th is overly optimistic to start field work.
  - b. VIMS: There is overarching institutional guidance for conducting research during the pandemic. There may be some flexibility to complete this fieldwork and VIMS is currently exploring how the survey can be conducted differently to comply with state/VIMS mandates. For example, looking into limiting the number of crew and researchers on the vessel.
- 7. VIMS is awaiting further guidance from the state. Planning and other preparations are moving ahead, but specifics on how to move the survey forward is currently unknown.

#### SMAST: Drop Camera Survey

- 8. The drop camera was awarded to survey in the NLS, MAAA, CAII, and the Gulf of Maine. The original plan was to begin surveys during the first week of May and finish by the end of June.
- SMAST has developed a COVID-19 sailing plan based on CDC and state guidelines that includes
  the testing of the crew and researchers before sailing, and taking daily temperature readings;
  however, the UMass Dartmouth public health office has not authorized the survey work at this
  time.
- 10. The Drop Camera surveys are generally 5-7 day cruises. SMAST explained that the cruises could be extended to complete more work (~2 weeks) and limit the overall number of cruises needed.
- 11. Arrangements have been made to allow for annotations to be completed at home vs. in a shared lab space.
- 12. SMAST expects that additional guidelines from the Commonwealth of Massachusetts re: COVID-19 will be available around May 18<sup>th</sup>. Until this time, the group is in a holding pattern, similar to VIMS. After the guidelines are available, SMAST expects that they would have a better sense of what work might be able to be completed.

## Data Delivery - In-Season Changes



New England Fishery Management Council

50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116 John F. Quinn, J.D., Ph.D., Chairman | Thomas A. Nies, Executive Director

July 29, 2020

Dr. Jonathan Hare Science and Research Director Northeast Fisheries Science Center 166 Water Street Woods Hole, MA 02543

Dear Jon:

The Scallop PDT met on July 28<sup>th</sup>, 2020 and discussed the outlook for 2020 survey coverage. With the R/V Sharp not sailing this season, there will be gaps in survey coverage of the scallop resource. The PDT evaluated data needs for the 2021/2022 specifications cycle, and recommends that the following areas be surveyed in 2020, if possible (ranked):

- Dredge survey of the Great South Channel SAMS area.
  - a. Rationale: There are multiple reports of scallop seed in this area. It is important to collect biological data for the year classes present in this area. The GSC is an important area for the fishery, particularly if a larger proportion of landings come from open areas in the coming years.
- Optical surveys in open areas of the Mid-Atlantic, particularly the Long Island and New York Bight SAMS areas.
  - a. Rationale: There are reports of scallop recruitment in open areas of the Mid-Atlantic. With fewer access area trips expected in 2021, a larger proportion of landings are likely to come from the open bottom over the next two fishing years. Optical data for these areas will be used with dredge survey data for projections.

Based on this input, I recommend that the Center continue to work with survey groups funded through the 2020/2021 Scallop RSA (i.e., CFF, SMAST, and VIMS) to survey the areas recommended by the Scallop PDT. We appreciate the work that the Center has already done to expand coverage of the SMAST drop camera system to the Great South Channel SAMS area, and hope that further arrangements can be made with RSA survey partners to address the above recommendations.

Thank you for considering this input. Please contact me if you have questions.

Sincerely,

Thomas A. Nies

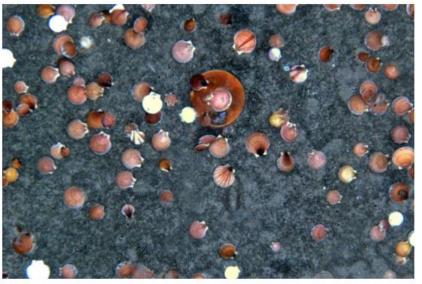
Thomas A. Nies Executive Director NEWS

### Sea Scallop Camera-Based Survey Expanded on Georges Bank

July 16, 2019

A planned camera-based survey of sea scallops on Georges Bank has been expanded to include more area

Feature Story | New England/Mid-Atlantic



The University of Massachusetts, Dartmouth, School for Marine Science and Technology 2 will add the Northern Flank and Closed Area II North to this year's planned survey work around Georges Bank to track sea scallop aggregations.

