

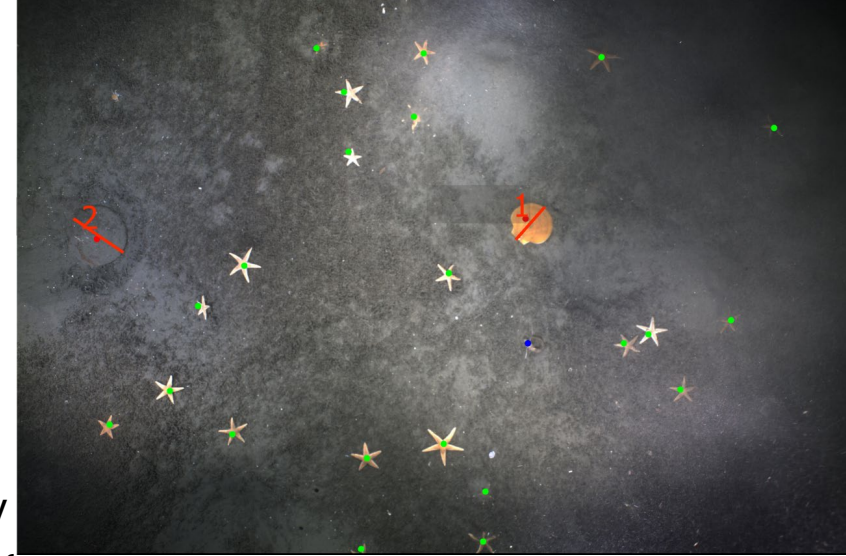
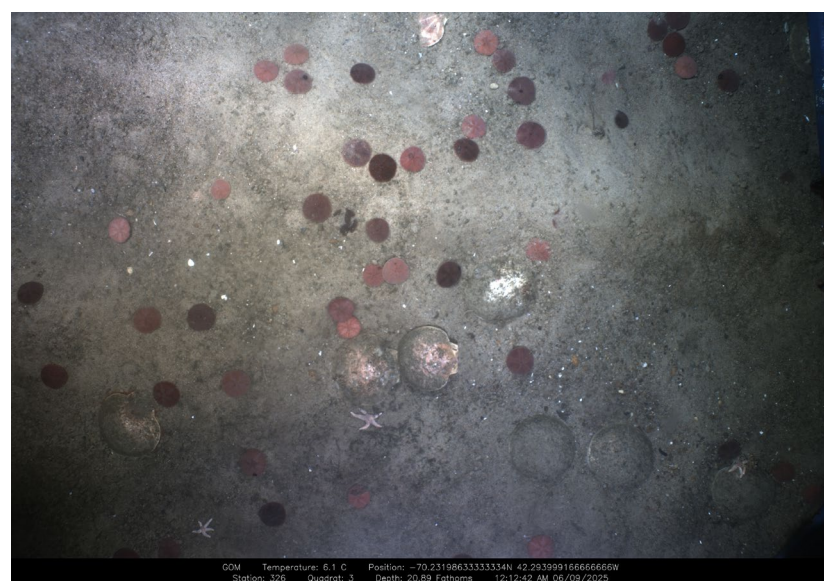
SMAST Gulf of Maine Survey Results 2025

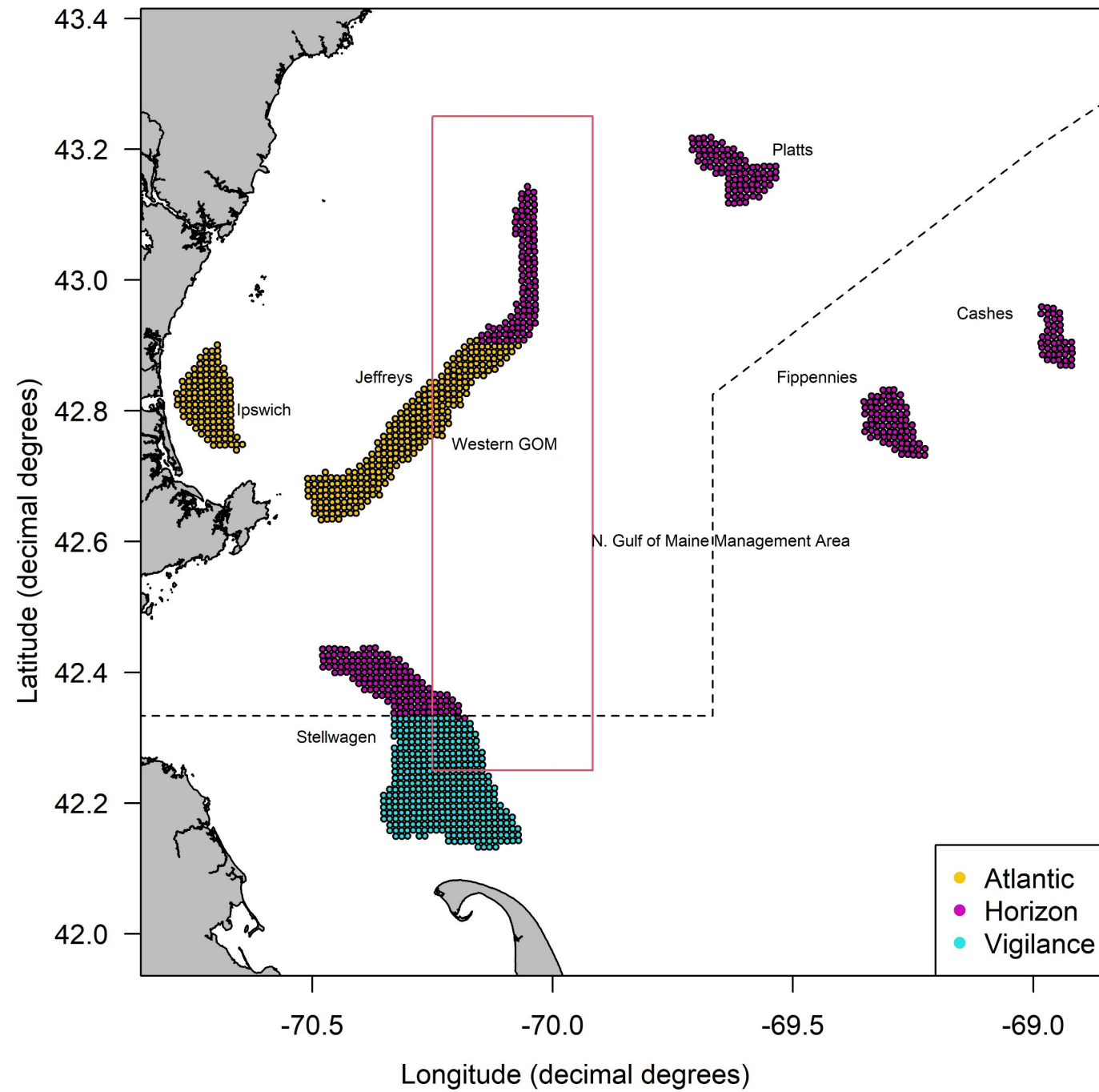
Adam Delargy and Kevin Stokesbury

Scallop PDT Meeting

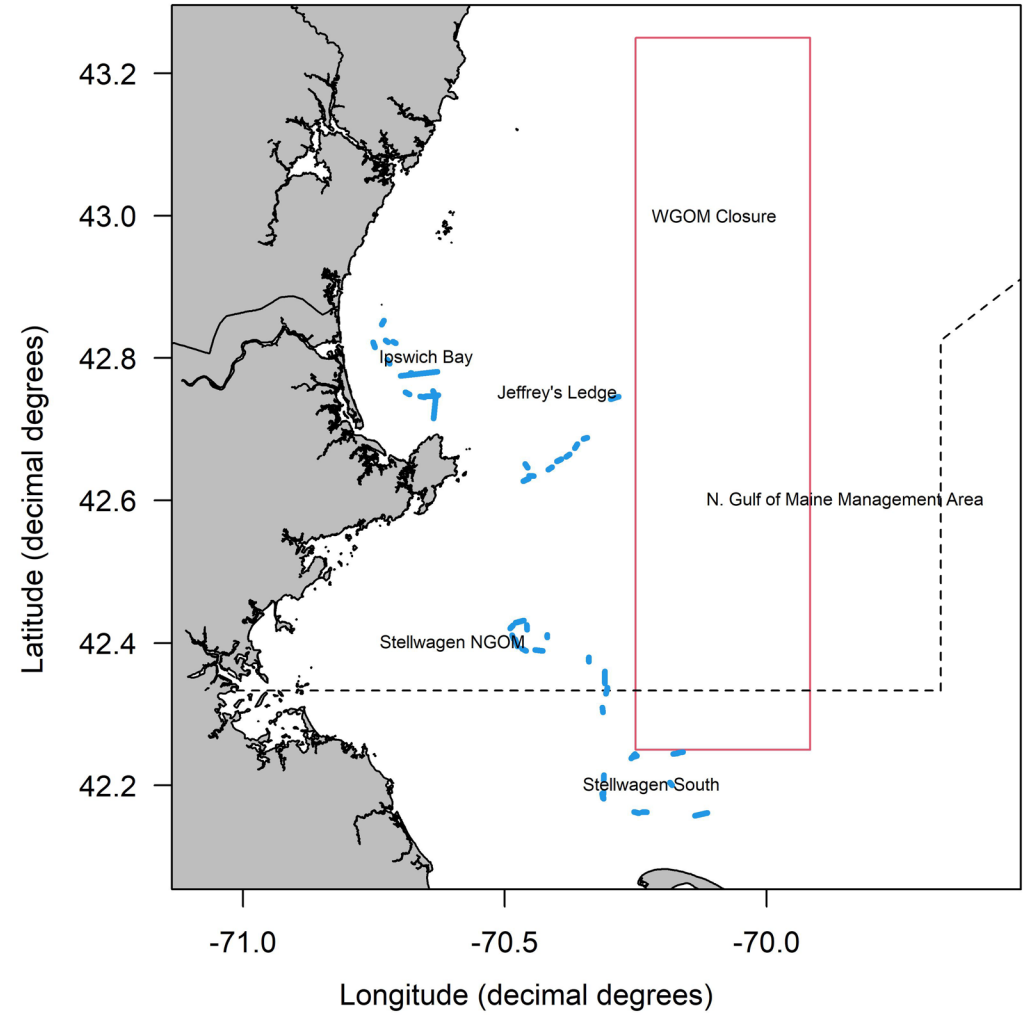


Department of Fisheries Oceanography
School for Marine Science and Technology
University of Massachusetts Dartmouth





Gulf of Maine dredge samples



Shell height meat weight equations: GoM

DMR & SMAST (2016-2024) for Ipswich, Jeffreys, and Stellwagen

W

$$= \exp(-10.09 + 3.00 * \ln(\text{shell height}) - 0.239 * \ln(\text{depth}) - 0.0001 * \text{latitude})$$

