

**Results for the 2022 VIMS Industry Cooperative Surveys of the Mid-Atlantic,
Nantucket Lightship, Southern Flank, and Closed Area II Resource Areas**

Submitted to:
Sea Scallop Fishing Industry

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The Virginia Institute of Marine Science (VIMS) conducted high resolution sea scallop dredge surveys of the entire Mid-Atlantic (MAB) and portions of Georges Bank (GB) including the Nantucket Lightship (NL), the Southern Flank (SF), Closed Area II (CA) Extension, and CAII during May–June 2022 (Figure 1) . These surveys were funded by the Sea Scallop Research Set-Aside Program (RSA). Exploitable biomass for each survey is shown in Table 1 for each spatially explicit SAMS Area (Scallop Area Management Simulator). SAMS Areas represent management relevant spatial subunits of the resource and explicitly account for differences in recruitment, vital rates, and fishing effort in the forward projection of survey information. Maps of SAMS Areas are provided in Figures 2–3. At the time of the surveys, exploitable biomass estimated from the commercial dredge was 821 mt or 2 million pounds for the Elephant Truck (ET) SAMS Area. For open bottom in the Long Island (LI) SAMS Area, exploitable biomass was estimated at 5,586 mt or 12 million pounds. In the NL South Deep SAMS Area, the exploitable biomass was 1,373 mt or 3 million pounds. The exploitable biomass estimate for the CAII SW SAMS Area was 2,222 mt or 5 million pounds. The CAII SE SAMS Area estimate was 5,538 mt or 12 million pounds.

The MAB survey was conducted aboard two commercial vessels: *F/V Carolina Capes II* and *F/V Italian Princess* during May and June 2022. Each vessel completed one survey leg and occupied a total of 445 stations throughout the MAB survey area. The GB survey was conducted onboard the *F/V Celtic* in June 2022 and a total of 255 stations were completed. All vessels towed a NMFS 8-foot survey dredge and 14-foot Coonamessett Farm Turtle Deflector Dredge. While the comparison of catches between the survey dredge and the commercial dredge are informative on a relative basis, for the purposes of this report, we present only the catch data from the commercial dredges as this information is more applicable to the resource conditions that the industry is likely to encounter. Dredge data were obtained during 15-minute survey tows at 3.8-4.0 kts with a 3:1 scope to depth ratio.

Catch data in tabular form is shown in Table 2. The number of scallops caught in three size classes (<35 mm, 35–75 mm, and >75 mm) for each tow is shown in Figures 4–5. In Figures 6–7, the shell height frequency distribution from both dredges (survey and commercial) for the different surveys and SAMS Areas are shown.

Table 1: Exploitable biomass for scallops captured in the commercial dredges during the VIMS/Industry cooperative surveys by survey and SAMS Area.

Survey	SAMS Area	Exploitable Biomass (mt)	95% CI Lower Bound	95% CI Upper Bound
MAB	BI	325.36	265.13	385.59
	DMV	0.65	0.18	1.12
	ET	821.24	716.89	925.59
	HCS	383.70	298.09	469.31
	LI	5,586.36	4,904.53	6,268.19
	MAB_Nearshore	144.60	9.14	280.06
	NYB	598.35	455.74	740.96
	NYB_Closure	4,626.65	3,697.96	5,555.34
	VIR	0.11	0.00	0.23
	GB	CAII_Access_SE	5,537.93	4,080.08
CAII_Access_SW		2,221.73	1,467.42	2,976.04
CAII_Ext		5,628.08	3,834.11	7,422.05
NLS_North		733.64	558.38	908.90
NLS_South_Deep		1,373.37	669.59	2,077.15
NLS_West		130.37	90.25	170.49
SF		4,900.93	3,423.60	6,378.26

Table 2: Catch data for the commercial dredges from the VIMS/Industry cooperative surveys. Scallop density is scallops per m^{-2} . Nematode prevalence (percentage of scallops sampled at a given station infected with nematodes) is also provided for each station.