The survey, which uses a drop-camera array, is also covering the Great South Channel, Nantucket Lightship, and the Closed Area I Access Area.

"Taking on this additional work while in the middle of a busy survey season exemplifies the School for Marine Science and Technology's dedication to supporting the scallop fishery," said Jon Hare, director of NOAA Fisheries' Northeast Fisheries Science Center. "It's also a great example of the importance of our strong partnerships in the region that provide science to support management of this valuable.

#### More Information

- > 2019 Northeast Sea Scallop Survey
- > 2019-2020 Sea Scallop Research Set-Aside Award Announced
- More About the Research Set-Aside Programs

#### Recent News

FEATURE STORY

\$10 Million Available for Great Lakes Habitat Restoration New England/Mid-Atlantic



#### FEATURE STORY

6 Cool Northeast Aquaculture Science Collaborations to Follow New England/Mid-Atlantic



#### FEATURE STORY

A Look at Chesapeake Bay Oyster Restoration New England/Mid-Atlantic

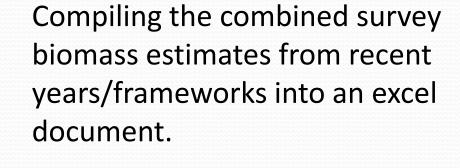


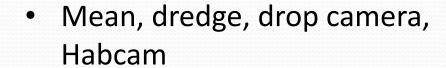
#### More News >

# Survey Data Compilation Project (2021)

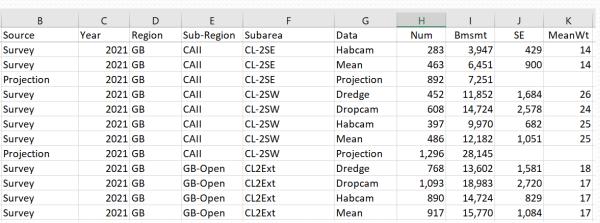
Combined Survey Biomass Estimates

			Dredge				D	ropC	am 🚪		н	abca	m		Mean			F33 F	rojectio	ons
Region	n Subarea	Num	Brismt		MeanWt	Num	Bmsmt	SE	MeanWt	Num	Bmsmt	5E	vleanWt.	Num	Bmsmt	SE	WeanWt.	Num		<b>%Chan</b> i
GB	CLIACC					65	1254	634	19.2					65	1254	634	19.2	78	896	40.0%
GB	CL1-Sliver	37.8	792	55	20.0	131	1125	382	8.6	113.0	1387	224	12.3	93.9	1101	149	11.7	76	878	25.4%
GB	CL-2(N)	177.7	4958	1418	27.9	246	1,895	727	14.1	282.0	7371	103	26.1	235.2	4738	532	20.1	335	5375	-11.89
GB	CL-2SE	353.7	5942	409	16.7	753	9464	2634	12.6	283	3947	429	13.9	463.2	6451	900	13.9	892	7251	-11.09
GB	CL-2SW	452.4	11852	1684	26.3	608	14724	2578	24.2	397	9970	682	25.1	485.8	12182	1051	25.1	1296	28145	-56.79
GB	CL2Ext	767.8	13602	1581	18.0	1093	18983	2720	17.4	890	14724	829	16.6	916.9	15770	1084	17.2	1279	17984	-12.39
GB	SF	741.3	13125	1574	17.7	734	11516	2829	15.7	707	11398	729	16.1	727.4	12013	1106	16.5	876	7149	68.0%