DMR & SMAST (2016-2025) for Ipswich, Jeffreys, and Stellwagen

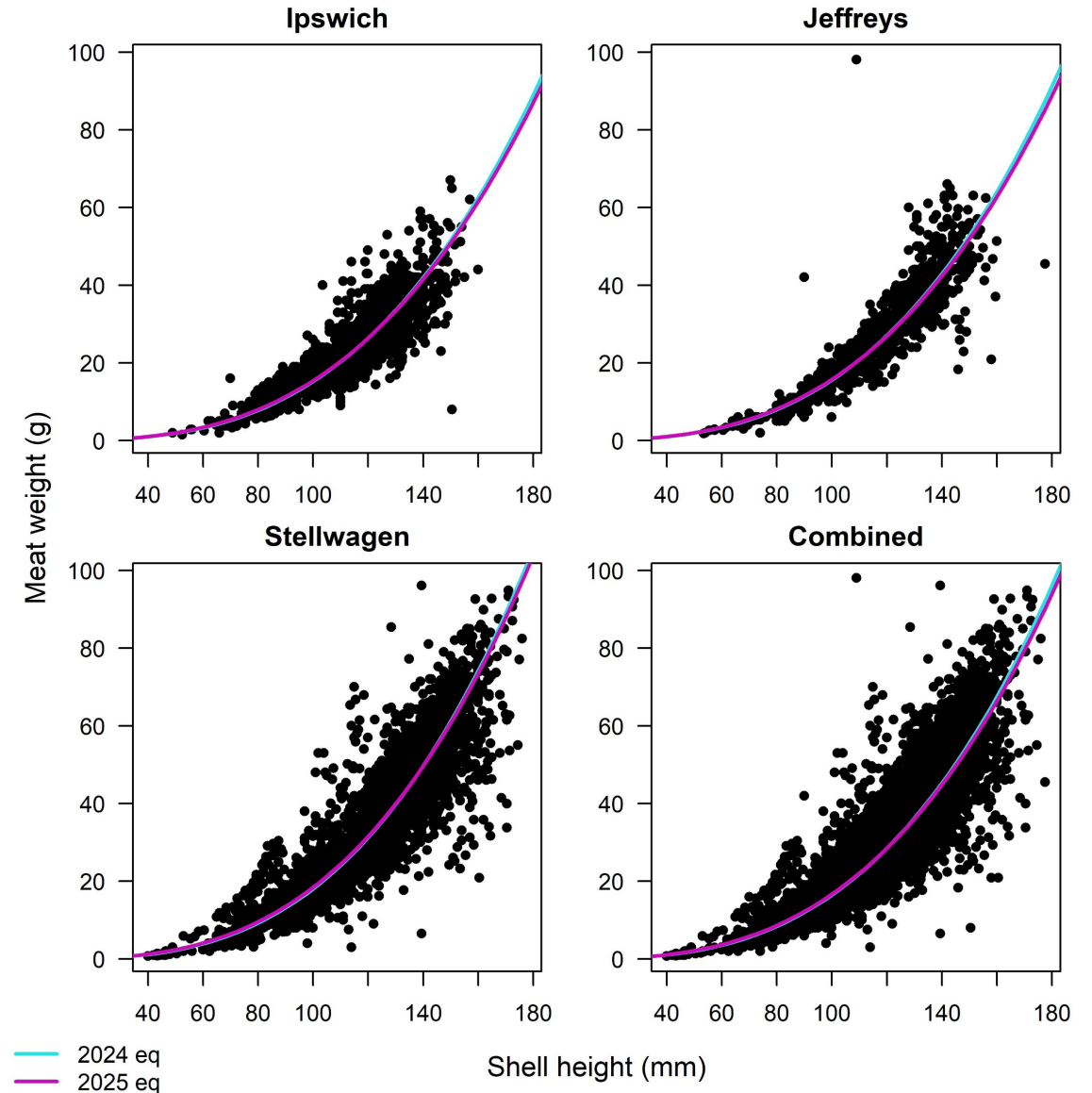
W

$$= \exp(-9.916 + 2.942 * \ln(\text{shell height}) - 0.2132 * \ln(\text{depth}) - 0.00003543 * \text{latitude})$$

DMR (2016-2025) Platts

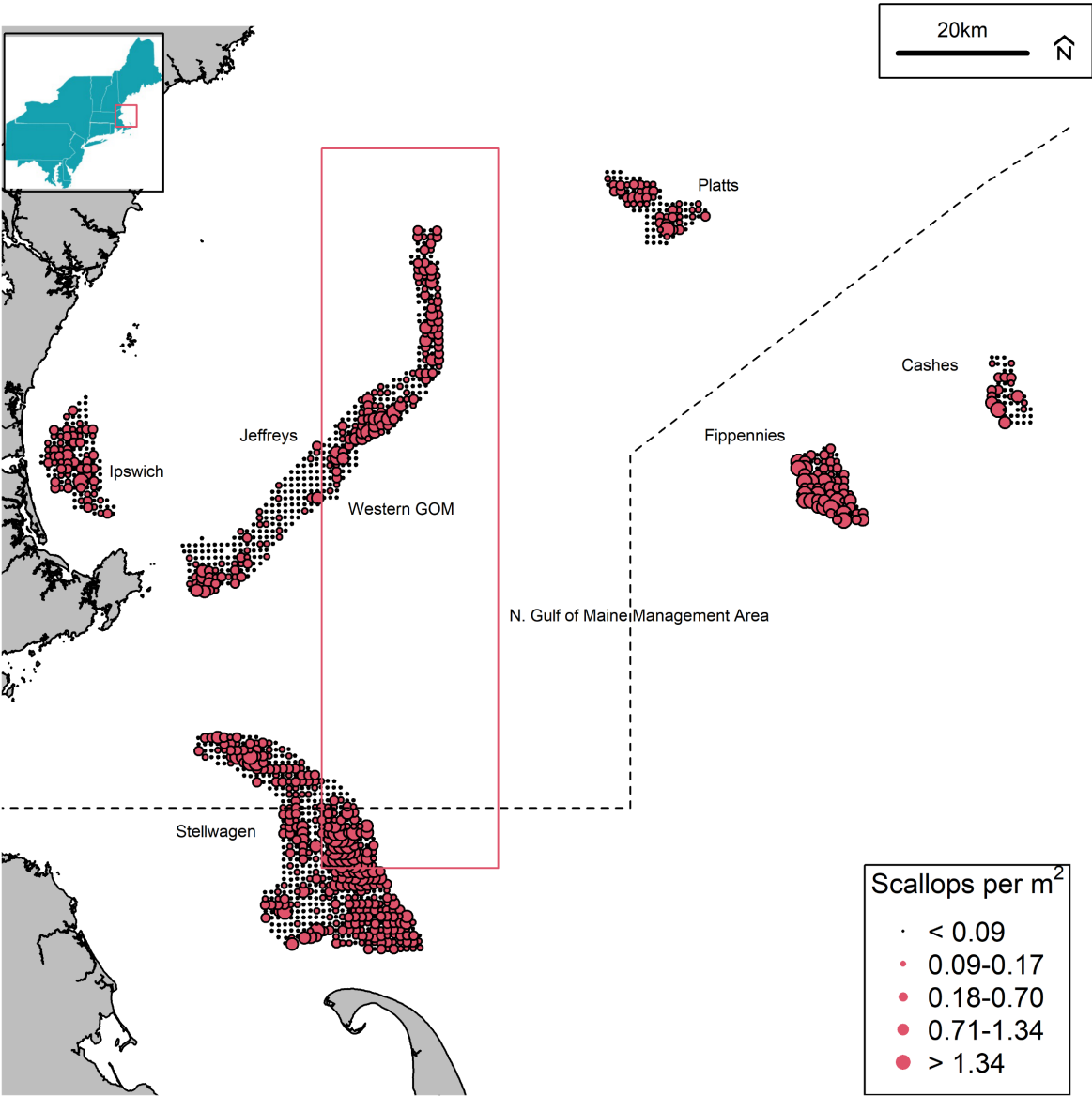
W

$$= \exp(182.0968 + 2.12241 * \ln(\text{shell height}) - 0.05176 * \ln(\text{depth}) - 4.3775 * \text{latitude})$$

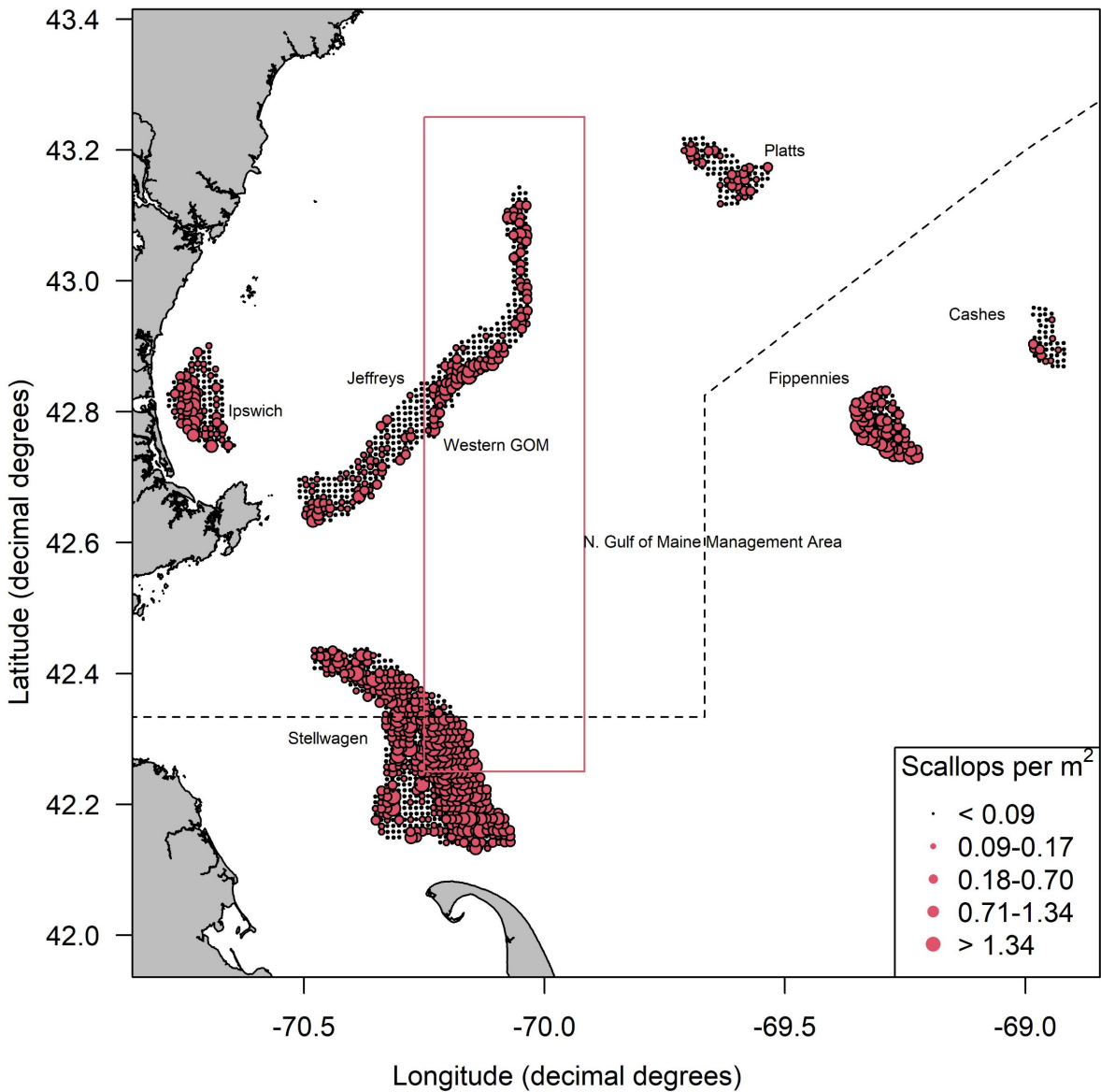


	Abundance (millions)			Biomass (metric tons)			Exploitable Biomass (metric tons)		
	2024	2025	Percent Difference (%)	2024	2025	Percent Difference (%)	2024	2025	Percent Difference (%)
Platts Bank	4.4	3.2	-28	43	60	40	28	36	30
Ipswich Bank NGOM	9.3	4.7	-49	163	130	-21	112	75	-33
Jeffrey's Ledge	7.4	8.0	7	163	188	15	128	113	-11
Jeffrey's Ledge WGOM	24.3	24.1	-1	650	721	11	582	502	-14
Stellwagen Bank NGOM	34.4	16.7	-51	944	389	-59	759	219	-71
Non-NGOM									
Stellwagen South	40.0	23.3	-42	427	297	-31	197	128	-35
WGOM Closure	45.0	54.9	22	1990	2559	29	1890	1968	4
Ipswich Bay MA State waters	1.6	1.1	-32	22	15	-34	13	7	-48
Cashes	2.7	1.0	-64	77	25	-67	67	16	-76
Fippennies	31.4	25.4	-19	815	708	-13	715	461	-36