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202201001	36	30.15	74	46.62	0	0.00	0.00	0.00	0
MAB	202201002	36	41.53	74	49.25	0	0.00	0.00	0.00	0
MAB	202201003	36	44.80	74	44.76	0	0.00	0.00	0.00	0
MAB	202201004	36	49.88	74	50.61	0	0.00	0.00	0.00	0
MAB	202201005	36	55.22	74	48.58	0	0.00	0.00	0.00	0
MAB	202201006	36	56.61	74	44.03	0	0.00	0.00	0.00	0
MAB	202201007	37	0.07	74	45.88	0	0.00	0.00	0.00	0
MAB	202201008	37	1.41	74	50.18	0	0.00	0.00	0.00	0
MAB	202201009	37	2.17	74	54.66	0	0.00	0.01	0.00	0
MAB	202201010	37	8.09	74	52.40	0	0.00	0.00	0.00	0
MAB	202201011	37	7.62	74	49.30	0	0.00	0.00	0.00	0
MAB	202201012	37	10.79	74	42.25	0	0.00	0.00	0.00	0
MAB	202201013	37	13.05	74	38.96	0	0.00	0.00	0.00	0
MAB	202201014	37	14.06	74	45.28	0	0.00	0.01	0.00	0
MAB	202201015	37	18.69	74	47.81	0	0.00	0.00	0.00	0
MAB	202201016	37	21.52	74	45.48	0	0.00	0.00	0.00	0
MAB	202201017	37	22.69	74	39.13	0	0.00	0.00	0.00	0
MAB	202201018	37	25.56	74	31.74	0	0.00	0.00	0.00	0
MAB	202201019	37	26.27	74	39.16	0	0.00	0.00	0.00	0
MAB	202201020	37	25.95	74	41.75	0	0.00	0.00	0.00	0
MAB	202201021	37	26.53	74	47.15	0	0.00	0.00	0.00	0
MAB	202201022	37	29.54	74	43.39	0	0.00	0.00	0.00	0
MAB	202201023	37	29.61	74	35.58	0	0.00	0.00	0.00	0
MAB	202201024	37	33.80	74	21.61	0	0.00	0.00	0.00	0
MAB	202201025	37	35.25	74	30.65	0	0.00	0.00	0.00	0
MAB	202201026	37	35.47	74	41.38	0	0.00	0.00	0.00	0
MAB	202201027	37	33.88	74	44.73	0	0.00	0.00	0.00	0
MAB	202201028	37	34.54	74	48.45	0	0.00	0.01	0.00	0
MAB	202201029	37	41.45	74	47.57	0	0.00	0.00	0.00	0
MAB	202201031	37	39.51	74	42.10	0	0.00	0.00	0.00	0
MAB	202201032	37	40.43	74	38.60	0	0.00	0.00	0.00	0
MAB	202201033	37	38.03	74	27.32	0	0.00	0.00	0.00	0
MAB	202201035	37	42.95	74	28.84	0	0.00	0.00	0.00	0
MAB	202201036	37	42.86	74	31.58	0	0.00	0.00	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202201037	37	44.55	74	40.91	0	0.00	0.00	0.00	0
MAB	202201038	37	45.61	74	37.88	0	0.00	0.00	0.00	0
MAB	202201039	37	48.65	74	35.39	0	0.00	0.00	0.00	0
MAB	202201040	37	47.78	74	28.26	0	0.00	0.00	0.00	0
MAB	202201041	37	49.78	74	29.88	0	0.00	0.00	0.00	0
MAB	202201042	37	52.52	74	29.84	0	0.00	0.00	0.00	0
MAB	202201043	37	52.28	74	26.01	0	0.00	0.00	0.00	0
MAB	202201044	37	53.40	74	25.86	0	0.00	0.00	0.00	0
MAB	202201045	37	53.73	74	18.72	0	0.00	0.00	0.00	0
MAB	202201046	37	53.32	74	17.08	0	0.00	0.00	0.00	0
MAB	202201047	37	56.84	74	15.90	0	0.00	0.00	0.00	0
MAB	202201048	38	0.61	74	6.84	0	0.00	0.00	0.00	0
MAB	202201049	38	0.30	74	12.91	0	0.01	0.01	0.00	50
MAB	202201050	38	1.53	74	21.23	0	0.00	0.00	0.00	0
MAB	202201051	37	57.07	74	24.29	0	0.00	0.00	0.00	0
MAB	202201052	37	58.28	74	25.40	0	0.00	0.00	0.00	0
MAB	202201053	37	57.88	74	29.12	0	0.00	0.00	0.00	0
MAB	202201054	37	55.87	74	31.87	0	0.00	0.00	0.00	0
MAB	202201055	37	54.41	74	37.44	0	0.00	0.00	0.00	0
MAB	202201056	37	53.55	74	42.29	0	0.00	0.01	0.00	0
MAB	202201057	37	55.12	74	48.52	0	0.00	0.00	0.00	0
MAB	202201058	37	58.95	74	42.73	0	0.00	0.00	0.00	0
MAB	202201059	38	3.40	74	48.05	0	0.00	0.00	0.00	0
MAB	202201060	38	5.77	74	34.44	0	0.00	0.00	0.00	0
MAB	202201061	38	7.87	74	34.30	0	0.00	0.00	0.00	0
MAB	202201062	38	11.30	74	28.87	0	0.00	0.00	0.00	0
MAB	202201063	38	16.71	74	30.95	0	0.00	0.00	0.00	0
MAB	202201064	38	10.88	74	22.18	0	0.00	0.00	0.00	0
MAB	202201065	38	10.54	74	18.91	1	0.09	0.01	0.00	0
MAB	202201066	38	9.49	74	13.82	0	0.00	0.00	0.00	0
MAB	202201067	38	10.48	74	2.70	43	2.81	0.40	0.01	13
MAB	202201068	38	12.04	73	58.37	50	2.69	0.33	0.01	20
MAB	202201069	38	14.25	73	59.84	11	0.90	0.15	0.00	0
MAB	202201070	38	13.99	74	4.57	88	6.64	1.10	0.02	20
MAB	202201071	38	13.41	74	12.49	2	0.18	0.01	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202201072	38	15.76	74	15.31	26	2.58	0.75	0.00	47
MAB	202201073	38	16.29	74	12.01	12	1.07	0.15	0.00	27
MAB	202201075	38	17.57	74	0.46	3	0.17	0.01	0.00	67
MAB	202201076	38	19.39	73	55.44	1	0.04	0.01	0.00	0
MAB	202201077	38	21.84	73	50.82	0	0.00	0.00	0.00	0
MAB	202201078	38	23.86	73	52.45	65	4.51	0.75	0.01	87
MAB	202201079	38	22.51	73	56.81	43	3.35	0.50	0.01	80
MAB	202201080	38	22.67	74	2.50	30	2.16	0.25	0.01	87
MAB	202201081	38	22.46	74	5.65	103	7.52	1.20	0.02	87
MAB	202201082	38	21.61	74	10.17	21	1.68	0.20	0.00	80
MAB	202201083	38	20.29	74	15.84	9	0.76	0.10	0.00	40
MAB	202201084	38	22.80	74	17.21	6	0.50	0.01	0.00	53
MAB	202201085	38	24.49	74	12.65	22	1.90	0.20	0.00	60
MAB	202201086	38	23.69	74	9.90	45	3.45	0.60	0.01	67
MAB	202201087	38	25.29	74	3.02	16	1.16	0.10	0.00	87
MAB	202201088	38	25.92	73	56.26	83	6.10	1.00	0.02	80
MAB	202201090	38	26.27	73	38.82	1	0.07	0.01	0.00	17
MAB	202201091	38	30.97	73	26.95	0	0.00	0.00	0.00	0
MAB	202201092	38	31.40	73	31.26	0	0.00	0.00	0.00	0
MAB	202201093	38	31.04	73	37.71	24	1.50	0.20	0.00	60
MAB	202201094	38	29.54	73	48.68	50	3.99	0.70	0.01	75
MAB	202201095	38	28.30	73	51.54	34	2.47	0.35	0.01	40
MAB	202201096	38	27.13	73	58.99	28	2.35	0.30	0.01	47
MAB	202201097	38	26.65	74	6.17	35	2.76	0.75	0.01	27
MAB	202201098	38	27.08	74	10.46	19	1.95	0.50	0.00	20
MAB	202201099	38	28.52	74	13.47	22	2.22	0.33	0.00	7
MAB	202201100	38	31.23	74	11.92	51	4.73	1.00	0.01	20
MAB	202201101	38	31.70	74	6.45	44	3.41	0.75	0.01	0
MAB	202201102	38	29.72	74	0.94	23	1.80	0.33	0.00	0
MAB	202201103	38	31.71	73	55.63	19	1.45	0.25	0.00	17
MAB	202201104	38	31.77	73	51.85	24	1.76	0.20	0.00	73
MAB	202201105	38	33.09	73	49.14	22	1.70	0.10	0.00	73
MAB	202201106	38	33.46	73	43.52	70	5.02	1.00	0.01	86
MAB	202201107	38	34.96	73	40.18	129	8.68	1.25	0.02	13
MAB	202201108	38	35.97	73	46.84	33	2.48	0.50	0.01	40