GB	NLSAccN.	27.9	886	85	30.8	83	1.830	926	22.0					55.5	1358	465	24.5	128	2019	-32.79
GB	NLSAccS-Deep	1953	22546	6276	11.5	2012	23009	9662	13.1	1285	17,333	728	13.5	1750.0	20963	3848	12.0	2551	31835	-34.29
GB .	NLS-W	8.1	228	50	28.0	10	202	1,658	20.4	17	400	171	23.9	11.7	277	556	23.6	38	364	-24.09
GB	NF	117.8	1710	639	14.3	94.0	1,886	727	14.1	296.0	4295	361	14.5	169.3	2630	344	15.5	203	1806	45.6%
GB	GSC-N	222.0	3936	924	17.7	246	5716	1269	23.2	141.0	3024	394	21.5	203.0	4225	539	20.8	460	3154	34.0%
GB	GSC-M	54.2	1091	167	20.1	190	4872	1200	25.7					122.1	2981	606	24.4	277	2225	34.0%
GB	GSC-S	16.0	353	156	22.1	103	1775	553	17.2	66.0	1396	21	21.1	61.7	1175	192	19.0	140	877	34.0%
GB	TOTAL	4929.7	81021	7121	16.4	6368	98242	1144	15.4	4477	75245	1665	16.8	5361	87118	4601	16.3	8628	109958	-20.89
MAB	ВІ	93.0	1564	274	17.1					32	815	66	25.5	62.5	1190	141	19.0	141	1294	-8.1%
MAB	ш	436.5	8302	367	19.3					613	13463	269	22.0	524.8	10883	228	20.7	1362	11454	-5.0%
MAB	NYB	414.8	6043	446	14.4					332	4919	851	14.8	373.4	5481	480	14.7	488	6234	-12.19
MAB	MA Inshore	34.0	513	44	15.2					52	1479	130	28.5	43.0	996	69	23.2	60	555	79.6%
MAB	HCSAA	89.4	2019	94	22.8					206	4453	239	21.6	147.7	3236	128	21.9	475	5507	-41.29
MAB	ET Open	81.0	1814	71	22.7					97	1664	272	17.2	89.0	1739	141	19.5	510	9526	-81.79
MAB	ET Flex	33.1	812	58	27.1					32	677	190	21.1	32.6	745	99	22.9	400	5884	-87.39
MAB	DMV	17.5	115	15	7.2					13	163	80	12.3	17.5	115	41	6.6	322	719	-84,09
MAB	VIR	3.6	16	2	4.6									3.6	16	2	4.4	61	145	-89.09
MAB	TOTAL	1203	21198	654	17.6					1377	27633	996	20	1294	24400	596	18.9	3819	41319	-40.99
NGON	1 Stellwagen AOI	86	1427	668	21	112	1508	501	13.4					99.0	1468	418	14.8			
NGON	1 Jeffreys					15	268	48	17.7					15	268	48	17.7			
NGON	/i Platts					7	108	24	14.7					7	108	24	14.7			
NGON	n lpswich					10.	143	28	14.7					10	143	28	14.7			
NGON	TOTAL	86	1427	668	21	144.0	2027	505	14.1					131.0	1987	422	15.2			
TOTAL	TOTAL	6219	103646	7182	16.7	6512	100269	11455	15.4	5854	102878	1940	17.6	6786	113504	4659	16.7	12447	151277	-25.09