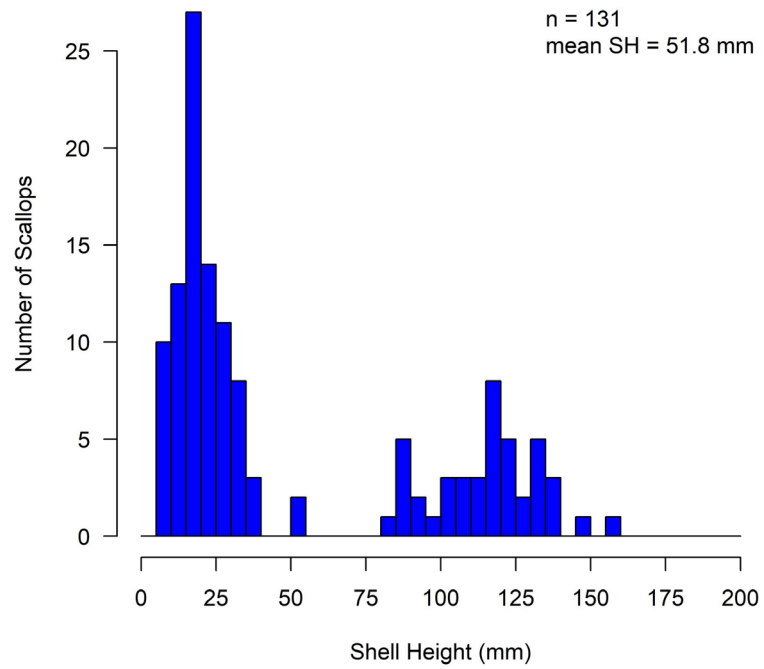
2024



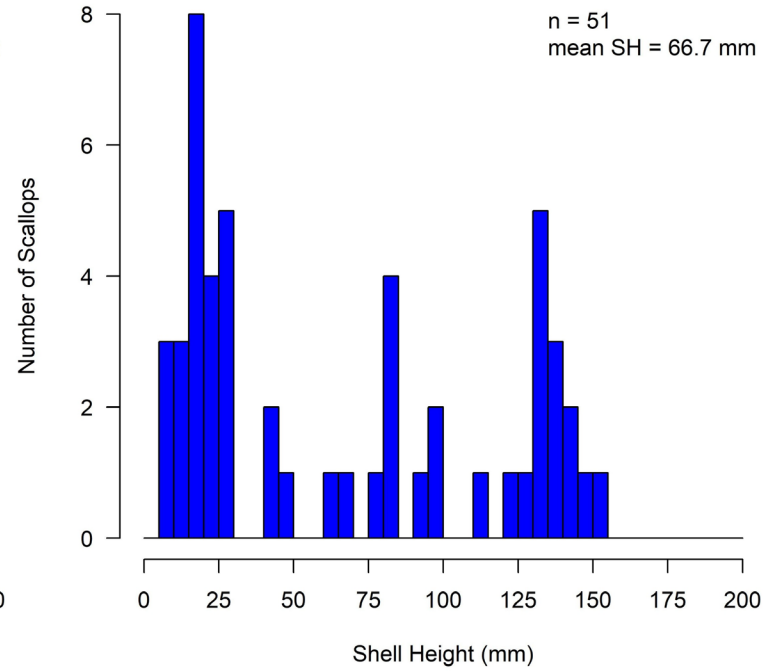
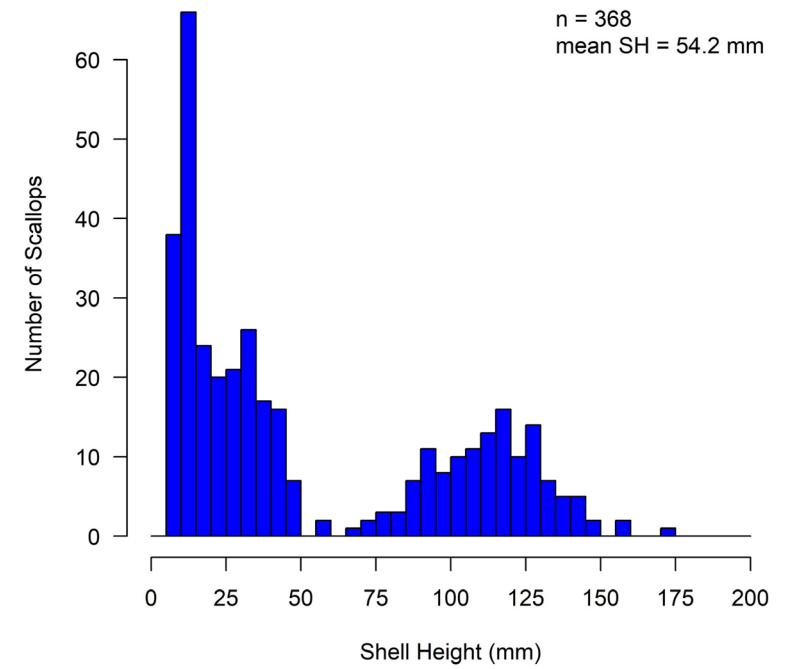
2025