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202201109	38	34.27	73	52.41	3	0.22	0.01	0.00	40
MAB	202201110	38	33.58	73	58.95	55	3.38	0.20	0.01	67
MAB	202201111	38	34.66	74	4.15	39	3.37	0.50	0.01	93
MAB	202201112	38	35.28	74	7.85	9	0.81	0.20	0.00	83
MAB	202201113	38	35.65	74	11.25	24	2.53	0.20	0.00	62
MAB	202201114	38	37.46	74	6.56	22	2.09	0.20	0.00	67
MAB	202201115	38	36.96	74	2.21	19	1.54	0.20	0.00	47
MAB	202201116	38	39.31	73	57.23	83	6.22	0.90	0.02	27
MAB	202201117	38	40.28	73	51.79	22	1.67	0.20	0.00	13
MAB	202201118	38	40.10	73	48.58	37	3.06	0.20	0.01	20
MAB	202201119	38	39.48	73	46.39	31	2.51	0.20	0.01	31
MAB	202201120	38	39.33	73	43.70	42	3.02	0.50	0.01	0
MAB	202201121	38	40.94	73	39.79	39	2.86	0.50	0.01	0
MAB	202201122	38	42.08	73	36.97	24	1.60	0.50	0.00	0
MAB	202201123	38	41.46	73	30.43	22	1.53	0.33	0.00	0
MAB	202201124	38	39.21	73	21.94	0	0.00	0.00	0.00	0
MAB	202201125	38	45.13	73	20.31	0	0.00	0.00	0.00	0
MAB	202201126	38	44.55	73	26.79	0	0.00	0.00	0.00	0
MAB	202201127	38	43.74	73	32.70	4	0.29	0.15	0.00	0
MAB	202201128	38	45.90	73	35.68	27	2.11	0.33	0.01	0
MAB	202201129	38	46.00	73	44.47	18	1.42	0.25	0.00	0
MAB	202201130	38	49.35	73	41.73	37	2.85	0.75	0.01	0
MAB	202201131	38	49.69	73	38.72	26	1.78	0.35	0.01	0
MAB	202201132	38	50.57	73	34.07	29	2.03	0.33	0.01	0
MAB	202201133	38	49.04	73	28.37	3	0.16	0.01	0.00	75
MAB	202201134	38	51.94	73	15.93	0	0.00	0.00	0.00	0
MAB	202201135	38	53.25	73	26.67	0	0.00	0.00	0.00	0
MAB	202201136	38	52.26	73	30.51	0	0.00	0.00	0.00	0
MAB	202201137	38	52.62	73	37.68	34	3.06	0.20	0.01	13
MAB	202201138	38	54.26	73	44.40	6	0.56	0.01	0.00	38
MAB	202201139	38	59.82	73	37.45	60	4.63	0.60	0.01	13
MAB	202201140	38	57.31	73	19.52	27	1.85	0.20	0.01	40
MAB	202201141	38	59.74	73	6.48	0	0.00	0.00	0.00	0
MAB	202201142	38	56.29	72	59.59	0	0.00	0.00	0.00	0
MAB	202201143	39	1.61	72	54.22	0	0.00	0.00	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202201144	39	3.07	72	51.50	0	0.00	0.00	0.00	0
MAB	202201145	39	4.82	73	5.82	25	1.64	0.25	0.01	20
MAB	202201146	39	3.34	73	8.62	79	5.69	1.00	0.02	19
MAB	202201147	39	2.74	73	15.34	10	0.60	0.33	0.00	0
MAB	202201148	39	3.07	73	22.07	34	2.17	0.40	0.01	0
MAB	202201149	39	3.25	73	26.58	55	4.01	0.75	0.01	0
MAB	202201150	39	5.85	73	25.65	38	2.71	0.45	0.01	0
MAB	202201151	39	5.37	73	23.33	65	4.47	0.75	0.01	0
MAB	202201152	39	5.37	73	12.79	22	1.38	0.25	0.00	0
MAB	202201153	39	6.87	73	9.81	45	3.07	0.75	0.01	0
MAB	202201154	39	11.48	73	10.25	28	1.85	0.24	0.01	0
MAB	202201155	39	14.25	73	13.15	44	2.76	0.75	0.01	20
MAB	202201156	39	12.44	73	7.49	17	1.12	0.30	0.00	33
MAB	202201157	39	9.92	73	3.98	69	4.45	0.80	0.01	43
MAB	202201159	39	10.19	72	58.79	57	3.63	0.80	0.01	67
MAB	202201160	39	10.34	72	56.75	2	0.10	0.01	0.00	40
MAB	202201161	39	12.84	72	46.25	0	0.00	0.00	0.00	0
MAB	202201162	39	18.10	72	47.57	1	0.02	0.01	0.00	50
MAB	202201163	39	18.50	72	52.33	0	0.00	0.00	0.00	0
MAB	202201164	39	16.99	72	56.51	10	0.52	0.05	0.00	20
MAB	202201165	39	17.58	73	1.29	50	2.65	0.50	0.01	20
MAB	202201166	39	20.89	73	3.22	67	4.86	0.80	0.01	27
MAB	202201167	39	23.24	73	1.21	60	3.88	0.70	0.01	31
MAB	202201168	39	23.80	72	58.19	69	4.50	0.60	0.01	27
MAB	202201169	39	21.76	72	54.24	24	1.40	0.30	0.00	40
MAB	202201170	39	23.66	72	51.87	26	1.66	0.22	0.00	0
MAB	202201171	39	21.47	72	41.16	0	0.00	0.00	0.00	0
MAB	202201173	39	28.20	72	46.38	11	0.68	0.10	0.00	0
MAB	202201174	39	26.20	72	48.24	27	1.81	0.33	0.01	0
MAB	202201175	39	26.54	72	53.71	35	2.33	0.60	0.01	0
MAB	202201176	39	27.06	72	57.82	119	8.12	1.20	0.02	0
MAB	202201177	39	31.19	72	54.22	101	8.18	1.10	0.02	0
MAB	202201178	39	30.29	72	49.49	47	3.20	0.50	0.01	0
MAB	202201179	39	31.43	72	44.99	93	6.23	1.00	0.02	7
MAB	202201180	39	33.35	72	48.79	100	6.68	1.66	0.02	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202201181	39	34.91	72	52.31	100	6.77	1.00	0.02	0
MAB	202201182	39	36.18	72	46.92	1233	72.87	9.10	0.24	0
MAB	202201183	39	39.26	72	44.48	82	5.73	0.85	0.02	0
MAB	202201184	39	41.44	72	39.77	15	0.85	0.10	0.00	27
MAB	202201185	39	44.63	72	40.55	75	4.93	0.80	0.01	27
MAB	202201186	39	43.82	72	46.92	13	1.05	0.20	0.00	55
MAB	202201187	39	43.22	72	50.74	8	0.63	0.10	0.00	60
MAB	202201188	39	42.57	72	50.82	1	0.07	0.01	0.00	50
MAB	202201189	39	40.24	72	48.12	58	3.80	0.80	0.01	53
MAB	202201190	39	39.33	72	52.48	108	6.84	1.00	0.02	29
MAB	202201191	39	39.92	72	57.05	116	6.20	2.20	0.02	8
MAB	202201192	39	36.51	72	56.28	131	8.29	1.20	0.03	7
MAB	202201193	39	33.66	72	57.98	225	13.71	2.01	0.05	33
MAB	202201194	39	32.71	73	1.22	106	5.90	1.30	0.02	33
MAB	202201195	39	33.74	73	3.68	10	0.72	0.10	0.00	13
MAB	202201196	39	30.34	73	4.36	107	6.53	1.00	0.02	31
MAB	202201198	39	28.02	73	1.58	32	1.86	0.30	0.01	25
MAB	202201199	39	29.17	73	6.27	35	2.88	0.40	0.01	53
MAB	202201200	39	29.38	73	8.00	42	3.87	0.60	0.01	23
MAB	202201201	39	29.23	73	9.84	11	0.99	0.10	0.00	0
MAB	202201202	39	27.27	73	13.63	0	0.00	0.00	0.00	0
MAB	202201203	39	25.07	73	14.54	84	7.13	1.00	0.02	0
MAB	202201204	39	24.70	73	12.21	0	0.00	0.00	0.00	0
MAB	202201205	39	22.35	73	11.02	74	5.77	1.00	0.01	0
MAB	202201206	39	20.82	73	15.65	60	5.09	0.90	0.01	0
MAB	202201207	39	21.85	73	18.85	118	11.31	1.50	0.02	0
MAB	202201208	39	24.18	73	24.48	3	0.29	0.01	0.00	0
MAB	202201209	39	22.00	73	32.79	2	0.17	0.01	0.00	0
MAB	202201210	39	20.43	73	38.40	0	0.00	0.01	0.00	0
MAB	202201211	39	18.27	73	41.81	0	0.00	0.00	0.00	0
MAB	202201212	39	12.86	73	35.74	1	0.10	0.01	0.00	0
MAB	202201213	39	11.26	73	23.13	20	1.74	0.15	0.00	0
MAB	202201214	39	10.16	73	21.91	94	7.56	1.05	0.02	43
MAB	202201215	39	7.31	73	35.58	96	7.43	1.10	0.02	27
MAB	202201216	39	5.93	73	38.94	1	0.08	0.01	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202201217	39	3.11	73	43.23	0	0.00	0.00	0.00	0
MAB	202201218	39	4.77	73	51.40	0	0.00	0.00	0.00	0
MAB	202201219	38	59.03	73	51.31	0	0.00	0.00	0.00	0
MAB	202201220	38	54.64	73	51.28	1	0.09	0.01	0.00	0
MAB	202201221	38	49.47	73	54.12	1	0.10	0.01	0.00	0
MAB	202201222	38	43.91	73	53.13	18	1.58	0.20	0.00	43
MAB	202201223	38	42.99	73	57.71	40	3.54	0.40	0.01	40
MAB	202201224	38	46.55	74	4.15	11	1.14	0.20	0.00	67
MAB	202201225	38	51.20	74	5.38	1	0.10	0.01	0.00	0
MAB	202201226	38	49.51	74	8.51	0	0.00	0.00	0.00	0
MAB	202201227	38	46.90	74	9.97	0	0.00	0.00	0.00	0
MAB	202201228	38	44.53	74	11.95	0	0.00	0.00	0.00	0
MAB	202201229	38	35.05	74	25.35	0	0.00	0.00	0.00	0
MAB	202202001	39	26.13	73	32.41	6	0.40	0.05	0.00	12
MAB	202202002	39	28.68	73	26.95	1	0.04	0.01	0.00	0
MAB	202202003	39	31.24	73	21.08	0	0.00	0.00	0.00	0
MAB	202202004	39	35.11	73	15.29	29	2.89	0.30	0.01	33
MAB	202202005	39	35.61	73	8.67	58	4.98	0.70	0.01	0
MAB	202202007	39	39.16	73	4.04	146	10.67	1.40	0.03	0
MAB	202202008	39	40.68	73	8.18	242	17.48	2.30	0.05	13
MAB	202202010	39	42.29	73	0.69	51	3.87	0.60	0.01	6
MAB	202202011	39	43.75	72	56.04	283	17.82	4.25	0.05	20
MAB	202202013	39	44.84	72	59.20	1697	90.63	19.00	0.32	0
MAB	202202014	39	46.03	73	3.22	428	26.47	4.10	0.08	0
MAB	202202015	39	44.31	73	6.43	248	21.03	2.75	0.05	0
MAB	202202017	39	47.29	73	8.22	224	14.92	1.90	0.04	0
MAB	202202018	39	48.88	73	6.04	1176	65.79	11.60	0.23	0
MAB	202202019	39	47.82	73	4.27	620	33.32	6.00	0.12	0
MAB	202202020	39	48.78	72	52.59	39	3.01	0.50	0.01	0
MAB	202202022	39	52.00	72	48.94	49	4.56	0.80	0.01	0
MAB	202202023	39	50.72	72	45.10	87	6.29	1.00	0.02	0
MAB	202202024	39	50.25	72	41.65	88	6.61	1.00	0.02	0
MAB	202202025	39	48.38	72	35.41	88	6.38	1.15	0.02	0
MAB	202202026	39	48.39	72	31.66	80	5.84	1.66	0.02	13
MAB	202202027	39	48.56	72	28.26	26	1.72	0.33	0.00	7