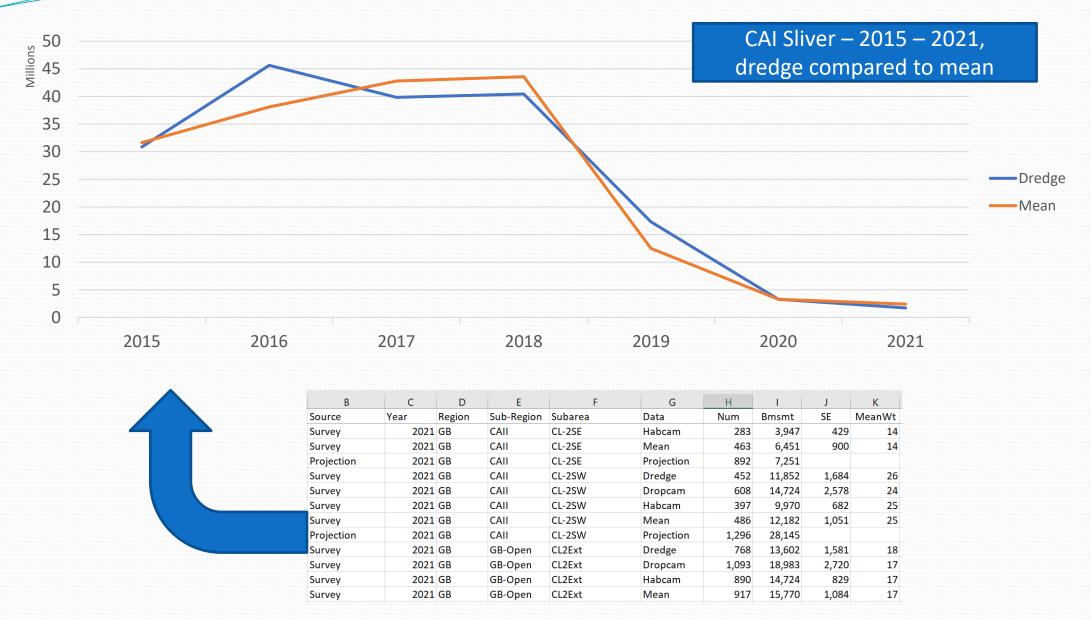


2015 - 2021





# Survey Data Compilation Project (2021)

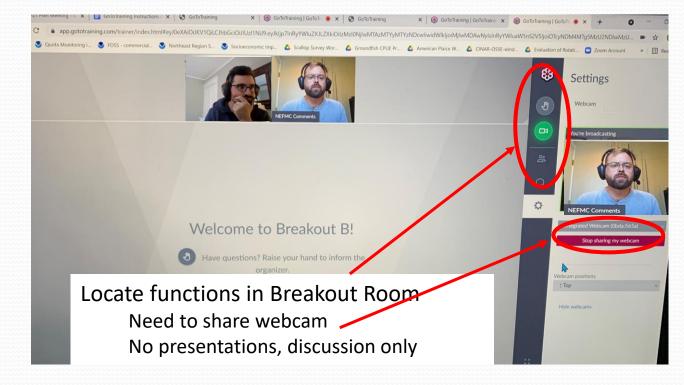


## **Survey Coordination - Proposals**

SSWG discussion – proposals and action items

## Sub-Groups Breakout Work Session

- SSWG members will be placed into breakout rooms during the lunch break
  - Return from lunch directly into work session
  - Internet browser (Google Chrome)
    - not desktop application
- Facilitators
  - Data Topics Jonathon
  - Wind Impacts Jessica
  - Assessment Needs Cate
- 1 hour work session with prompt questions
- Sub-groups report back to SSWG
- Request for volunteers to assist with notes



- End of breakout session
  - Close web browser tab to rejoin main session of GoToTraining
- Public quick verbal poll for breakout room request
  - No public comment during work session, opportunity for public comment during plenary discussion

# New England Fishery Management Council Scallop Survey Working Group

**November 17, 2021** 

The Working Group is on lunch break and will resume for a work session at 1:00 p.m.