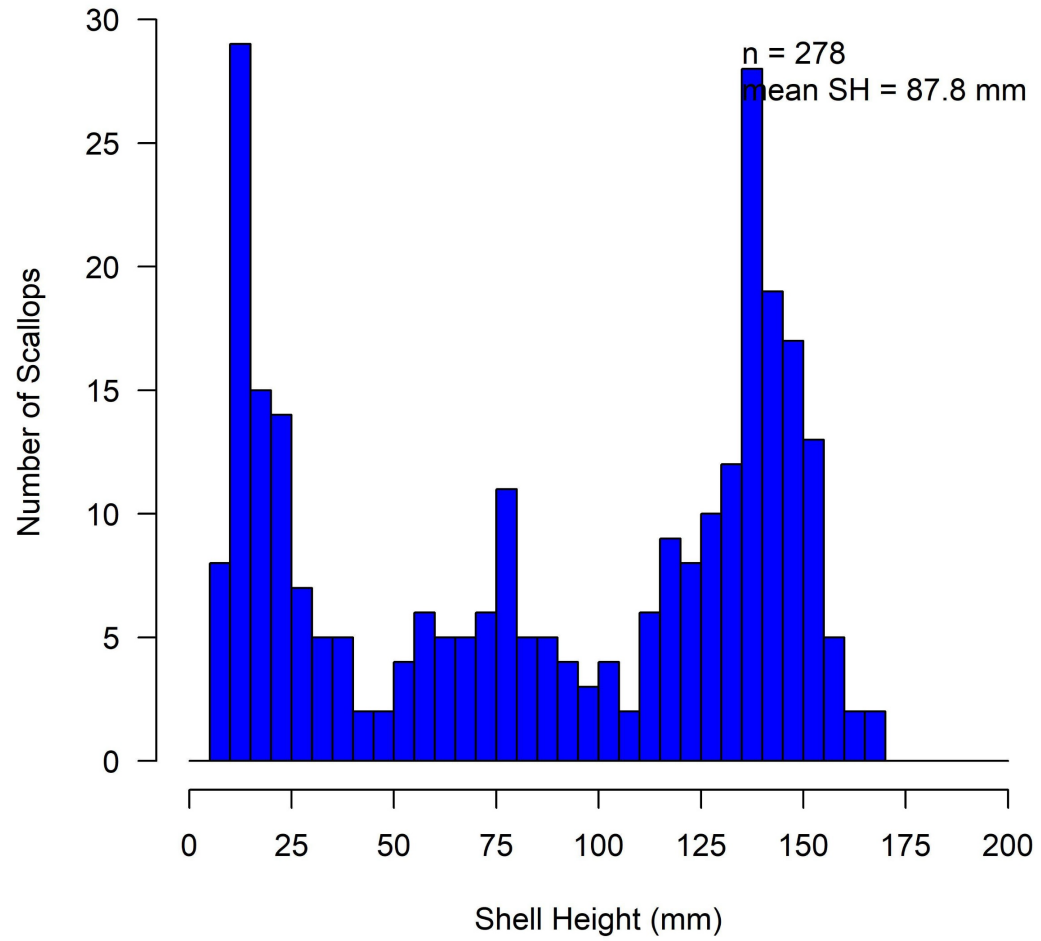
I

Ipswich Federal

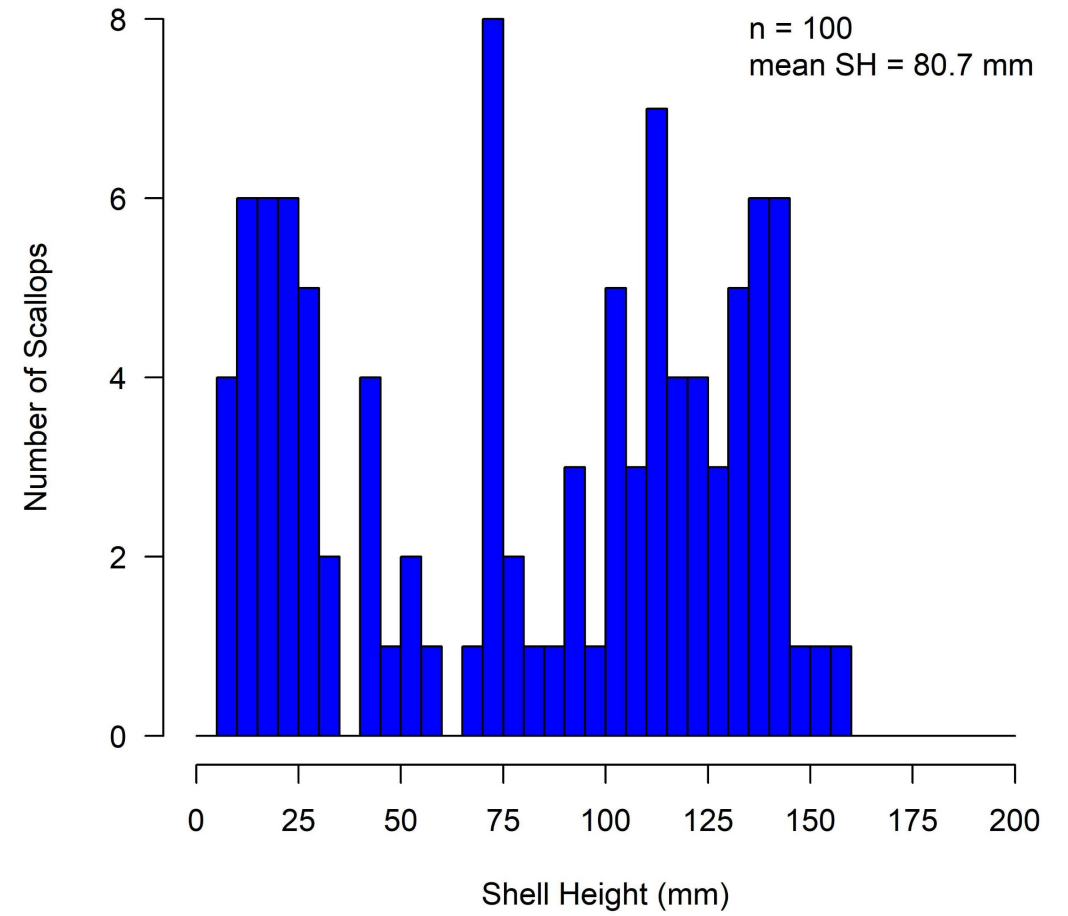
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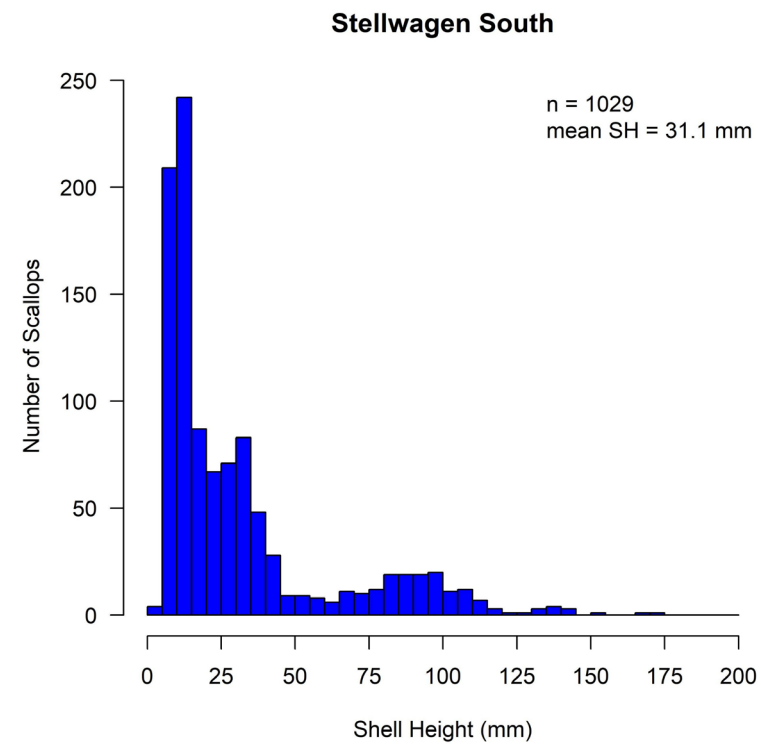
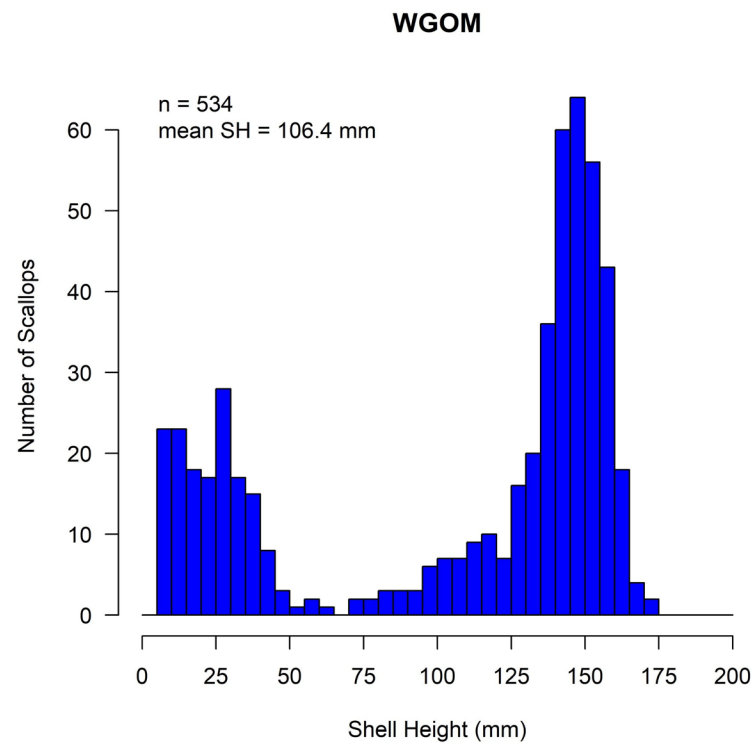
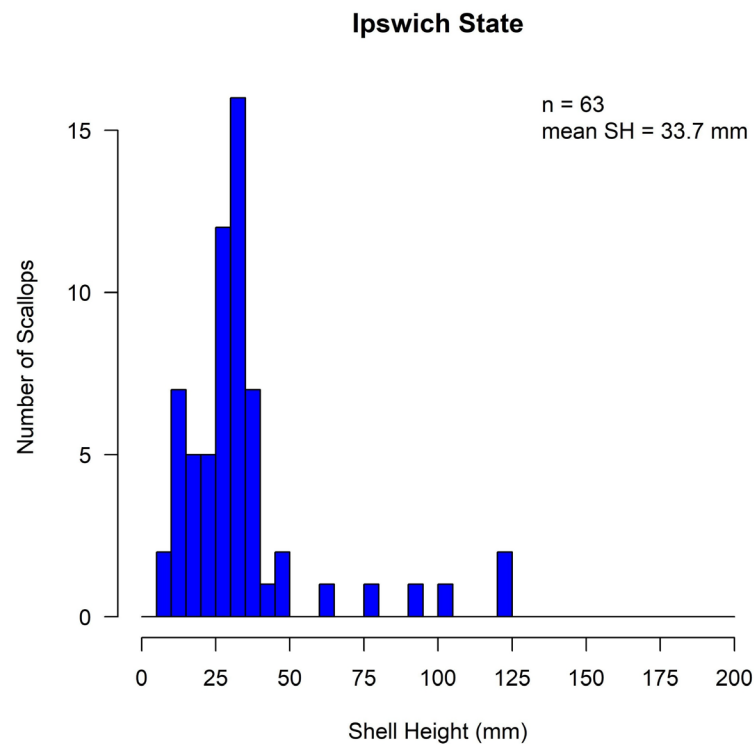
Platts**Stellwagen NGOM**