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202202030	39	52.46	72	29.90	221	15.64	2.10	0.04	0
MAB	202202031	39	54.14	72	37.68	64	4.94	0.80	0.01	0
MAB	202202032	39	56.56	72	41.64	95	7.20	1.10	0.02	0
MAB	202202033	39	56.35	72	44.26	62	5.02	0.80	0.01	13
MAB	202202034	39	57.56	72	48.09	86	6.79	1.00	0.02	7
MAB	202202035	40	2.04	72	49.24	99	7.84	1.10	0.02	13
MAB	202202036	40	2.44	72	43.57	101	7.58	1.05	0.02	0
MAB	202202038	39	59.96	72	37.65	234	14.25	1.90	0.05	0
MAB	202202039	39	57.34	72	33.52	432	26.72	4.00	0.09	7
MAB	202202040	39	54.99	72	26.62	42	3.25	0.60	0.01	20
MAB	202202041	39	59.29	72	22.94	8	0.51	0.01	0.00	0
MAB	202202042	40	2.02	72	28.04	37	3.06	0.50	0.01	13
MAB	202202043	40	4.49	72	34.56	173	14.36	1.90	0.03	0
MAB	202202044	40	10.79	72	37.54	35	3.27	0.40	0.01	27
MAB	202202046	40	4.31	72	29.74	105	7.45	1.10	0.02	0
MAB	202202047	40	5.99	72	22.25	62	4.90	1.00	0.01	0
MAB	202202049	40	5.77	72	12.23	2	0.13	0.01	0.00	0
MAB	202202050	40	3.91	72	5.28	0	0.00	0.00	0.00	0
MAB	202202051	40	6.59	72	3.29	5	0.19	0.01	0.00	0
MAB	202202052	40	9.20	72	14.08	218	15.76	2.40	0.04	0
MAB	202202053	40	12.55	72	5.62	31	1.73	0.50	0.01	0
MAB	202202057	40	15.94	71	59.64	78	5.53	0.85	0.01	0
MAB	202202058	40	17.86	72	6.57	85	6.29	0.85	0.02	0
MAB	202202062	40	21.91	72	10.74	17	1.50	0.10	0.00	7
MAB	202202064	40	27.85	72	6.94	53	4.54	0.70	0.01	7
MAB	202202065	40	21.69	72	5.94	72	5.57	1.00	0.01	13
MAB	202202066	40	19.57	72	3.26	221	18.13	2.25	0.04	0
MAB	202202067	40	22.05	71	52.37	1	0.09	0.01	0.00	0
MAB	202202068	40	22.82	71	46.78	0	0.00	0.00	0.00	0
MAB	202202069	40	26.07	71	42.14	0	0.00	0.00	0.00	0
MAB	202202070	40	30.10	71	46.06	0	0.00	0.00	0.00	0
MAB	202202071	40	32.60	71	49.83	0	0.00	0.00	0.00	0
MAB	202202072	40	31.50	71	58.57	53	3.66	0.60	0.01	0
MAB	202202073	40	30.70	72	2.47	119	7.92	1.00	0.02	7
MAB	202202074	40	35.59	72	3.69	88	8.10	1.00	0.02	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202202075	40	39.15	72	11.66	4	0.47	0.05	0.00	17
MAB	202202076	40	41.02	72	13.47	0	0.00	0.00	0.00	0
MAB	202202077	40	41.24	72	9.19	6	0.56	0.10	0.00	0
MAB	202202078	40	40.29	72	4.41	199	18.91	2.35	0.04	0
MAB	202202079	40	40.28	71	58.73	296	22.76	3.00	0.05	0
MAB	202202080	40	41.70	71	55.60	374	27.66	3.50	0.07	0
MAB	202202081	40	42.48	71	51.84	72	6.01	0.80	0.01	0
MAB	202202082	40	43.33	71	48.88	180	15.37	1.90	0.03	0
MAB	202202083	40	44.66	71	46.26	62	5.49	0.88	0.01	0
MAB	202202085	40	45.58	71	48.43	198	14.04	1.75	0.04	0
MAB	202202086	40	47.35	71	46.66	176	14.49	1.75	0.03	0
MAB	202202088	40	50.01	71	50.30	27	2.31	0.30	0.00	0
MAB	202202089	40	53.60	71	41.70	30	2.54	0.50	0.01	0
MAB	202202090	40	53.46	71	38.93	131	8.13	1.20	0.02	0
MAB	202202091	40	55.76	71	36.75	180	12.44	1.50	0.03	0
MAB	202202092	40	54.98	71	32.17	29	2.31	0.40	0.01	0
MAB	202202093	40	57.86	71	31.62	21	1.77	0.20	0.00	0
MAB	202202094	40	58.66	71	28.90	60	4.52	0.60	0.01	0
MAB	202202095	40	57.98	71	27.46	149	12.51	1.50	0.03	0
MAB	202202096	40	58.87	71	24.43	72	6.05	0.80	0.01	13
MAB	202202097	40	57.80	71	22.84	105	7.91	1.00	0.02	20
MAB	202202098	40	56.45	71	20.06	55	4.26	0.50	0.01	27
MAB	202202099	40	59.69	71	19.29	28	2.52	0.20	0.01	7
MAB	202202100	41	3.76	71	21.52	117	9.51	1.10	0.02	0
MAB	202202101	41	4.01	71	24.26	79	6.36	0.80	0.02	0
MAB	202202102	41	2.66	71	26.07	56	4.71	0.70	0.01	0
MAB	202202103	41	1.74	71	27.67	48	4.18	0.40	0.01	20
MAB	202202104	41	1.18	71	31.25	41	3.50	0.40	0.01	20
MAB	202202105	41	1.45	71	33.84	55	4.79	0.80	0.01	20
MAB	202202106	41	1.79	71	37.93	11	0.88	0.20	0.00	9
MAB	202202107	41	4.38	71	36.14	3	0.29	0.05	0.00	0
MAB	202202108	41	5.18	71	39.33	2	0.17	0.01	0.00	0
MAB	202202109	41	2.32	71	42.16	8	0.65	0.10	0.00	8
MAB	202202110	41	0.37	71	41.99	37	3.17	0.30	0.01	0
MAB	202202111	40	58.40	71	39.15	31	2.63	0.30	0.01	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202202112	40	56.17	71	39.50	40	3.27	0.60	0.01	0
MAB	202202113	40	56.17	71	52.02	1	0.08	0.01	0.00	0
MAB	202202114	40	54.46	71	57.50	1	0.04	0.01	0.00	0
MAB	202202115	40	54.47	72	3.49	0	0.00	0.01	0.00	0
MAB	202202116	40	50.89	72	2.02	22	1.70	0.25	0.00	0
MAB	202202117	40	49.29	71	58.14	17	1.50	0.20	0.00	0
MAB	202202118	40	47.84	72	1.76	18	1.16	0.20	0.00	0
MAB	202202119	40	44.90	72	0.51	33	2.85	0.30	0.01	0
MAB	202202120	40	46.97	72	4.70	11	1.05	0.18	0.00	0
MAB	202202121	40	44.96	72	11.41	1	0.09	0.01	0.00	0
MAB	202202122	40	47.35	72	14.86	0	0.00	0.00	0.00	0
MAB	202202123	40	50.28	72	15.90	0	0.00	0.00	0.00	0
MAB	202202124	40	49.49	72	18.29	0	0.00	0.00	0.00	0
MAB	202202125	40	43.12	72	20.59	1	0.12	0.01	0.00	0
MAB	202202126	40	43.22	72	26.65	0	0.00	0.00	0.00	0
MAB	202202127	40	42.06	72	37.11	0	0.00	0.00	0.00	0
MAB	202202128	40	37.55	72	35.42	4	0.37	0.05	0.00	0
MAB	202202129	40	37.55	72	30.45	5	0.48	0.05	0.00	20
MAB	202202130	40	37.52	72	21.18	123	10.84	1.25	0.02	0
MAB	202202131	40	33.80	72	24.46	41	2.87	0.40	0.01	7
MAB	202202132	40	33.65	72	21.52	27	2.26	0.30	0.01	20
MAB	202202133	40	33.55	72	12.45	123	13.96	1.80	0.02	0
MAB	202202134	40	31.17	72	18.59	31	2.93	0.30	0.01	20
MAB	202202135	40	30.98	72	22.39	29	2.31	0.25	0.01	0
MAB	202202136	40	29.71	72	26.45	104	7.85	1.00	0.02	0
MAB	202202137	40	27.84	72	20.84	120	13.18	1.90	0.02	0
MAB	202202138	40	26.12	72	14.67	15	1.21	0.15	0.00	21
MAB	202202139	40	24.89	72	17.84	16	1.22	0.20	0.00	7
MAB	202202140	40	23.68	72	27.39	203	16.57	2.00	0.04	0
MAB	202202141	40	24.65	72	30.11	163	12.75	1.50	0.03	0
MAB	202202142	40	26.65	72	28.97	150	12.20	1.40	0.03	0
MAB	202202143	40	28.83	72	29.36	146	11.02	1.50	0.03	0
MAB	202202144	40	28.61	72	32.56	81	6.84	1.00	0.02	0
MAB	202202145	40	28.91	72	40.26	12	1.32	0.15	0.00	0
MAB	202202146	40	31.89	72	36.83	22	2.13	0.19	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202202147	40	33.05	72	41.72	3	0.28	0.05	0.00	0
MAB	202202148	40	34.22	72	45.68	2	0.19	0.01	0.00	0
MAB	202202149	40	35.68	72	50.26	0	0.00	0.00	0.00	0
MAB	202202150	40	32.21	72	55.00	0	0.00	0.00	0.00	0
MAB	202202151	40	31.00	73	3.19	0	0.00	0.00	0.00	0
MAB	202202152	40	27.77	73	3.83	0	0.00	0.00	0.00	0
MAB	202202153	40	23.82	73	15.12	0	0.00	0.00	0.00	0
