NGOM TAC Analysis

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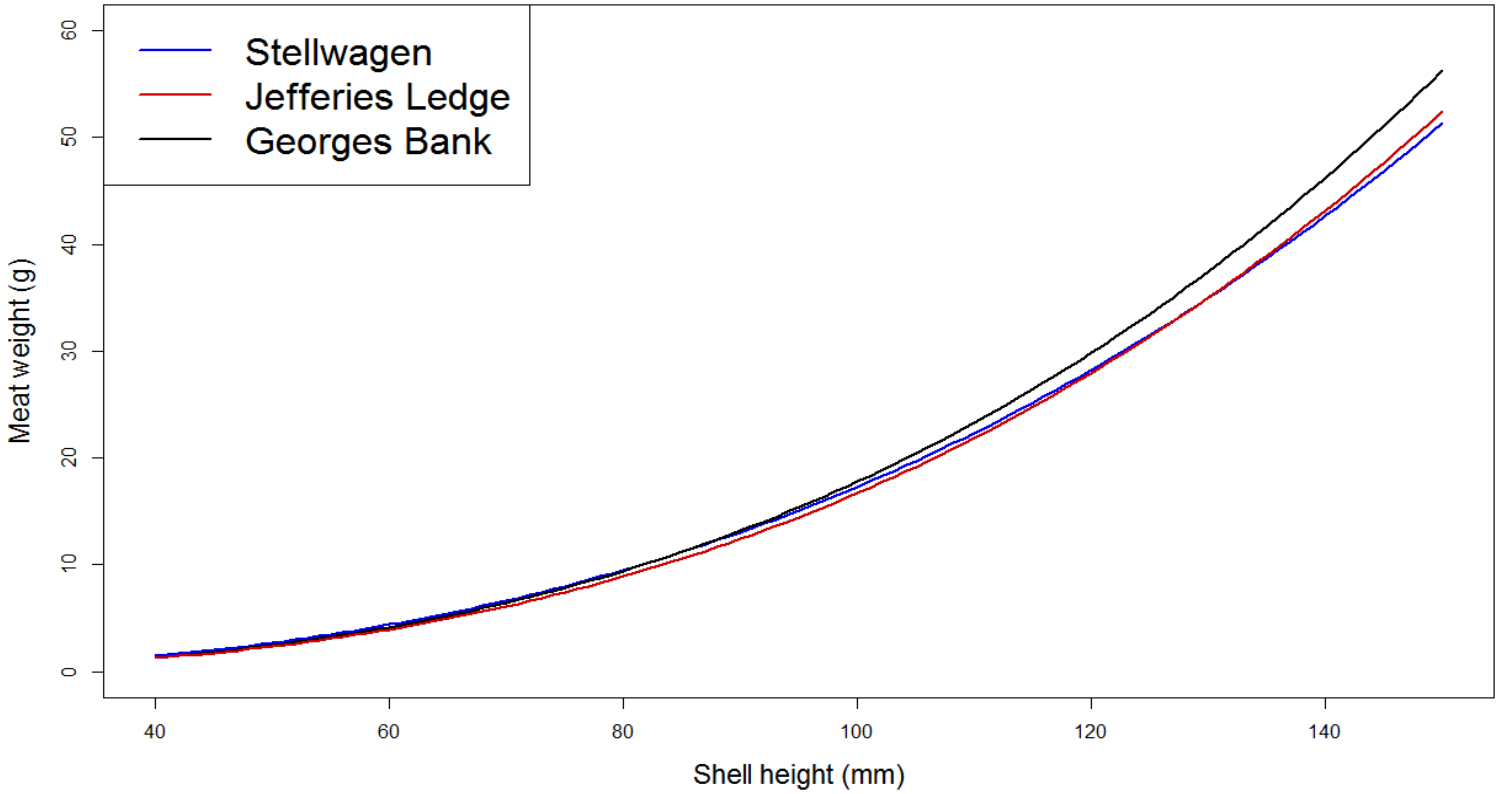