Jeffreys WGOM

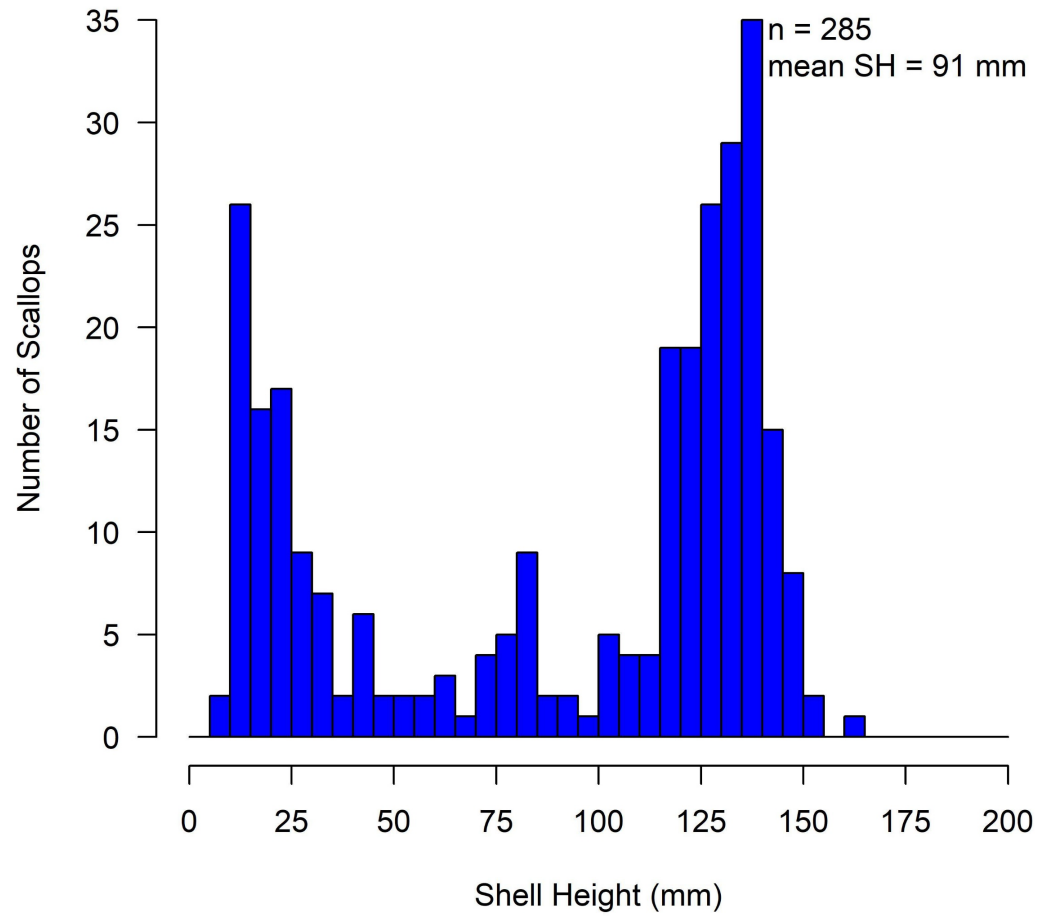


Jeffreys

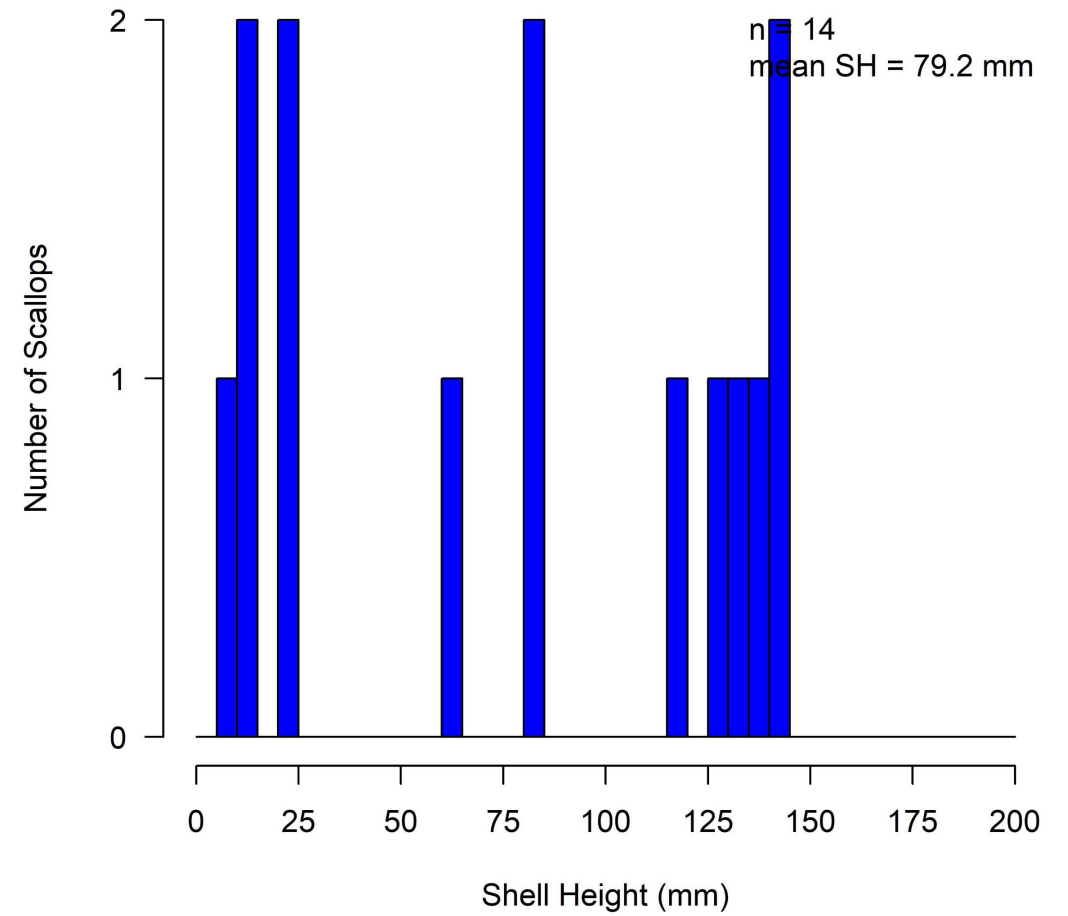




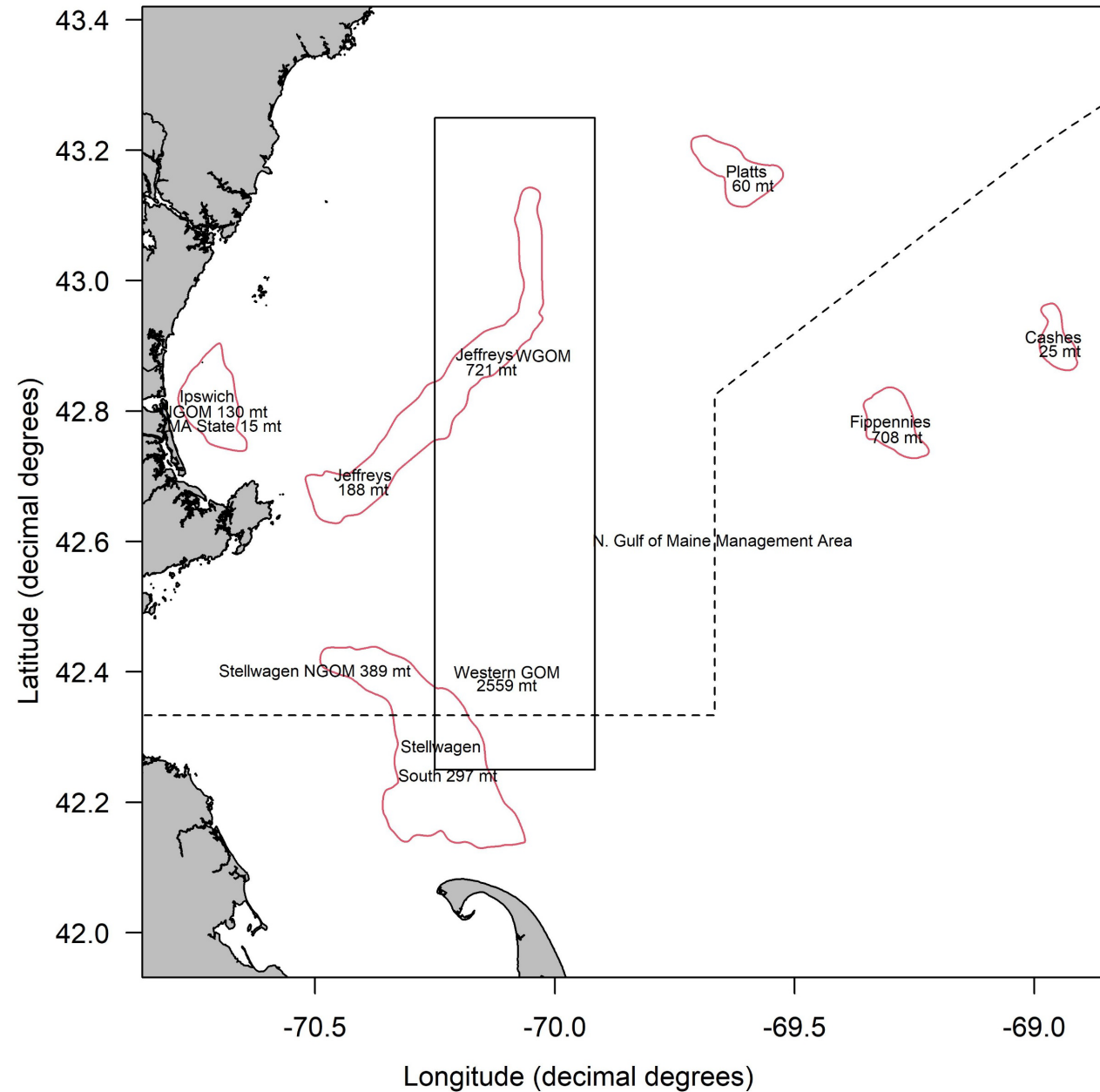
Fippennies



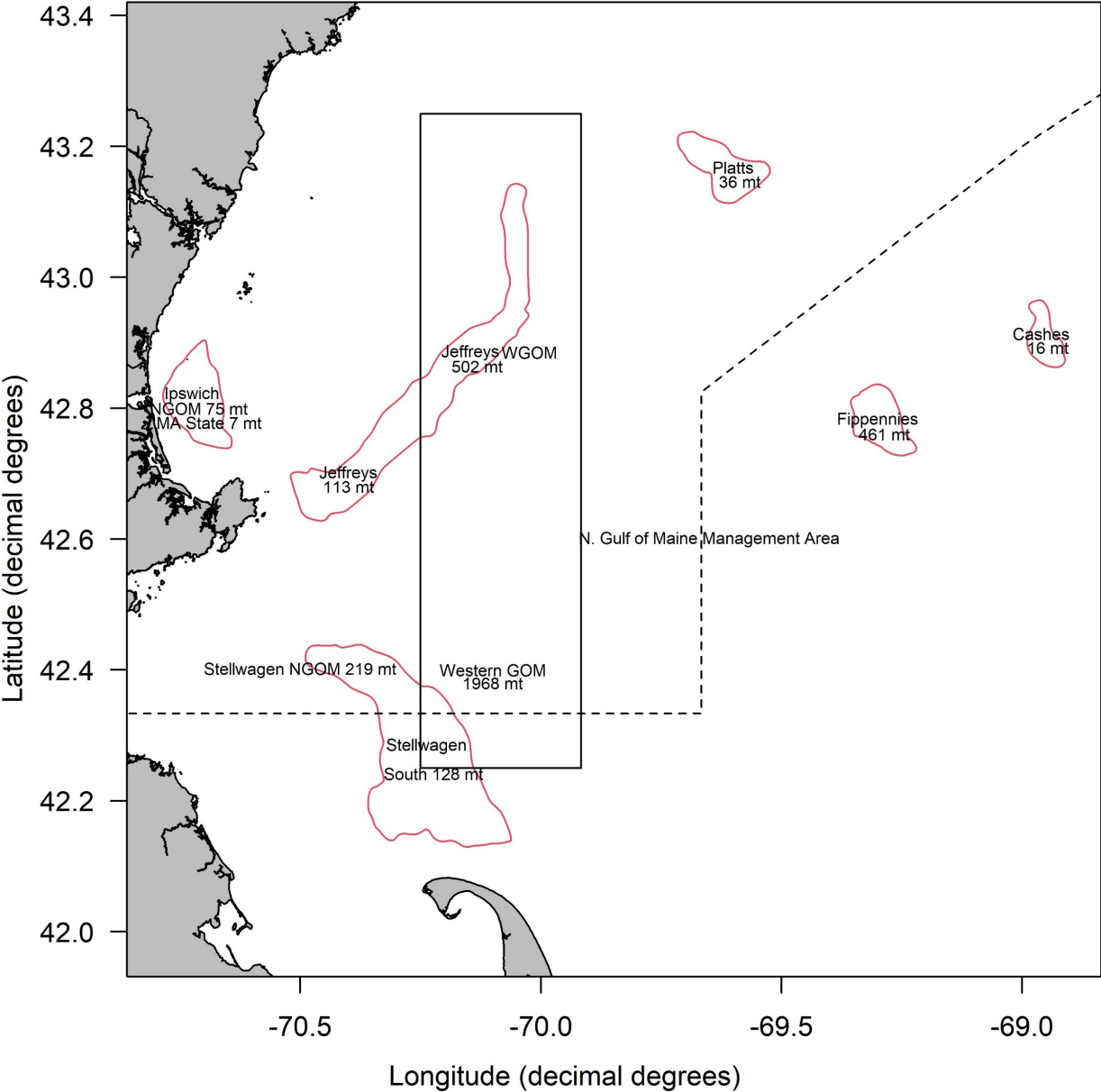