MAB	202202154	40	20.15	73	9.87	0	0.00	0.00	0.00	0
MAB	202202155	40	22.17	73	1.12	35	3.71	0.46	0.01	0
MAB	202202156	40	21.21	72	56.66	80	6.73	0.80	0.02	7
MAB	202202157	40	18.45	72	49.25	92	7.66	1.00	0.02	0
MAB	202202158	40	20.77	72	43.58	150	11.54	1.25	0.03	13
MAB	202202159	40	20.21	72	36.81	71	5.77	0.80	0.01	7
MAB	202202160	40	20.19	72	29.37	85	6.63	0.90	0.02	0
MAB	202202161	40	19.66	72	23.91	154	14.21	1.75	0.03	0
MAB	202202162	40	19.41	72	20.90	152	14.46	1.75	0.03	0
MAB	202202163	40	17.16	72	24.57	182	16.60	2.00	0.04	0
MAB	202202164	40	14.69	72	26.65	148	13.09	2.20	0.03	0
MAB	202202165	40	17.48	72	26.92	205	18.02	2.20	0.04	0
MAB	202202166	40	16.45	72	32.75	118	9.51	1.20	0.02	0
MAB	202202167	40	18.38	72	33.78	190	16.37	2.00	0.04	0
MAB	202202168	40	19.26	72	39.78	107	8.98	1.00	0.02	0
MAB	202202169	40	17.80	72	42.53	18	1.79	0.20	0.00	0
MAB	202202170	40	15.66	72	45.45	100	9.08	1.10	0.02	0
MAB	202202171	40	13.84	72	49.98	163	14.84	2.10	0.03	0
MAB	202202172	40	15.49	72	52.30	71	5.90	0.85	0.01	0
MAB	202202173	40	17.48	72	54.48	38	3.37	0.30	0.01	0
MAB	202202174	40	16.77	73	3.80	21	2.06	0.15	0.00	0
MAB	202202175	40	15.94	73	15.46	3	0.32	0.03	0.00	0
MAB	202202176	40	18.78	73	19.90	0	0.00	0.00	0.00	0
MAB	202202177	40	16.62	73	25.86	0	0.00	0.00	0.00	0
MAB	202202178	40	14.66	73	32.37	0	0.00	0.00	0.00	0
MAB	202202179	40	13.17	73	28.32	0	0.00	0.00	0.00	0
MAB	202202180	40	10.85	73	17.69	0	0.00	0.00	0.00	0
MAB	202202181	40	13.37	73	8.76	33	3.38	0.45	0.01	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202202182	40	12.13	73	3.59	85	7.85	1.00	0.02	0
MAB	202202183	40	11.19	73	0.78	51	4.65	0.87	0.01	0
MAB	202202184	40	9.26	72	55.61	32	2.88	0.30	0.01	0
MAB	202202185	40	8.85	72	51.02	66	5.98	0.80	0.01	7
MAB	202202186	40	7.98	72	46.72	92	8.24	1.10	0.02	7
MAB	202202187	40	4.95	72	50.57	77	7.07	0.90	0.02	7
MAB	202202188	40	6.54	72	58.27	108	10.34	1.20	0.02	0
MAB	202202189	40	8.22	73	8.66	42	4.20	0.40	0.01	0
MAB	202202190	40	7.13	73	15.71	4	0.42	0.05	0.00	60
MAB	202202191	40	8.45	73	27.35	0	0.00	0.00	0.00	0
MAB	202202192	40	10.67	73	29.89	0	0.00	0.00	0.00	0
MAB	202202193	40	11.52	73	36.77	0	0.00	0.00	0.00	0
MAB	202202194	40	8.80	73	36.82	0	0.00	0.00	0.00	0
MAB	202202195	40	7.30	73	33.91	0	0.00	0.00	0.00	0
MAB	202202196	40	5.58	73	29.93	11	1.13	0.10	0.00	17
MAB	202202197	40	3.38	73	20.82	3	0.34	0.01	0.00	50
MAB	202202198	40	3.62	73	17.54	3	0.35	0.02	0.00	0
MAB	202202199	40	1.69	73	18.96	45	4.40	0.66	0.01	0
MAB	202202200	40	0.43	73	15.86	24	2.50	0.29	0.00	0
MAB	202202201	40	0.23	73	6.03	69	5.93	0.90	0.01	0
MAB	202202202	40	0.56	73	1.22	61	5.85	0.85	0.01	0
MAB	202202203	40	1.40	72	57.33	43	3.53	0.45	0.01	0
MAB	202202204	39	57.52	72	56.16	49	4.10	0.60	0.01	0
MAB	202202205	39	54.48	72	55.78	21	2.01	0.20	0.00	0
MAB	202202206	39	55.03	73	0.16	6	0.70	0.06	0.00	0
MAB	202202207	39	54.64	73	2.58	12	1.31	0.10	0.00	0
MAB	202202208	39	56.14	73	4.67	35	3.60	0.50	0.01	0
MAB	202202209	39	57.66	73	7.28	9	0.89	0.10	0.00	0
MAB	202202210	39	58.93	73	10.95	19	1.77	0.20	0.00	0
MAB	202202211	39	59.46	73	14.65	69	6.02	1.00	0.01	0
MAB	202202212	39	59.44	73	18.07	53	5.11	0.85	0.01	0
MAB	202202213	40	0.06	73	20.09	19	1.81	0.21	0.00	0
MAB	202202214	40	0.84	73	21.76	12	0.99	0.10	0.00	0
MAB	202202215	40	2.79	73	24.70	1	0.08	0.01	0.00	0
MAB	202202216	40	2.60	73	30.11	168	13.03	1.50	0.03	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
MAB	202202217	40	4.41	73	33.98	14	1.17	0.20	0.00	7
MAB	202202218	40	6.06	73	38.47	28	2.13	0.30	0.01	20
MAB	202202219	40	6.08	73	42.31	0	0.00	0.00	0.00	0
MAB	202202221	40	2.62	73	42.87	0	0.00	0.00	0.00	0
MAB	202202222	40	1.05	73	40.21	2	0.10	0.01	0.00	0
MAB	202202223	40	2.57	73	37.01	1	0.05	0.01	0.00	0
MAB	202202224	39	59.24	73	36.42	1	0.07	0.01	0.00	0
MAB	202202225	40	0.51	73	31.70	52	4.68	0.60	0.01	27
MAB	202202226	39	58.88	73	27.29	33	3.01	0.40	0.01	0
MAB	202202227	39	57.07	73	24.93	17	1.48	0.20	0.00	0
MAB	202202228	39	53.93	73	20.77	538	19.23	5.25	0.11	0
MAB	202202229	39	52.64	73	17.34	491	33.34	4.50	0.10	0
MAB	202202230	39	53.34	73	13.14	1685	92.89	23.40	0.33	0
MAB	202202231	39	52.90	73	9.20	701	44.55	5.75	0.14	0
MAB	202202232	39	51.63	73	7.71	393	26.02	3.50	0.08	0
MAB	202202233	39	50.95	73	8.84	974	64.36	9.50	0.19	0
MAB	202202234	39	50.62	73	11.83	136	10.02	1.45	0.03	0
MAB	202202235	39	51.03	73	21.75	17	1.47	0.21	0.00	0
MAB	202202236	39	54.29	73	24.61	58	4.91	0.66	0.01	0
MAB	202202237	39	55.53	73	31.65	0	0.00	0.00	0.00	0
MAB	202202238	39	53.45	73	36.92	0	0.00	0.00	0.00	0
MAB	202202239	39	48.67	73	28.02	0	0.00	0.00	0.00	0
MAB	202202240	39	42.98	73	19.87	0	0.00	0.00	0.00	0
MAB	202202241	39	40.99	73	22.33	2	0.26	0.01	0.00	0
MAB	202202242	39	37.97	73	32.20	4	0.42	0.04	0.00	0
MAB	202202243	39	36.31	73	31.30	1	0.10	0.01	0.00	0
GB	202203001	40	42.06	69	38.73	0	0.00	0.00	0.00	0
GB	202203002	40	42.42	69	46.73	0	0.00	0.00	0.00	0
GB	202203003	40	40.16	69	55.23	1	0.12	0.01	0.00	0
GB	202203004	40	39.01	69	49.34	2	0.19	0.01	0.00	0
GB	202203005	40	37.94	69	52.05	3	0.57	0.05	0.00	0
GB	202203006	40	37.60	69	54.39	5	0.78	0.05	0.00	0
GB	202203007	40	37.72	69	57.36	4	0.59	0.10	0.00	0
GB	202203008	40	34.77	69	58.77	0	0.00	0.00	0.00	0
GB	202203009	40	32.51	69	56.76	5	0.66	0.05	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
GB	202203010	40	30.94	69	57.63	0	0.00	0.00	0.00	0
GB	202203011	40	28.67	69	59.25	0	0.00	0.00	0.00	0
GB	202203012	40	28.31	69	56.55	0	0.00	0.00	0.00	0
GB	202203013	40	30.76	69	51.10	1	0.12	0.01	0.00	0
GB	202203014	40	32.89	69	51.60	9	1.15	0.15	0.00	0
GB	202203015	40	34.38	69	55.04	0	0.00	0.00	0.00	0
GB	202203016	40	36.15	69	51.22	2	0.32	0.01	0.00	0
GB	202203017	40	37.58	69	46.47	0	0.00	0.00	0.00	0
GB	202203018	40	35.77	69	47.79	16	1.73	0.20	0.00	0
GB	202203019	40	34.95	69	45.39	5	0.50	0.10	0.00	0
GB	202203020	40	32.28	69	47.62	1	0.07	0.01	0.00	0
GB	202203021	40	30.46	69	43.98	0	0.00	0.00	0.00	0
GB	202203022	40	29.25	69	39.37	2	0.14	0.01	0.00	0
GB	202203023	40	27.12	69	41.68	5	0.50	0.03	0.00	0
GB	202203024	40	27.09	69	45.86	2	0.17	0.01	0.00	0
GB	202203025	40	24.51	69	43.61	1	0.07	0.01	0.00	0