If you are having any problems participating, please email Sam Asci <a href="mailto:sasci@nefmc.org">sasci@nefmc.org</a> or call Cate O'Keefe at 978-766-0536

## Sub-Groups Breakout Results

- Reports from breakout group leads
  - Data topics
  - Wind impacts
  - Assessment needs

# New England Fishery Management Council Scallop Survey Working Group

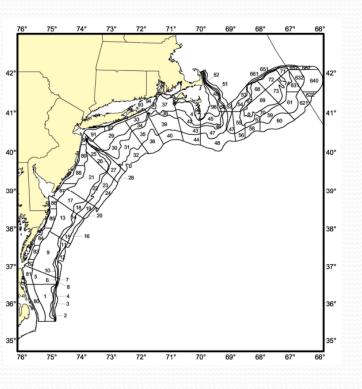
**November 17, 2021** 

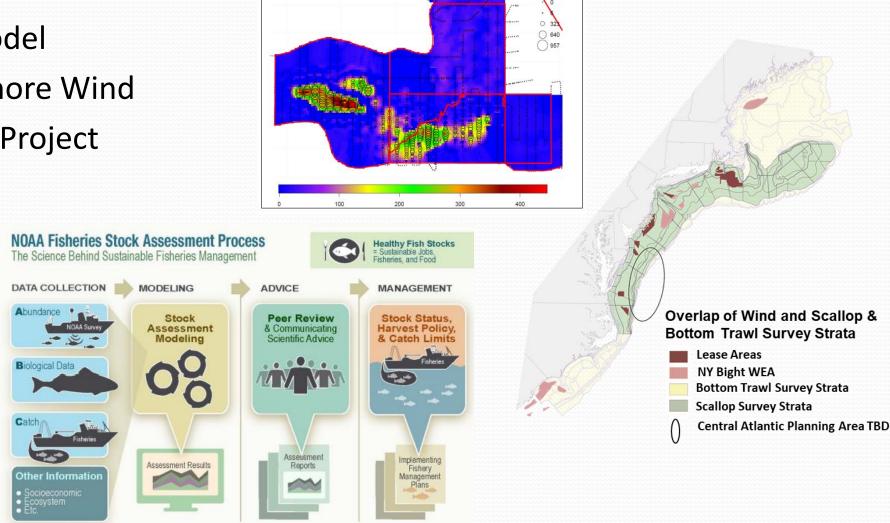
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## **Updates on Parallel Projects**

- NEFSC Shellfish Survey Re-stratification
- GeoSAMS Projection Model
- NEFSC Surveys and Offshore Wind
- RSA Scallop Assessment Project





## SSWG Work Plan

- Incremental approach to TORs
  - Developing new/alternative methods
  - Consider strategies for implementation

#### November – February

•	Begin	drafting	recommend	dations
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Oct-Dec	Jan-Mar	Apr-Jun/Jul
Sub-Group Work and 3rd Meeting	Sub-Group Work and 4th Meeting (2-day)	5th Meeting, Final Recommendations, Final Report

- Work through correspondence
- SSWG review materials to discuss in Feb

### Meeting schedule

- February/Spring 2022 Possible in-person, Consider 2-day workshop format
  - Advance recommendations and implementation strategies
- Spring/June 2022 Final recommendations and implementation strategies

## **Deliverables for February**

- ▼TOR #1 Describe current system
  - Will be completed
- TOR #2 Describe and assess a coordinated strategy for scallop surveys and investigate opportunities and methods for implementation
  - DRAFT Scallop Survey Guiding Principles and Coordination Approach
    - Coverage, Intensity, Frequency, Data Standardization, Delivery, Storage, Access, RSA Coordination/Planning
      - Results from meetings to date draft recommendations with SSWG review
    - Automated Detection
      - Initiate sub-group assessment of current system; initial ideas for new approaches and processes
- TOR #3 Identify methods, tools, designs to assess changing resource wind installations
  - DRAFT Recommendations for new strategies/processes, and strategies for implementation
- TOR #4 Identify and catalogue data needed to support future assessments/projections, process for modifying survey to collect needed data
  - DRAFT Catalogue of data needs, recommendations similar to TOR #2

# Thank You for Participating

- Questions/comments/issues:
  - Co-Chairs:
    - Bill DuPaul (dupaul@vims.edu)
    - Pete Chase (<u>peter.chase@noaa.gov</u>)

- Facilitators:
  - Cate O'Keefe (okeefe@fisheryapps.com) and Jessica Joyce