Cashes



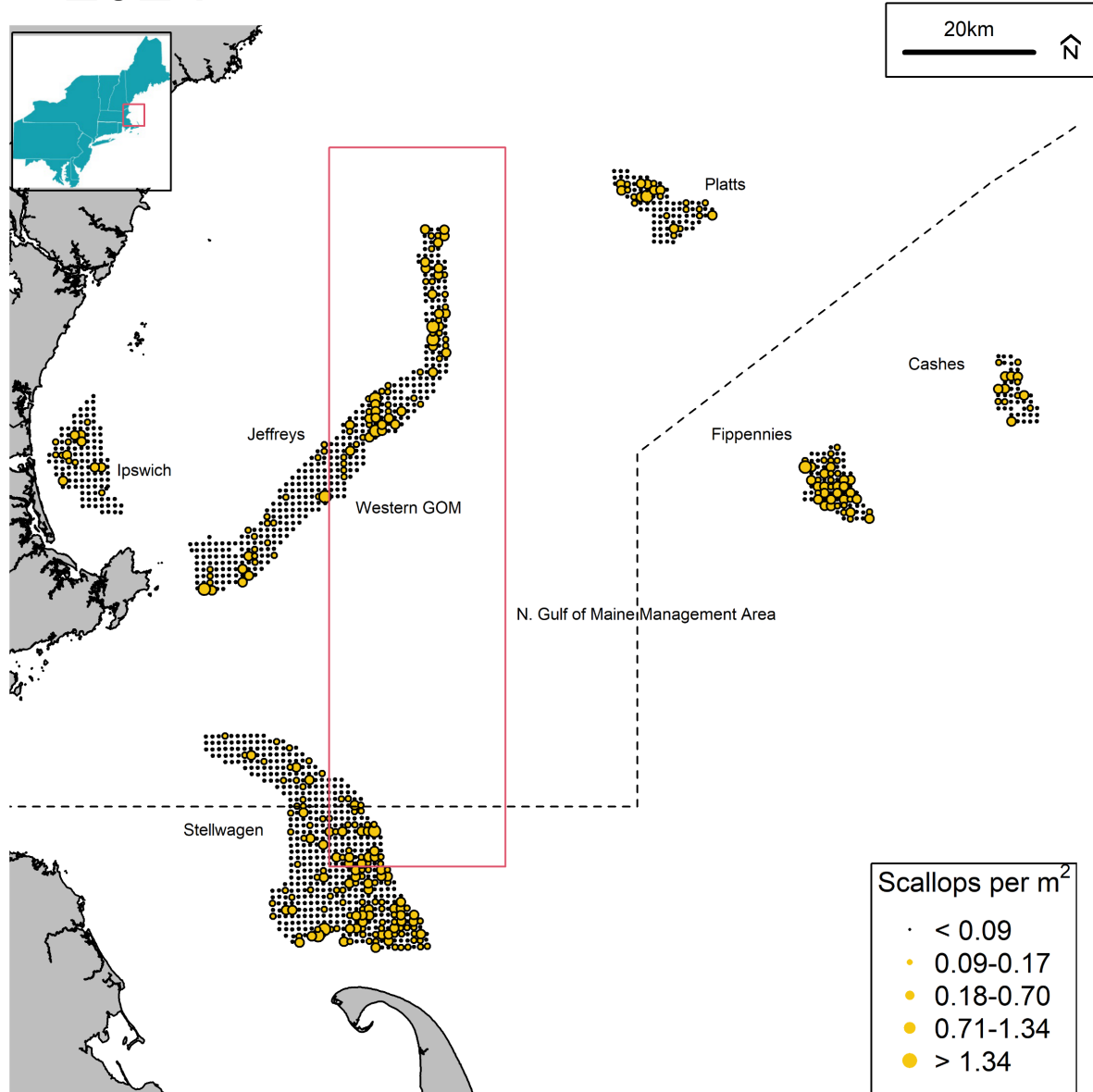
Biomass
estimates ($\geq$
40 mm shell
height) in
metric tons



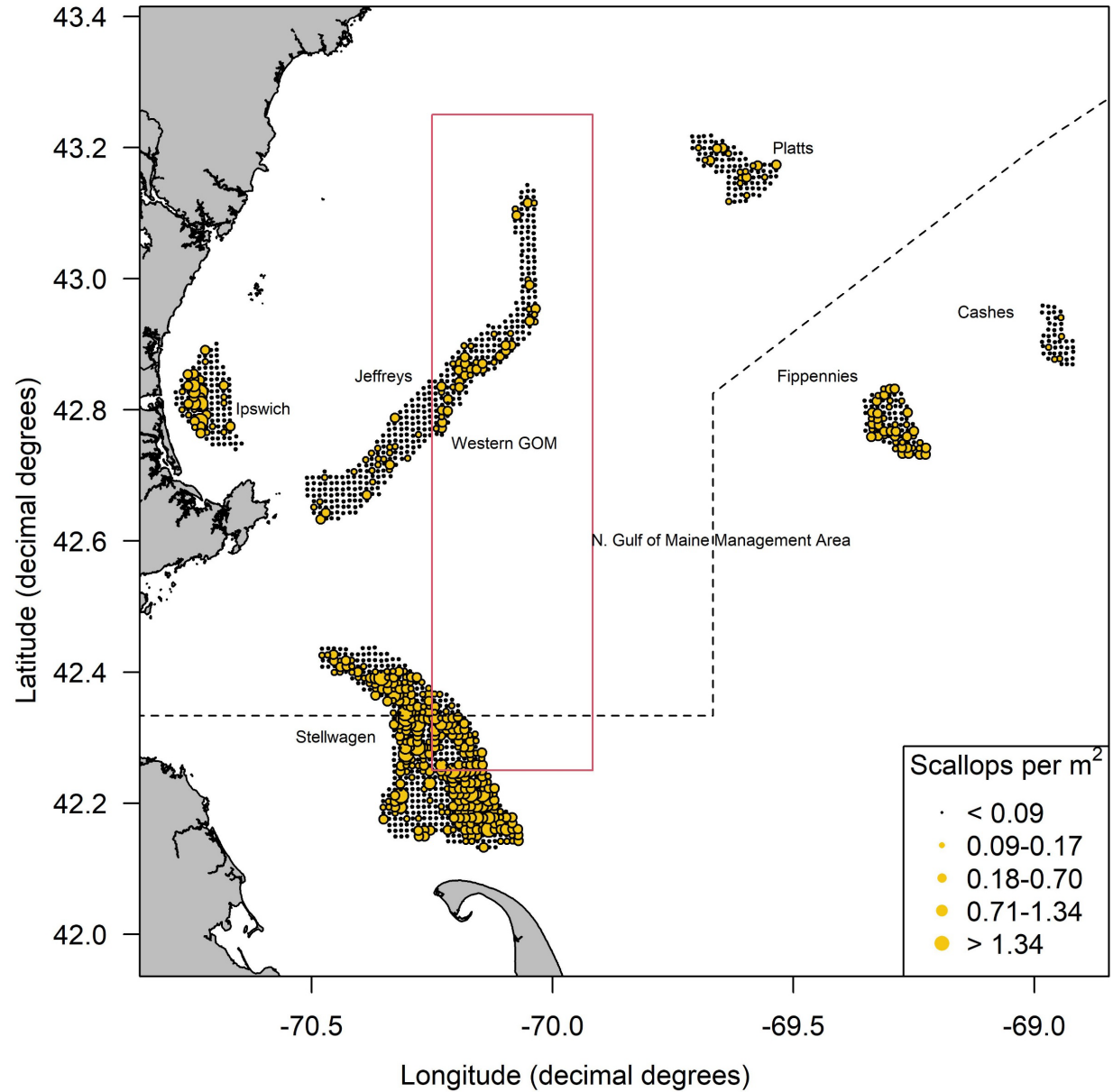
Exploitable biomass estimates in metric tons