GB	202203026	40	22.53	69	43.39	0	0.00	0.00	0.00	0
GB	202203027	40	21.73	69	41.16	0	0.00	0.00	0.00	0
GB	202203028	40	20.77	69	38.76	0	0.00	0.00	0.00	0
GB	202203029	40	21.11	69	36.32	5	0.39	0.05	0.00	0
GB	202203030	40	21.75	69	32.89	90	7.19	0.70	0.02	0
GB	202203031	40	22.46	69	36.42	4	0.33	0.02	0.00	0
GB	202203032	40	23.81	69	39.78	2	0.16	0.01	0.00	0
GB	202203033	40	26.32	69	39.57	44	4.93	0.50	0.01	0
GB	202203034	40	27.88	69	35.15	32	3.51	0.25	0.01	0
GB	202203035	40	29.64	69	35.17	57	6.39	0.75	0.01	0
GB	202203036	40	31.24	69	38.66	11	1.00	0.10	0.00	0
GB	202203037	40	33.73	69	37.10	18	1.91	0.20	0.00	0
GB	202203038	40	33.72	69	39.69	10	0.82	0.10	0.00	0
GB	202203039	40	34.61	69	42.85	5	0.50	0.05	0.00	0
GB	202203040	40	37.40	69	41.73	0	0.00	0.00	0.00	0
GB	202203041	40	38.32	69	38.94	1	0.05	0.01	0.00	0
GB	202203042	40	37.33	69	35.30	0	0.00	0.00	0.00	0
GB	202203043	40	40.31	69	29.52	0	0.00	0.00	0.00	0
GB	202203044	40	39.84	69	25.14	0	0.00	0.00	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
GB	202203045	40	36.76	69	30.42	0	0.00	0.00	0.00	0
GB	202203046	40	36.13	69	27.84	0	0.00	0.00	0.00	0
GB	202203047	40	34.95	69	33.63	8	1.15	0.10	0.00	0
GB	202203048	40	33.58	69	29.53	4	0.70	0.05	0.00	0
GB	202203049	40	32.34	69	30.64	6	0.70	0.05	0.00	0
GB	202203050	40	29.09	69	30.97	19	2.25	0.15	0.00	0
GB	202203051	40	27.81	69	32.84	31	3.22	0.40	0.01	0
GB	202203052	40	24.87	69	32.81	72	6.40	0.60	0.01	0
GB	202203053	40	23.31	69	29.91	4014	210.19	38.00	0.79	0
GB	202203054	40	21.84	69	27.03	65	2.73	0.45	0.01	0
GB	202203055	40	23.67	69	27.39	3219	166.04	34.00	0.64	0
GB	202203056	40	25.33	69	26.41	5505	325.00	65.00	1.07	0
GB	202203057	40	24.69	69	28.30	443	29.84	4.80	0.09	0
GB	202203058	40	26.58	69	28.99	92	7.08	1.50	0.02	0
GB	202203059	40	28.76	69	26.82	2	0.27	0.01	0.00	0
GB	202203060	40	31.20	69	26.46	3	0.47	0.01	0.00	0
GB	202203061	40	34.23	69	25.36	4	0.41	0.02	0.00	0
GB	202203062	40	37.31	69	24.09	0	0.00	0.00	0.00	0
GB	202203063	40	37.44	69	20.54	1	0.08	0.01	0.00	0
GB	202203064	40	35.45	69	21.46	8	1.27	0.12	0.00	0
GB	202203065	40	32.80	69	22.00	10	1.46	0.15	0.00	0
GB	202203066	40	30.18	69	20.02	12	1.53	0.16	0.00	0
GB	202203067	40	29.05	69	24.32	49	5.95	0.70	0.01	0
GB	202203068	40	27.18	69	23.17	250	16.07	2.15	0.05	0
GB	202203069	40	27.59	69	19.89	49	3.80	0.68	0.01	0
GB	202203070	40	26.03	69	19.64	14	0.65	0.10	0.00	0
GB	202203071	40	23.77	69	21.94	36	1.53	0.17	0.01	0
GB	202203072	40	21.51	69	23.32	55	2.24	0.60	0.01	0
GB	202203073	40	20.40	69	21.48	17	0.72	0.15	0.00	0
GB	202203074	40	20.24	69	16.65	2	0.07	0.01	0.00	0
GB	202203075	40	22.11	69	18.04	38	1.40	0.30	0.01	0
GB	202203076	40	25.25	69	16.32	12	0.47	0.20	0.00	0
GB	202203077	40	26.91	69	14.88	21	0.94	0.20	0.00	0
GB	202203078	40	28.59	69	12.34	14	1.36	0.15	0.00	0
GB	202203079	40	29.73	69	13.97	5	0.59	0.05	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
GB	202203080	40	32.85	69	18.29	0	0.00	0.00	0.00	0
GB	202203081	40	34.26	69	15.09	5	0.59	0.05	0.00	0
GB	202203082	40	35.85	69	17.93	4	0.55	0.05	0.00	0
GB	202203083	40	39.87	69	17.44	0	0.00	0.00	0.00	0
GB	202203084	40	41.69	69	14.60	1	0.11	0.01	0.00	0
GB	202203085	40	43.17	69	15.26	15	1.65	0.15	0.00	0
GB	202203087	40	45.58	69	17.22	155	18.09	2.00	0.03	0
GB	202203088	40	46.59	69	19.19	129	16.96	1.60	0.03	0
GB	202203089	40	47.23	69	15.22	66	10.01	1.00	0.01	0
GB	202203090	40	49.54	69	14.07	25	3.46	0.60	0.00	0
GB	202203091	40	49.17	69	9.61	272	29.82	2.94	0.05	0
GB	202203092	40	48.32	69	5.28	344	40.80	4.25	0.07	0
GB	202203093	40	46.22	69	7.38	23	2.92	0.20	0.00	0
GB	202203094	40	44.54	69	10.78	0	0.00	0.00	0.00	0
GB	202203095	40	42.65	69	8.91	56	6.94	0.88	0.01	0
GB	202203096	40	41.39	69	12.12	26	2.63	0.25	0.01	0
GB	202203097	40	40.32	69	8.85	106	12.47	1.25	0.02	0
GB	202203098	40	38.72	69	11.02	14	1.55	0.11	0.00	0
GB	202203099	40	37.73	69	12.16	24	2.94	0.25	0.00	0
GB	202203100	40	36.31	69	9.05	41	4.87	0.69	0.01	0
GB	202203101	40	34.41	69	11.72	26	2.84	0.33	0.00	0
GB	202203102	40	33.51	69	8.49	41	4.22	0.60	0.01	0
GB	202203103	40	31.92	69	8.54	31	3.16	0.25	0.01	0
GB	202203104	40	28.88	69	7.10	30	2.10	0.28	0.01	0
GB	202203105	40	27.32	69	9.23	85	3.34	0.80	0.02	0
GB	202203106	40	25.61	69	7.55	29	1.07	0.20	0.01	0
GB	202203107	40	25.61	69	10.63	63	2.43	0.60	0.01	0
GB	202203108	40	23.96	69	14.12	83	3.35	0.80	0.02	0
GB	202203109	40	21.81	69	12.52	1	0.03	0.01	0.00	0
GB	202203110	40	22.26	69	9.51	18	0.74	0.20	0.00	0
GB	202203111	40	21.71	69	6.48	0	0.00	0.00	0.00	0
GB	202203112	40	20.62	69	2.62	0	0.01	0.01	0.00	0
GB	202203113	40	23.40	69	1.86	1	0.05	0.01	0.00	0
GB	202203114	40	24.88	69	3.91	16	0.71	0.10	0.00	0
GB	202203115	40	26.28	69	1.08	17	0.85	0.10	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
GB	202203116	40	27.90	69	0.99	50	2.97	0.50	0.01	0
GB	202203117	40	30.02	69	4.84	29	2.33	0.30	0.01	0
GB	202203118	40	32.50	69	1.69	28	2.95	0.40	0.01	0
GB	202203119	40	34.77	69	3.11	34	3.66	0.30	0.01	0
GB	202203120	40	36.66	69	5.19	92	9.02	0.98	0.02	0
GB	202203121	40	37.91	69	0.87	82	9.32	1.00	0.02	0
GB	202203122	40	39.00	69	4.80	35	3.61	0.50	0.01	0
GB	202203123	40	40.83	69	2.15	93	11.21	1.25	0.02	0
GB	202203124	40	42.12	69	4.87	160	20.30	2.87	0.03	0
GB	202203125	40	43.58	69	2.41	46	5.27	0.89	0.01	0
GB	202203126	40	48.59	69	2.26	85	9.24	1.25	0.02	0
GB	202203127	40	44.31	68	18.69	4	0.33	0.02	0.00	0
GB	202203128	40	43.46	68	14.66	3	0.33	0.01	0.00	0
GB	202203129	40	41.06	68	16.51	13	1.53	0.07	0.00	0
GB	202203130	40	37.82	68	19.10	5	0.30	0.03	0.00	0
GB	202203131	40	35.87	68	24.00	36	2.65	0.20	0.01	0
GB	202203132	40	33.21	68	26.56	615	42.28	4.80	0.12	0
GB	202203133	40	30.01	68	24.81	55	3.34	0.40	0.01	0
GB	202203134	40	35.50	68	2.89	1	0.07	0.01	0.00	0
GB	202203135	40	39.99	67	58.14	228	17.51	1.90	0.04	0
GB	202203136	40	45.57	68	2.92	56	5.70	0.80	0.01	0
GB	202203137	40	44.53	67	57.85	211	18.18	2.00	0.04	0
GB	202203138	40	42.19	67	50.99	142	11.36	1.15	0.03	0
GB	202203139	40	38.83	67	51.28	125	9.79	1.30	0.02	0
GB	202203140	40	34.90	67	52.90	10	0.71	0.10	0.00	0
GB	202203141	40	37.67	67	45.63	97	7.22	0.90	0.02	0
GB	202203142	40	40.20	67	45.92	128	11.33	1.20	0.03	0