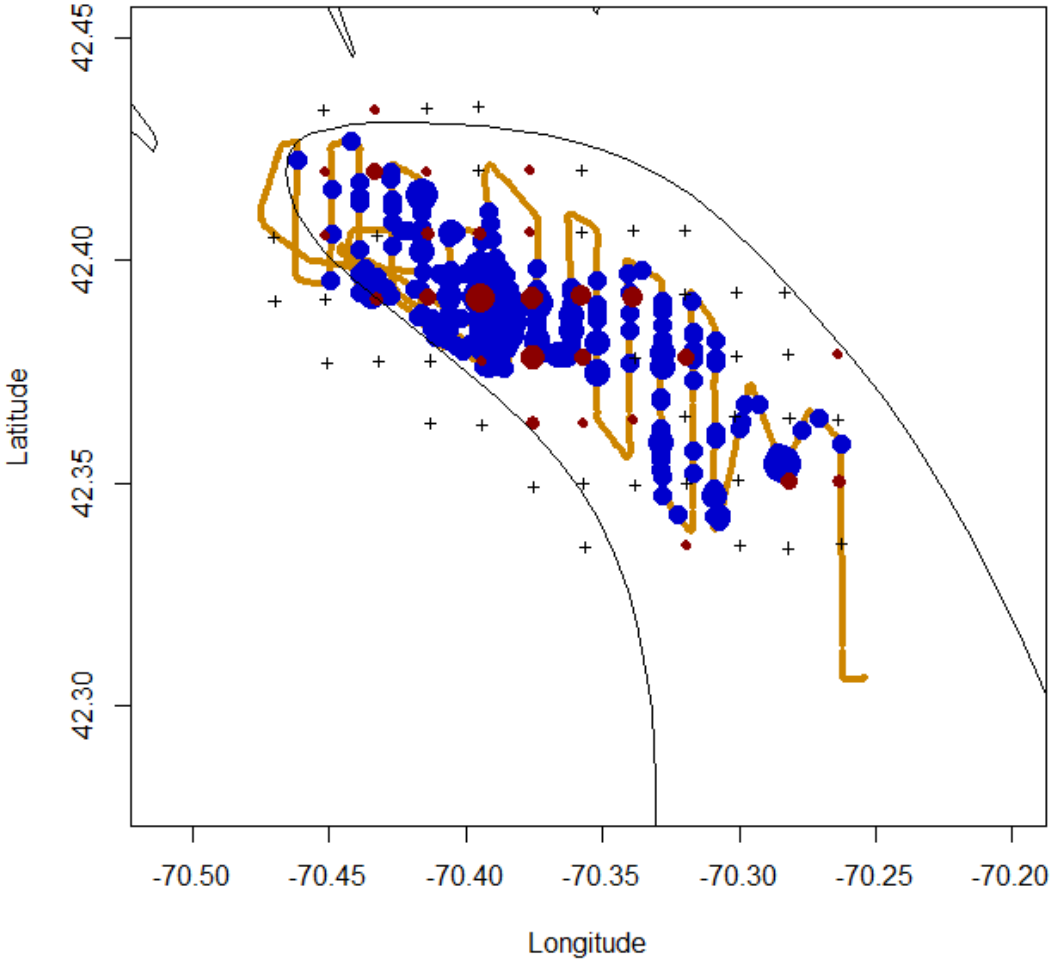
Comparison of shell height to meat weight relationships

