2018 Scallop Specifications

Preliminary Combined Survey Estimates (v.2)
PDT Recommendations

Scallop AP and Committee

September 13 & 14, 2018

New Bedford, MA

Version 1 – September 7, 2018

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1.0 PRELIMINARY COMBINED SURVEY BIOMASS ESTIMATES (V.2)

This in NOT the final version, and this table will be updated again.

Sheet1

		Dredge					DropCam					Habcam					Mean			
Region	Subarea	Num	Bmsmt	SE	MeanWt	Ebms	Num	Bmsmt	SE	MeanWt	Ebms	Num	Bmsmt	SE	MeanWt	Ebms	MeanNum	MeanBms	SE	MeanWt
GB	CL1ACC	26.4	1137	138	43.2	1004	82	2700	550	33	2200	31.3	763	7	24.3		46.7	1533	189	32.8
GB	CL1NA	325.0	8889	1432	26.2	5949	358	10850	2150	30	8850	349.7	14786	1869	42.3		344.3	11508	1063	33.4
GB	CL-2(N)	380.2	7461	2927	19.6	5053						131.6	3025	243	23.0		255.9	5243	1469	20.5
GB	CL-2(S)	344.3	8875	688	25.8	6165						248.5	7128	112	28.7		296.4	8001	348	27.0
GB	CL2Ext	375.2	7230	688	19.3	4434						336.1	8086	144	24.1		355.7	7658	351	21.5
GB	NLSAccN	107.7	3614	192	33.6	3267	127	3855	602	30.3	3178	115.3	3585	20	31.1		116.7	3685	211	31.6
GB	NLSAccS-Shallow	196.3	2111	426	10.8	1377	330	4120	2122	12.5	2131	393.2	4964	59	12.6		306.5	3732	722	12.2
GB	NLSAccS-Deep	1247.9	30963	935	24.8	2460	5442	40709	7596	7.5	7882	3742.0	31785	1289	8.5		3477.3	34485	2587	9.9
GB	NLS-W	798.4	44790	1806	56.1	108	3482	58521	12549	16.8	29792	2237.1	41155	4443	18.4		2172.5	48155	4478	22.2
GB	NLSExt	4.2	137	13	32.3	12592	93	2188	1836	23.5	1385	12.5	274	30	21.9		36.6	866	612	23.7
GB	NF	46.4	502	312	10.8	372						51.2	1119	294	21.9		48.8	810	215	16.6
GB	SCH	648.6	9453	2153	14.6	5449	458	6804	630	14.9	3817	364.8	9365	288	25.7		490.5	8541	754	17.4
GB	SCH-45											3.3	110	0	33.9		3.3	110		33.9
GB	SF	274.4	4403	513	16.0	2698						315.7	7027	108	22.3		295.1	5715	262	19.4
GB	TOTAL	4775.0	129565	4576	27.1	50928						8332.4	133171	5017	16.0		8246.2	140044	4802	17.0
MAB	BI	217.8	2572	244	23.7	928						52.8	407	5	7.7		135.3	1490	122	11.0
MAB	LI	428.2	8813	471	13.4	6122						746.2	8838	1364	11.8		587.2	8826	722	15.0
MAB	NYB	512.7	6667	771	28.9	3197						259.4	2539	162	9.8		386.0	4603	394	11.9
MAB	MA inshore	50.4	931	170	45.8	596						65.6	481	1	7.3		58.0	706	85	12.2
MAB	HCSAA	786.6	13529	853	15.8	7596						563.2	7867	310	14.0		674.9	10698	454	15.9
MAB	ET Open	714.7	15126	710	11.7	10544						730.2	10272	426	14.1		722.5	12699	414	17.6
MAB	ET Flex	887.6	18018	1197	16.6	11546						996.7	21264	1826	21.3		942.2	19641	1091	20.8
MAB	DMV	63.0	1150	161	35.0	772						51.5	1098	49	21.3		57.3	1124	84	19.6
MAB	VIR	65.7	86	19	55.7	0											65.7	86	19	1.3
MAB	TOTAL	3726.9	66891	1896	17.9	41300						3465.4	52766	2345	15.2		3629.0	59871	1508	16.5
TOTAL	TOTAL	8501.9	196456	4953	23.1	92227						######	185937	5539	15.8		11875.2	199915	3715	16.8

2.0 KEY POINTS FROM SEPT. 5, 2018 PDT CALL

See the full meeting summary for additional details.