GB	202203143	40	43.76	67	48.04	76	7.24	0.85	0.02	0
GB	202203144	40	50.13	67	53.27	39	5.17	0.75	0.01	0
GB	202203145	40	51.54	67	48.35	73	8.70	0.98	0.01	0
GB	202203146	40	48.75	67	42.55	309	28.49	2.85	0.06	0
GB	202203147	40	46.56	67	39.15	85	6.60	0.70	0.02	0
GB	202203148	40	43.69	67	37.76	312	22.90	2.10	0.06	0
GB	202203149	40	41.61	67	40.98	139	12.32	1.00	0.03	0
GB	202203150	40	37.48	67	40.21	341	22.64	2.70	0.06	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
GB	202203151	40	34.75	67	36.94	0	0.00	0.00	0.00	0
GB	202203152	40	34.73	67	32.74	0	0.00	0.00	0.00	0
GB	202203153	40	36.54	67	31.74	0	0.00	0.00	0.00	0
GB	202203154	40	39.51	67	34.56	318	27.62	3.00	0.06	0
GB	202203155	40	42.97	67	34.17	383	25.38	3.20	0.08	0
GB	202203156	40	49.72	67	34.18	132	8.68	1.00	0.03	0
GB	202203158	40	54.68	67	38.51	127	11.46	1.20	0.02	0
GB	202203159	40	57.22	67	44.36	34	4.11	0.50	0.01	0
GB	202203160	40	58.72	67	34.09	87	9.49	1.00	0.02	0
GB	202203161	40	54.91	67	31.15	161	11.90	1.40	0.03	0
GB	202203162	40	46.95	67	28.62	1005	56.60	7.00	0.19	0
GB	202203163	40	42.99	67	29.06	147	10.12	1.20	0.03	0
GB	202203164	40	40.62	67	29.17	245	19.87	2.30	0.05	0
GB	202203165	40	36.42	67	22.52	0	0.00	0.00	0.00	0
GB	202203166	40	39.11	67	24.72	0	0.00	0.00	0.00	0
GB	202203168	40	40.90	67	21.16	0	0.00	0.00	0.00	0
GB	202203169	40	44.16	67	24.35	0	0.00	0.00	0.00	0
GB	202203170	40	47.88	67	24.89	204	16.35	2.20	0.04	0
GB	202203171	40	55.52	67	27.65	7	0.56	0.06	0.00	0
GB	202203172	41	0.13	67	27.65	64	7.64	0.85	0.01	0
GB	202203174	41	4.89	67	34.01	1	0.08	0.01	0.00	0
GB	202203175	41	4.51	67	27.46	4	0.64	0.01	0.00	0
GB	202203176	41	2.05	67	23.06	28	4.29	0.50	0.01	0
GB	202203177	41	3.23	67	16.40	18	2.48	0.10	0.00	0
GB	202203178	41	0.33	67	13.74	162	17.42	1.65	0.03	0
GB	202203180	40	56.50	67	9.14	384	34.91	3.00	0.07	0
GB	202203181	40	54.99	67	12.78	2178	147.85	15.90	0.43	0
GB	202203182	40	53.85	67	17.95	2421	185.53	21.00	0.47	0
GB	202203183	40	52.33	67	21.23	2277	121.14	16.30	0.43	0
GB	202203184	40	48.54	67	18.75	98	7.92	0.90	0.02	0
GB	202203185	40	44.35	67	17.18	0	0.00	0.00	0.00	0
GB	202203186	40	40.84	67	16.21	0	0.00	0.00	0.00	0
GB	202203187	40	37.78	67	12.33	0	0.00	0.00	0.00	0
GB	202203188	40	40.36	67	9.98	0	0.00	0.00	0.00	0
GB	202203190	40	43.48	67	3.54	0	0.00	0.00	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
GB	202203191	40	44.58	67	0.43	0	0.00	0.00	0.00	0
GB	202203192	40	47.48	67	4.01	0	0.00	0.00	0.00	0
GB	202203193	40	46.67	67	8.51	0	0.00	0.00	0.00	0
GB	202203195	40	48.49	67	13.31	6	0.42	0.05	0.00	0
GB	202203197	40	52.45	67	6.99	431	34.92	4.50	0.08	0
GB	202203198	40	54.19	67	3.60	331	31.18	3.80	0.06	0
GB	202203199	40	56.96	67	5.38	432	37.25	4.80	0.09	0
GB	202203200	41	1.26	67	3.22	440	43.01	4.30	0.09	0
GB	202203201	40	58.87	66	58.41	3902	349.92	38.00	0.75	0
GB	202203203	40	53.36	66	58.58	0	0.00	0.00	0.00	0
GB	202203204	40	51.01	67	2.42	277	21.65	3.20	0.05	0
GB	202203205	40	50.00	66	59.35	12	0.95	0.10	0.00	0
GB	202203206	40	49.89	66	53.76	2	0.14	0.01	0.00	0
GB	202203207	40	50.96	66	50.70	0	0.00	0.00	0.00	0
GB	202203208	40	53.80	66	54.05	96	8.34	0.95	0.02	0
GB	202203209	40	57.27	66	55.31	622	51.93	4.88	0.12	0
GB	202203210	40	58.15	66	51.49	326	28.64	3.00	0.06	0
GB	202203211	40	55.09	66	49.85	475	43.63	4.30	0.09	0
GB	202203212	40	53.43	66	46.48	5	0.38	0.01	0.00	0
GB	202203213	40	54.96	66	41.03	0	0.00	0.00	0.00	0
GB	202203214	40	58.64	66	47.47	254	20.61	1.80	0.05	0
GB	202203215	41	0.22	66	43.45	216	17.57	1.80	0.04	0
GB	202203216	40	58.66	66	39.09	2	0.12	0.01	0.00	0
GB	202203217	41	1.63	66	39.24	255	17.45	2.00	0.05	0
GB	202203218	41	2.29	66	44.77	1304	101.29	10.50	0.24	0
GB	202203220	41	4.18	66	49.16	463	37.62	3.80	0.09	0
GB	202203221	41	3.16	66	55.58	376	30.19	2.90	0.07	0
GB	202203222	41	5.25	66	58.54	120	11.01	1.00	0.02	0
GB	202203224	41	9.61	67	6.54	40	5.12	0.60	0.01	0
GB	202203225	41	9.85	67	9.91	26	3.10	0.20	0.01	0
GB	202203226	41	9.03	67	13.19	16	1.78	0.01	0.00	0
GB	202203228	41	11.94	67	16.68	4	0.62	0.01	0.00	0
GB	202203229	41	12.45	67	13.09	1	0.16	0.01	0.00	0
GB	202203230	41	14.21	67	7.67	1	0.10	0.01	0.00	0
GB	202203231	41	15.58	67	3.74	0	0.00	0.00	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
GB	202203232	41	15.12	66	56.06	32	4.88	0.40	0.01	0
GB	202203233	41	13.53	66	58.97	19	2.87	0.23	0.00	0
GB	202203234	41	11.15	66	53.82	60	9.21	1.00	0.01	0
GB	202203235	41	6.90	66	44.28	89	8.50	0.75	0.02	0
GB	202203236	41	4.81	66	38.36	576	43.21	4.60	0.11	0
GB	202203238	41	4.78	66	31.71	2	0.09	0.01	0.00	0
GB	202203239	41	7.71	66	31.92	433	36.34	4.80	0.08	0
GB	202203242	41	7.94	66	36.21	263	16.28	2.00	0.05	0
GB	202203244	41	13.02	66	40.95	182	16.03	1.70	0.04	0
GB	202203245	41	14.25	66	44.61	85	10.30	1.10	0.02	0
GB	202203246	41	18.28	66	52.66	40	5.12	0.50	0.01	0
GB	202203247	41	22.75	66	53.36	15	2.11	0.10	0.00	0
GB	202203248	41	19.11	66	46.79	69	9.21	1.10	0.01	0
GB	202203249	41	18.02	66	43.03	80	8.16	1.00	0.02	0
GB	202203250	41	15.86	66	36.20	405	30.81	3.50	0.08	0
GB	202203251	41	14.90	66	31.91	1761	92.34	15.80	0.34	0
GB	202203252	41	11.82	66	33.49	307	21.83	3.10	0.06	0
GB	202203253	41	10.20	66	29.38	1340	120.84	14.25	0.28	0
GB	202203254	41	11.65	66	25.82	244	18.96	2.75	0.05	0
GB	202203255	41	13.99	66	24.71	1675	130.18	14.80	0.33	0
GB	202203256	41	16.21	66	27.02	2492	174.26	24.70	0.48	0
GB	202203257	41	17.24	66	30.65	612	42.27	6.00	0.12	0
GB	202203259	41	21.19	66	31.80	437	31.79	4.60	0.08	0
GB	202203260	41	20.67	66	38.20	404	30.93	4.75	0.08	0
GB	202203261	41	21.81	66	44.28	250	26.53	3.20	0.05	0
GB	202203262	41	23.53	66	41.55	101	11.20	1.50	0.02	0
GB	202203263	41	24.01	66	35.62	460	38.05	4.89	0.09	0
GB	202203264	41	26.04	66	34.37	275	25.24	3.10	0.05	0
GB	202203265	41	27.05	66	37.24	256	23.96	3.00	0.05	0
GB	202203266	41	28.76	66	36.84	141	15.54	1.88	0.03	0
GB	202203267	41	29.47	66	43.67	22	2.32	0.15	0.00	0
GB	202203268	41	27.13	66	43.92	70	7.97	0.10	0.01	0
GB	202203269	41	27.93	66	52.41	4	0.40	0.01	0.00	0
GB	202203270	41	27.25	66	57.00	0	0.00	0.00	0.00	0
GB	202203271	41	28.74	67	0.13	0	0.00	0.00	0.00	0