Have used GB relationship from Hennen & Hart (2012)

Area specific relationships were obtained using limited data from Stellwagen and Jefferies from 2016 UMaine/Maine DMR survey (Mike Torre)



2017 Stellwagen Bank Surveys



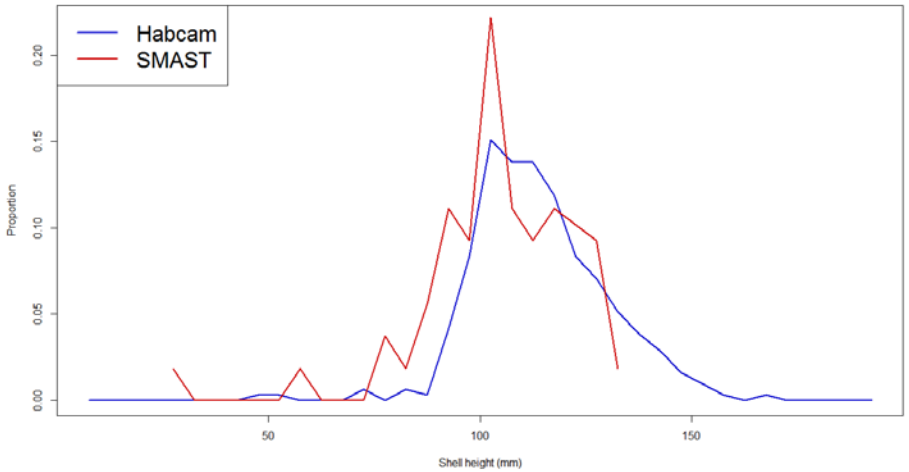
Blue: Habcam scallop observation

Red: SMAST scallop observation

Orange: Habcam, no scallop

+ : SMAST, no scallop

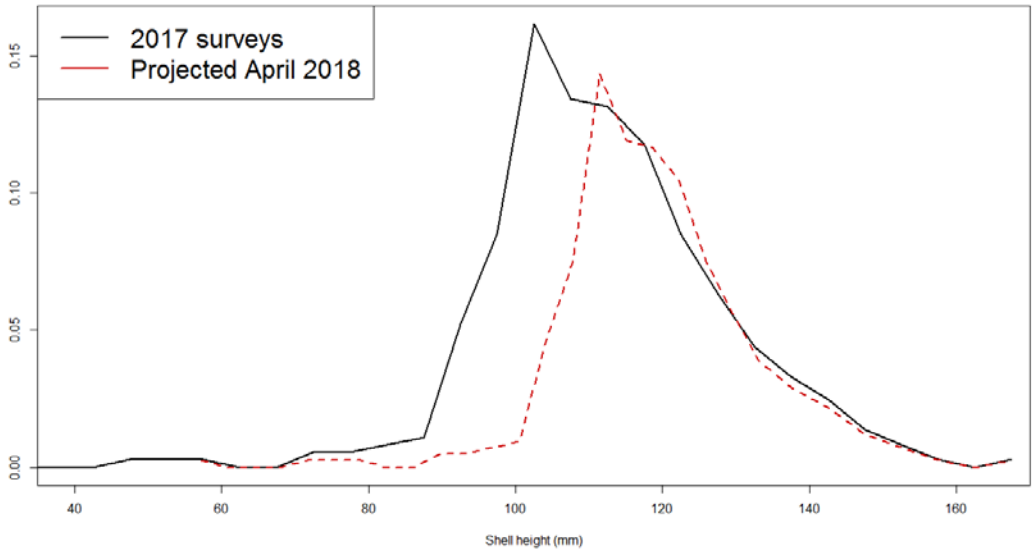
2017 Stellwagen Bank Surveys



Habcam measured 311 scallops, SMAST measured 54 Data was combined (365 scallops) for analysis

	Drop Camera (Digital)				Habcam				Means		
Gulf of Maine	**NumMil**	**BmsMT**	**SE**	**MeanWt**	**NumMil**	**BmsMT**	**SE**	**MeanWt**	**NumMil**	**BmsMT**	**SE**
Jeffreys Ledge					5	177	42	35.4	5	177	42
Stellwagen	14	356	69	25.82	18	511	75	28.4	16	434	102
TOTAL					**23**	**688**	**86**	**29.9**	**21**	**611**	**110**

2018 Stellwagen Bank Projection



2017 survey shell heights were projected forward 9 months, using L = 134.7, K=0.433, M = 0.16, no fishing

Exploitable biomass 2018:

359.4 mt meats (Stellwagen SH/MW)

362.5 mt meats (GB SH/MW)