2024

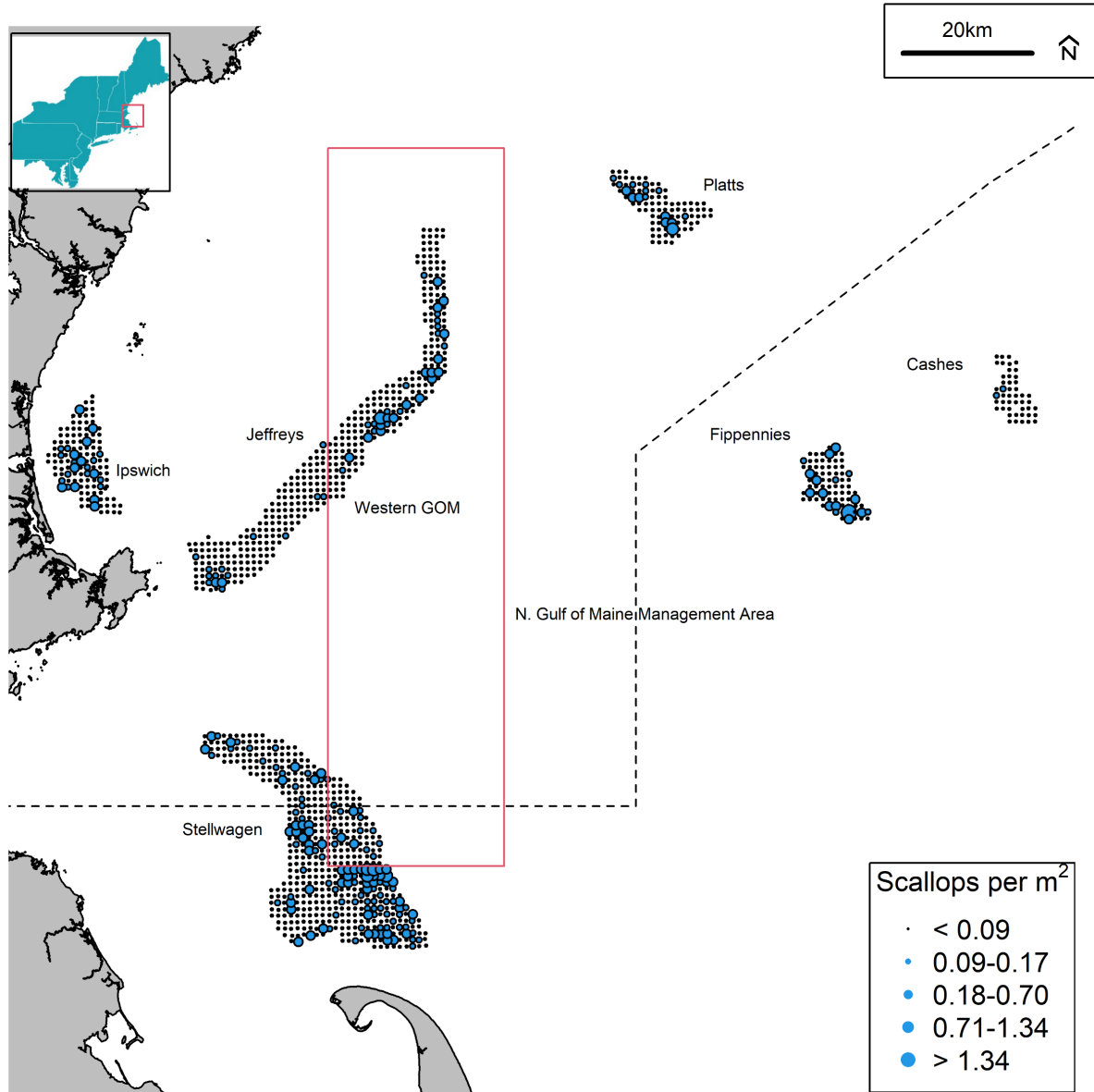


2025



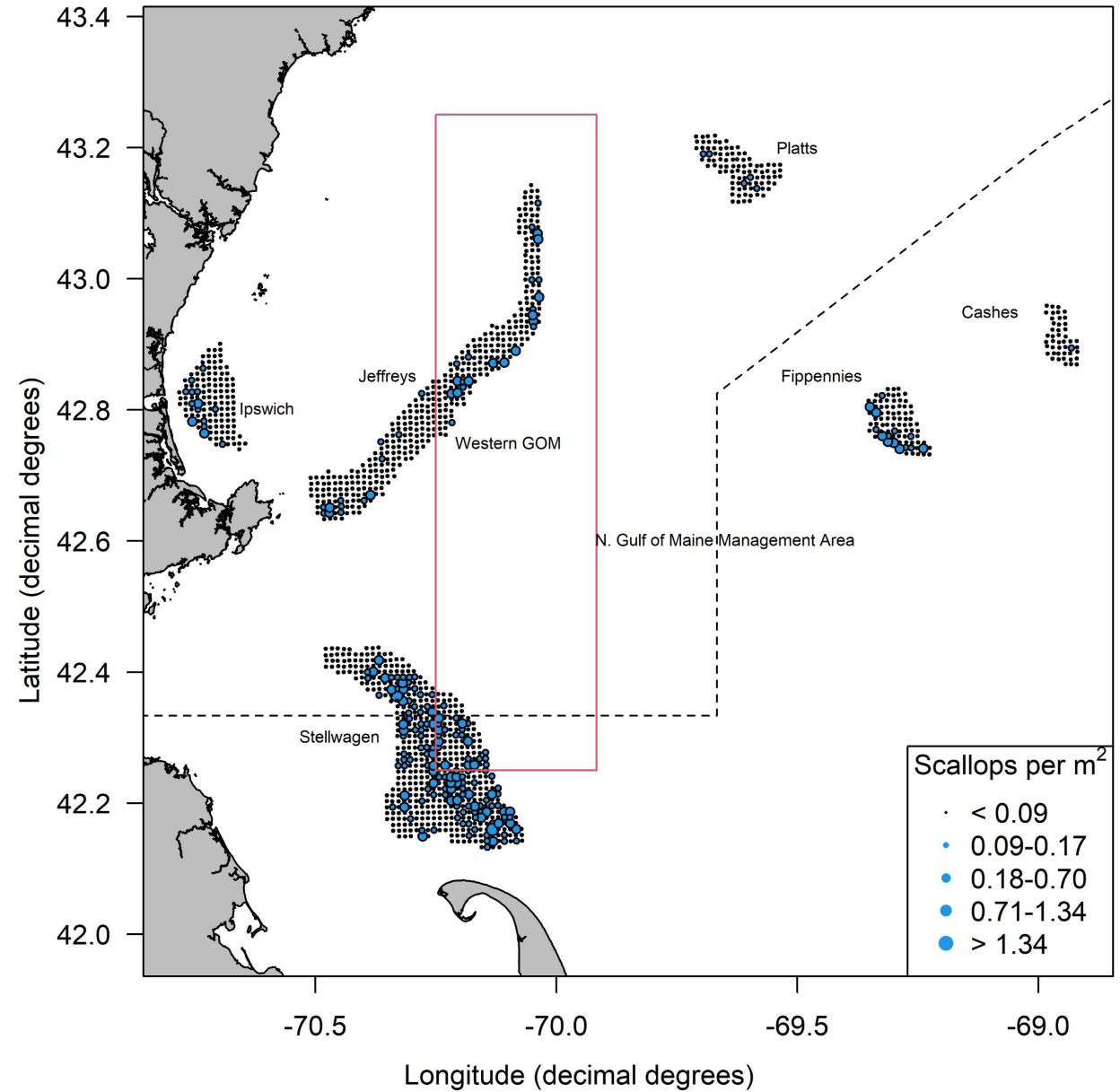
Pre-recruits (< 35 mm shell height)

2024

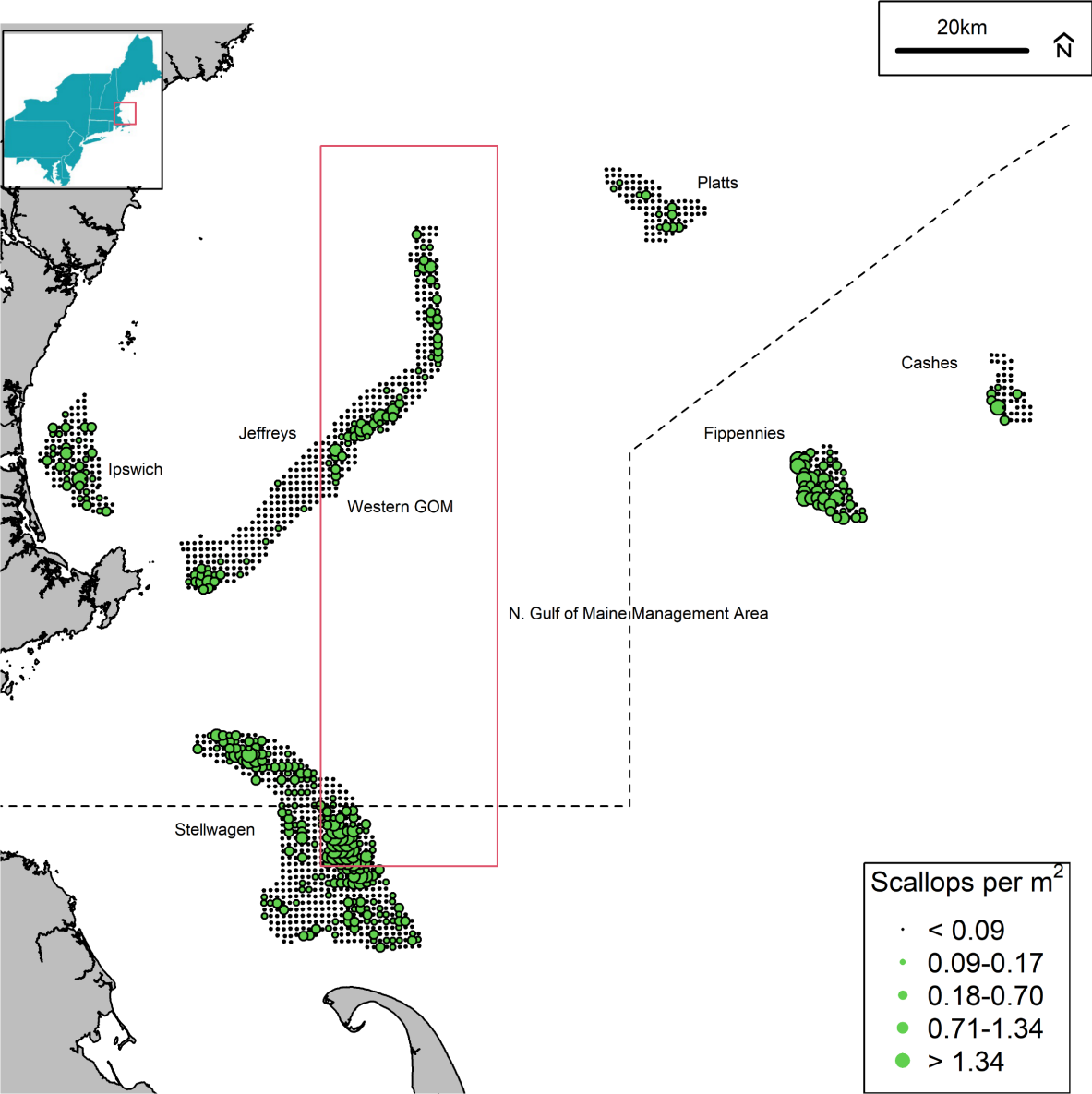


Recruits (35 - 75 mm shell height)

2025

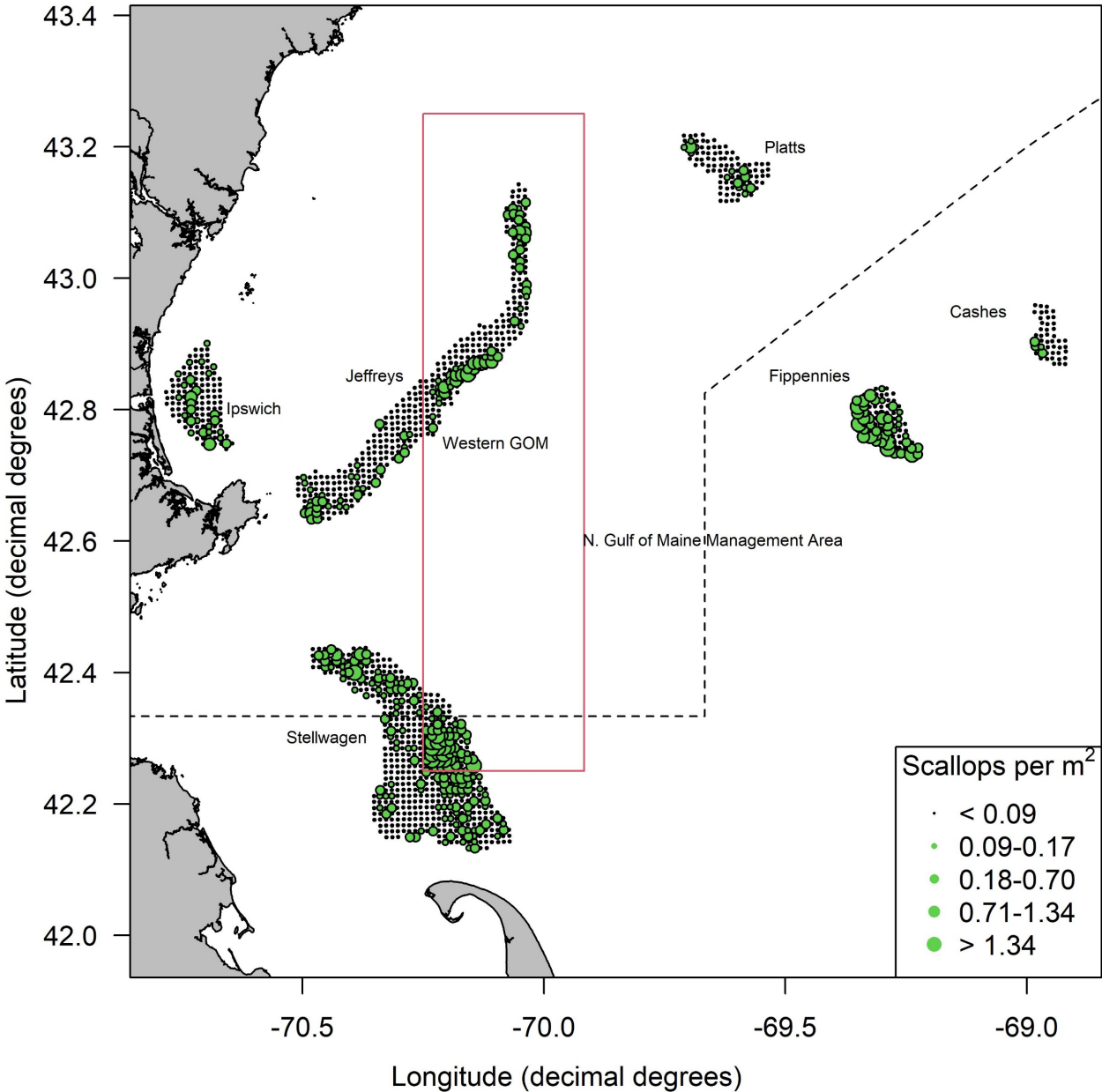


2024



Recruited (> 75 mm shell height)

