

**Review of Sea Scallop Survey Methodologies and
Their Integration for Stock Assessment and Fishery Management**
March 17-19, 2015, Fairfield Inn and Suites, 185 MacArthur Dr., New Bedford, Mass.

DRAFT AGENDA* (version: March 3, 2015)

TOPIC	PRESENTER(S)	RAPPORTEUR
<u>Tuesday, March 17 (DAY 1)</u>		
8:45 – 9 AM	Welcome	
9 – 9:15		
Agenda	J.-J. Maguire, Chair	TBD
Conduct of Meeting		
<u>Address TORs 1-4</u>		
9:15 – 9:30	Introduction (Paul Rago, NEFSC)	TBD
Method: DREDGES		
9:30 – 10:30	NEFSC (Dvora Hart)	TBD
10:30 – 11:30	VIMS (Dave Rudders)	TBD
11:30 – 11:40	Public Comments about Dredges	
11:40 – 11:50	Break	
Method: DROP CAMERA		
11:50 – 12:50	SMAST (Kevin Stokesbury)	TBD
12:50 – 1	Public Comments about Drop Camera	
1 - 2:10	Lunch	
Method: HabCam		
2:10 – 3:10	NEFSC (D. Hart)	TBD
3:10 - 3:20	Break	
3:20 – 4:20	WHOI (Scott. Gallager)	TBD
4:20 – 5:20	Arnie’s Fisheries (Richard Taylor)	TBD
5:20 – 5:30	Public Comments about HabCam	

TOPIC

PRESENTER(S)

RAPPORTEUR

Wednesday, March 18 (Day 2)

TORs 1 – 4 (cont.)

Method: HabCam (cont.)

8:30 – 10	Statistical Estimation and Survey Design (NEFSC, B. Shank, Jui-Han Chang)	TBD
10 – 10:10	Public Comments about HabCam: Statistics/Design	
10:10 – 10:25	Break	

Address TORs 5 and 7

10:25 – 10:40	Overview/Relation to Management (Deirdre Boelke, NEFMC)	TBD
10:40 – 11:40	NEFSC (D. Hart, B. Shank)	TBD
11:40 – 12:40	Lunch	
12:40 – 1:40	SMAST (K. Stokesbury)	TBD
1:40 – 2:40	VIMS (D. Rudders)	TBD
2:40 – 2:50	Break	
2:50 – 3:50	WHOI (S. Gallager)	TBD
3:50 – 4:20	Arnie's Fisheries (R. Taylor)	TBD
4:20 – 4:30	Public Comments about TORs 5 and 7	

Address TORS 6 and 8

4:30 – 4:45	NEFSC (D. Hart)	TBD
4:45 – 5	SMAST (K. Stokesbury)	TBD
5 – 5:10	Public Comments about TORs 6 and 8	

Thursday, March 19 (Day 3)

TORS 6 and 8 (cont.)

8:30 – 8:45	VIMS (D. Rudders)	TBD
8:45 – 9	WHOI (S. Gallager)	TBD
9 – 9:15	Arnie’s Fisheries (R. Taylor)	TBD
9:15 – 10:15	Discussion (All presenters; w/ Chair leading)	
10:15 – 10:30	Break	
10:30 – 11:30	Discussion (cont.)	
11:30 – 11:45	Public Comments about TORs 6 and 8	
11:45 – 1	Lunch	

Wrapping Up

1 – 3	Review Key Findings	J. –J. Maguire, Chair	TBD
3 – 3:15	Break		
3:15 - 6	Drafting of Review Panel Summary Report	J. –J. Maguire, Chair	TBD

* All times are approximate, and may be changed at the discretion of the Chair. The meeting is open to the public. During scheduled “Public Comment” periods the Chair will welcome questions, clarifications, and opinions. Each person will have a 3 minute limit. The “Wrapping Up” session on Day 3 is primarily intended for the Panel to discuss and write its report. During that time, comments from the presenters and the public will be restricted to clarifications that are solicited by the Chair and Panel.

Terms of Reference

(These ToRs are to be carried out by the scientists involved with scallop survey methods and analyses. The Peer Review Panel will then address the strengths and weaknesses of the various survey approaches and survey methodologies, with a focus on these ToRs.)

1. Review the statistical design and data collection procedures for each survey system
 - a. Dredge surveys conducted on research vessels
 - b. Dredge surveys conducted on commercial vessels
 - c. SMAST video drop camera system
 - d. HabCam camera and sensor sled
2. For each survey, evaluate measurement error of observations including shell height measurement, detection of scallops, determination of live vs. dead scallops, selectivity of gear, and influence of confounding factors (*e.g.*, light, turbidity, sea state, tide etc.)
3. Review the biological sampling aspects of the surveys, including sub-sampling procedures and the ability to sample all size classes. For each survey, evaluate the utility of data to detect incoming recruitment, assess the potential ability to assess fine scale ecology (*e.g.*, Allee effect, predator-prey interactions, disturbance from fishing gear, etc.).
4. Review methods for using survey data to estimate abundance indices. Evaluate accuracy (measures of bias) of indices as estimates of absolute abundance.
5. Evaluate any proposed methods for integrating and using surveys outside of a stock assessment model for management purposes.
6. Comment on potential contribution of each survey to assessments for non-scallop species and use of data apart from assessment purposes such as characterizing species habitat, understanding sea scallop ecology, and ecosystem studies.
7. Comment on the current and/or any proposals for optimal frequency and combination of survey methods.
8. Identify future research and areas of collaboration among investigators and institutions.

Appendix to Annex 2:

In their presentations and reports for the peer review, analysts (as opposed to the peer reviewers) will cover a broad range of topics, such as:

1. Summaries of historical scallop survey indices, and their components (*e.g.*, frequency, spatial extent, data collected), from the NEFSC sea scallop survey, the SMAST video survey, relevant VIMS cooperative industry surveys, and HabCam surveys from WHOI and Arnie's Fisheries.

For each of these surveys, additional topics include survey design, objectives, methods, and any relevant changes over time.

2. Summaries of current approaches for using abundance indices in stock assessment and management models. (Stock assessment models describe the dynamics of populations over time and estimate total stock size and mortality rates. Management models are used to evaluate the short-term effects of alternative harvesting scenarios at varying degrees of spatial resolution.)
3. Summaries of procedures for data acquisition, post processing, archiving, availability to outside investigators, publication of derived products in primary literature, and use for stock assessments.