Used 360 mt meats

TAC Calculation - Stellwagen

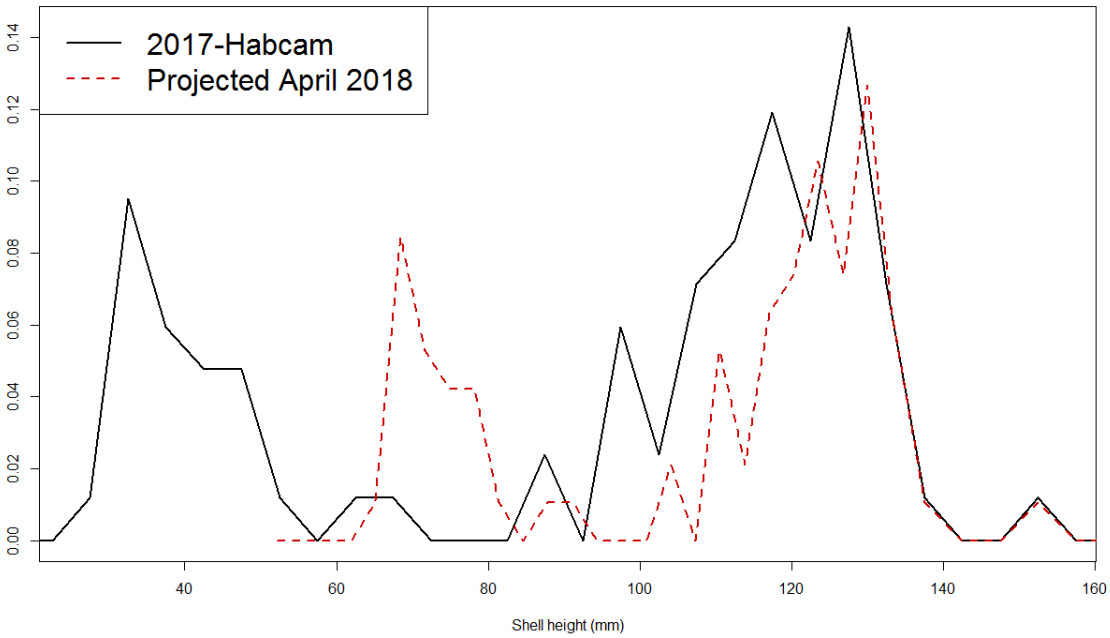
Use F_{MSY} = 0.3, from Georges Bank

F_{target} should be less than 70% F_{MSY}

Use F_{target} = 0.15, 0.18, 0.2, and exploitable biomass of 360 mt meats in 2018

F_{target}	TAC (mt)	TAC (thousand lbs)
0.15	54.0	119.0
0.18	64.8	142.9
0.20	72.0	158.7

2018 Jefferies Ledge Projection



2017 survey shell heights were projected forward 9 months, using L = 134.7, K=0.433, M = 0.16, no fishing

Exploitable biomass 2018:

101.2 mt meats

TAC Calculation – Jefferies Ledge

Use F_{MSY} = 0.3, from Georges Bank

F_{target} should be less than 70% F_{MSY}

Use F_{target} = 0.15, 0.18, 0.2, and exploitable biomass of 101.2 mt meats in 2018

F_{target}	TAC (mt)	TAC (thousand lbs)
0.15	15.2	33.5
0.18	18.2	40.2
0.20	20.2	40.6

TAC Calculation – Combined

Sum of Stellwagen and Jefferies

Presumes that Jefferies will be fished

Ignores biomass in other areas of the NGOM

F_{target}	TAC (mt)	TAC (thousand lbs)
0.15	69.2	152.6
0.18	83.0	183.0
0.20	90.2	198.9

Questions

1. Will there be any fishing on Jefferies in 2018? If so, NGOM TAC should be Stellwagen + Jefferies combined. If not, TAC should be Stellwagen only. If the combined TAC is used, a target F=0.15 could be used so that even if all the fishing occurs on Stellwagen, F on Stellwagen will be less than 0.2.

2. Regardless of the answer to Question 1, there will be insufficient TAC for a fishery by limited access vessels in 2018. One possibility is to split the TAC between NGOM/GC vessels, and RSA compensation, preferably for NGOM projects.