2025



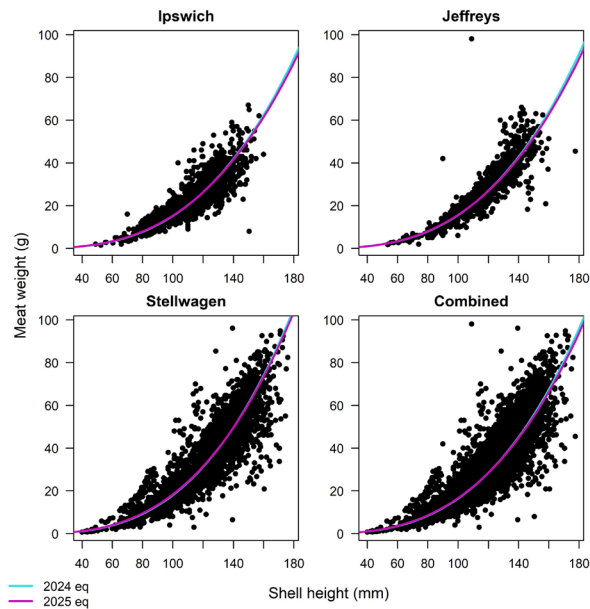
Shell height meat weight for Stellwagen Bank

DMR & SMAST (2016-2024) for all areas

$$W = \exp(-10.09 + 3.00 * \ln(\text{shell height}) - 0.239 * -0.0001 * \text{latitude})$$

DMR & SMAST (2016-2025) for all areas

$$W = \exp(-9.916 + 2.942 * \ln(\text{shell height}) - 0.2132 * \ln(\text{depth}) - 0.00003543 * \text{latitude})$$



	Biomass estimate using: DMR & SMAST 2016-2024	Biomass estimate using: DMR & SMAST 2016-2025
NGOM Stellwagen Bank		
Average meat weight (g)	23.4	23.3
Biomass (mt)	391	389
Standard error	53	52
Exploitable average meat weight (g)	31.6	31.3
Exploitable biomass (mt)	221	219
Exploitable standard error	30	29
Non-NGOM Stellwagen Bank (Stellwagen South)		
Average meat weight (g)	12.7	12.8
Biomass (mt)	295	297
Standard error	22	22
Exploitable average meat weight (g)	21.3	21.2
Exploitable biomass (mt)	128	128
Exploitable standard error	9	9

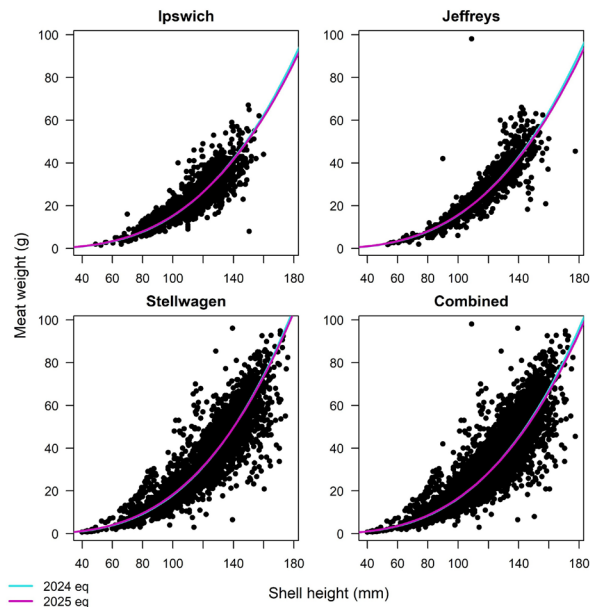
Shell height meat weight for Ipswich

DMR & SMAST (2016-2024) for all areas

$W = \exp(-10.09 + 3.00 * \ln(\text{shell height}) - 0.239 * -0.0001 * \text{latitude})$

DMR & SMAST (2016-2025) for all areas

$W = \exp(-9.916 + 2.942 * \ln(\text{shell height}) - 0.2132 * \ln(\text{depth}) - 0.00003543 * \text{latitude})$



	Biomass estimate using: DMR & SMAST 2016-2024	Biomass estimate using: DMR & SMAST 2016-2025
Ipswich Bank NGOM		
Average meat weight (g)	27.7	27.5
Biomass (mt)	131	130
Standard error	12	11
Exploitable average meat weight (g)	32.6	32.3
Exploitable biomass (mt)	75	75
Exploitable standard error	7	7
Non-NGOM Ipswich Bay (MA State Waters)		
Average meat weight (g)	13.5	13.5
Biomass (mt)	15	15
Standard error	2	2
Exploitable average meat weight (g)	23.3	23.1
Exploitable biomass (mt)	7	7
Exploitable standard error	1	1

Shell height meat weight for Jeffrey's Ledge

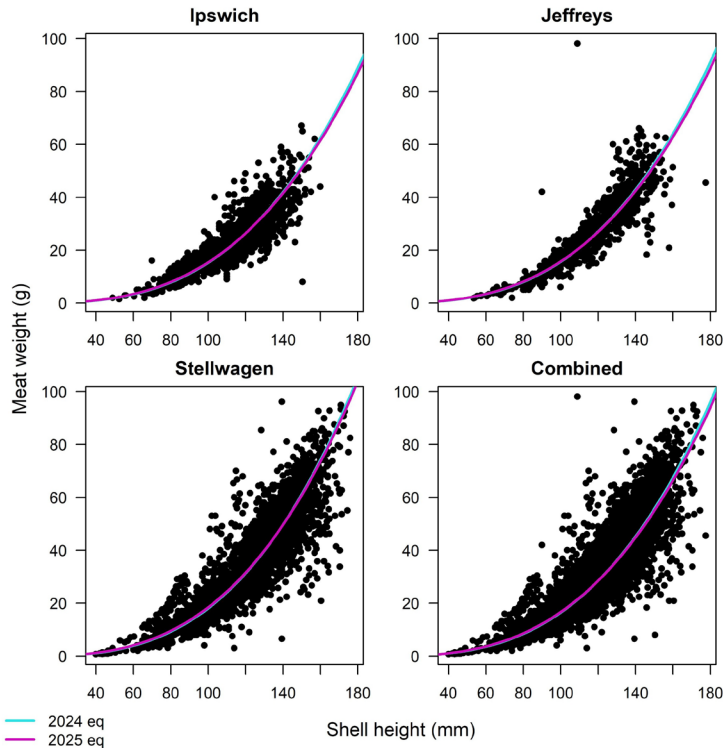
	Biomass estimate using: DMR & SMAST 2016-2023	Biomass estimate using: DMR & SMAST 2016-2024
Jeffrey's Ledge (outside WGOM)		
Average meat weight (g)	23.5	23.5
Biomass (mt)	187	188
Standard error	16	16
Exploitable average meat weight (g)	32.0	31.9
Exploitable biomass (mt)	114	113
Exploitable standard error	10	10

DMR & SMAST (2016-2024) for all areas

$$W = \exp(-10.09 + 3.00 * \ln(\text{shell height}) - 0.239 * -0.0001 * \text{latitude})$$

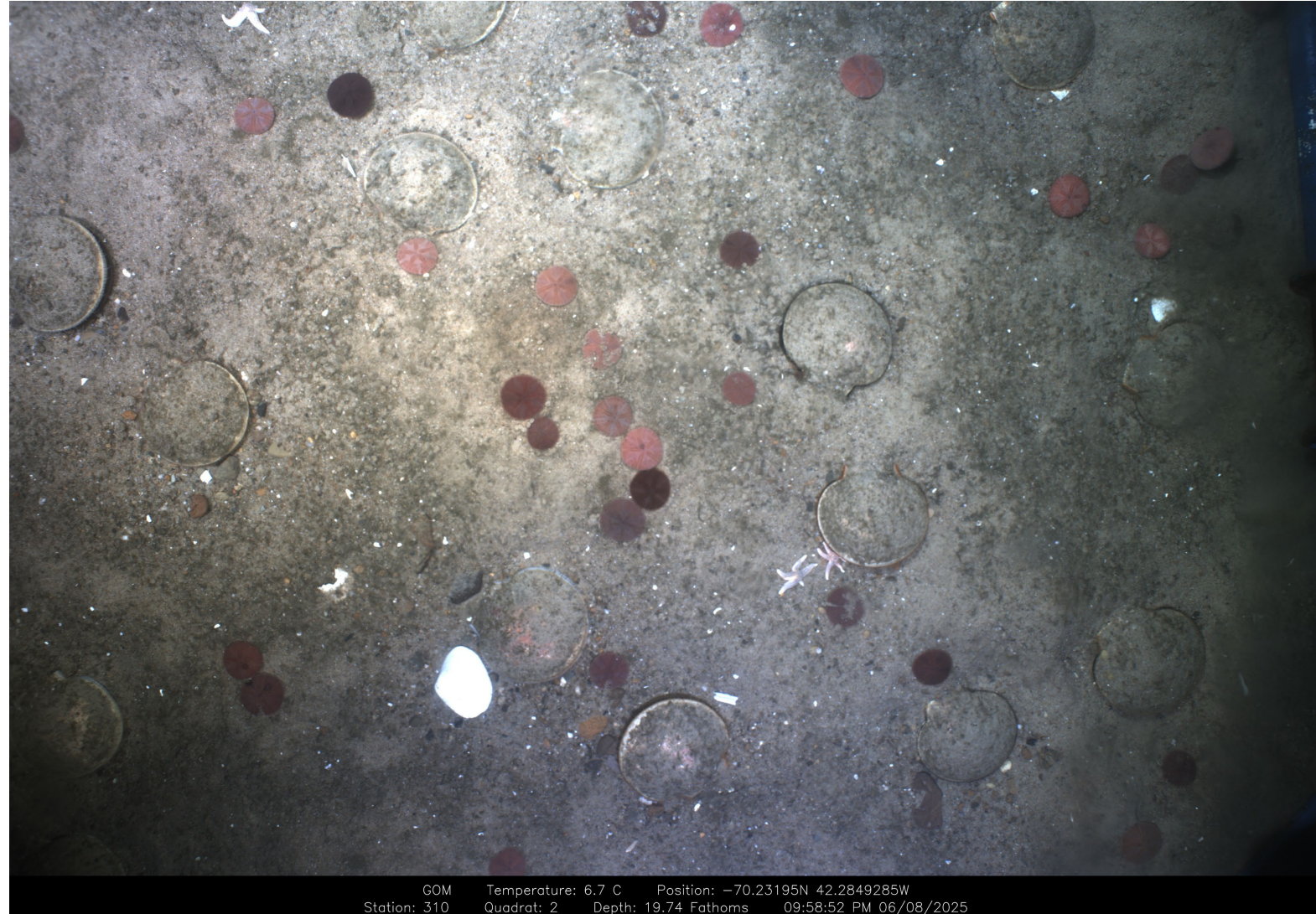
DMR & SMAST (2016-2025) for all areas

$$W = \exp(-9.916 + 2.942 * \ln(\text{shell height}) - 0.2132 * \ln(\text{depth}) - 0.00003543 * \text{latitude})$$



Acknowledgements

- RSA funding – thank you
- SMAST survey personnel and digitizers
- Electromechanica
- CVision AI
- Blue Fleet Welding
- New Bedford Ship Supply
- Captains and crew of F/V:
 - Atlantic
 - Horizon
 - Three Sons
 - Vigilance



GOM Temperature: 6.7 C Position: -70.23195N 42.2849285W
Station: 310 Quadrat: 2 Depth: 19.74 Fathoms 09:58:52 PM 06/08/2025