2.1 Outlook for 2019 – 2020 Specifications

- **2019 Harvest:** The PDT recommends continuing to focus effort in access areas, and to continue to back off effort in open areas for the following reasons:
    1. Animals in Closed Area I, Nantucket Lightship-West, and the Mid-Atlantic access areas will be 6, 7, and 9 years old in 2019, and are ready for harvest.
    2. The majority of recruitment observed in the 2018 surveys is in open areas.
- Mid-Atlantic Access Area: There is one dominant year class in the Mid-Atlantic Access Area (Hudson Canyon and Elephant Trunk) that will be 6 years old in 2019. The 2018 surveys did not detect recruitment in these areas. The PDT discussed the possibility of multiple trips to the MAAA in 2019.
    1. The PDT does not think that the southern portion of the Elephant Trunk (south of 48.5° Latitude) will be fished in 2019 due to meat quality issues.
- There is one dominant year class in the Nantucket Lightship-West and Nantucket Lightship-South that will be 7 years old in 2019. The 2018 surveys did not detect recruitment in these areas.
    1. The NLS-S-shallow is being fished in 2018. This area is not expected to support a full trip in 2019 on its own. However, it could be combined with the NLS-West, or harvest could be delayed.
- There are three year-classes in the NLS-N, and some recruitment was observed in 2018. The PDT does not recommend fishing this area in 2019.
- Small amounts of recruitment were observed in the South Chanel, southeast parts (CAII-S, CAII-ext, SF), Block Island, Long Island, and New York Bight.
- It appears that CAII could support a trip in 2019. However, the 2018 surveys detected three cohorts in this area. The oldest cohort will be five years old in 2019, and have additional growth potential.
    1. Relative to other available access areas (CAI, NLS-West, MAAA), there is less urgency to harvest the scallops in CAII. Animals in those areas will be 9, 7, and 6 in 2019.
- Reference points for will be updated following SARC 65 – the F (fishing mortality) associated with the OLF and ABC/ACL will increase to F=0.64 from F=0.48.
- The slow-growing animals in the NLS-S-deep will be 7 years old in 2019. The 2018 surveys detected a reduction in density, and very little growth. Preliminary 2018 survey biomass estimates for this area suggest that there are over 3 billion animals and around 35 thousand metric tons of biomass. The mean weight per animal is around 10g.
    1. PDT Consensus: There is not a biological reason to not harvest these animals.

2. The PDT has tracked the growth of these animals since the were first detected, and they are not growing normally. The fecundity of these animals is questionable, and the SHMW relationship is smaller than other animals in the NLS that are part of the same 2012 cohort. This suggests that there may be environmental and(or) density dependent factors limiting their potential to reproduce or grow to sizes expected in other areas of the NLS.
3. If the Council considers recommending harvest of these animals, the PDT noted that short-term changes in crew sizes and trips limits could help to support harvest from this area. The PDT did not support using a smaller ring to aid harvest in the short-term, noting that the commercial dredge with a 4" ring and the survey dredge on the 2018 surveys captured a similar length distribution of animals.

2.2 Growth in the Nantucket Lightship

A review of VIMS length-frequency data from the Nantucket Lightship-West suggested slower than expected growth by animals in this area between the 2017 and 2018 surveys.

- Growth assumptions for the NLS-West have short-term management implications. It is important to fine-tune estimates of $L\infty$ and K (growth) in this area because these animals are getting older (will be 7 years old in 2019) and represent a large portion of harvestable scallops within Georges Bank access areas.
- Growth relationships are uncertain, and the sample size for areas in the NLS from recent years is small. Additional analysis is warranted to help better understand growth in this area.

2.3 Closed Area I – Multiple Cohorts

On August 29th, 2018 the Scallop PDT noted that length-frequency plots suggest that there are two cohorts of animals in Closed Area I, and felt that additional work could help determine is a closure should be considered to maximize yield of the younger year class.

- While there is some overlap, the two cohorts observed in the 2018 surveys appear to be in separate areas of CAI.
- The PDT does not support a closure in Closed Area I. The larger animals are predominately in the eastern portion of the CAI-NA-N sliver, while the younger year class is in the western portion of the area.
- In general, 4 year old animals that are around 100mm are susceptible of the 4" rings of the dredge, but still have growth potential.
- The larger of the two cohorts in CAI-NA-N will be 9 years old in 2019, and are being fished in 2018.
- Members of the PDT did not support the consideration of closures for small areas, particularly without a clear plan for how to treat the opening. For example, the western portion of CAI-NA would be too small to become an access area.

2.4 SMAST estimates of biomass in federal waters of Ipswich Bay

The 2018 SMAST drop camera survey of Ipswich Bay included stations in both state and federal waters.

- The lengths of scallop observed in state and federal waters were very similar.
- The change in biomass (reduction) is driven by reducing the number of stations included in the estimate, not a change in the density of scallops or size of the animals.
- Result of re-estimation: Decline in biomass estimate that could be used in setting 2019 TAC for NGOM (410 mt in the entire survey area, 290 mt in federal waters).

2.5 Summary of PDT Discussion Points and Recommendations for Potential 2019 rotational management

Area	# of cohorts	Recruitment?	Fished in 2018?	Candidate For:
NLS-N	3	Average	No	Closure. PDT feels that the NLS-North is not ready.
NLS-S Shallow	1	None observed	Yes - 1 trip	Opening if combine with NLS-WEST, or WAIT for FY 2020.
NLS-S Deep	1	None observed	Open, not fished	Not all animals recruited to dredge, but susceptible to capture in high densities
NLS-W	1	None observed	Yes - 2 trips	Multiple trips
CAII-S-AC	3	Some (average?)	No	Potential trip
CAI-NA	2	None observed	Yes - 1 trip	Potential trip
CAI-AC	2	Minimal	Open, some effort	Combine with other areas, open bottom?
MAAA	1	None observed	Yes - 2 trips	Multiple trips