Table 2: continued

Survey	StationID	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallops (number)	Scallops (lbs)	Scallops (baskets)	Scallop density	Nematode Prevalence
GB	202203272	41	28.22	67	4.63	0	0.00	0.00	0.00	0

In addition to the catch data that informed our understanding of scallop abundance and biomass, we also monitored meat quality during each survey. This allowed us to determine the prevalence and intensity of a parasitic nematode observed in the scallop meat and monitor for other diseases that may impact meat quality and yield including the presence of shell blister.

Nematode infected scallops typically present with rust colored lesions on the exterior of the adductor muscle, often opposite the sweet meat. Nematode infected scallops were observed only during the MAB survey with a typical number of nematodes observed per scallop meat ranging from 1-9. The spatial distribution of the nematode prevalence (percent of sampled scallops at a given station with at least one lesion) by year for 2015 - 2022 is shown in (Figure 8) . From 2016-2022, nematode infected scallops have been detected in the HCS, although the distribution is patchy and prevalence is low (20 percent or less of scallops are infected). The distribution of infected scallops observed in 2020 and 2021 was spatially broader as compared to 2019 and 2022. Since 2019, the ET has been identified as a hot spot with a high proportion of infected scallops, as well as the greatest number of lesions observed per scallop. The number of infected scallops in the southern portion of the resource area has continued to decline since 2018. This decline may be related to a decline in biomass in the southern portion of the resource. Very few infected scallops were observed in the MAB Nearshore, NYB or the open areas off of LI and BI.

In addition to monitoring nematode infected scallops, we also recorded the presence and severity of shell blister disease (Figures 9–10). This disease can reduce yield and lower meat quality, and has typically been found in larger scallops in deeper water. Since 2021, there has been an increase in the number of scallops with shell blister disease observed in the MAB. The highest percentage of scallops with this disease have been documented in the ET (28 percent) and HCS (27 percent) SAMS Areas. The spatial distribution of infected scallops has also expanded in 2021 and 2020 compared to 2019 (Figure 9). On Georges Bank, the percentage of scallops with shell blister disease has increased in the NL South Deep SAMS Area in 2021 and 2022 (Figure 10), but on eastern George's the percentage of scallops with shell blister has remained low since 2019.

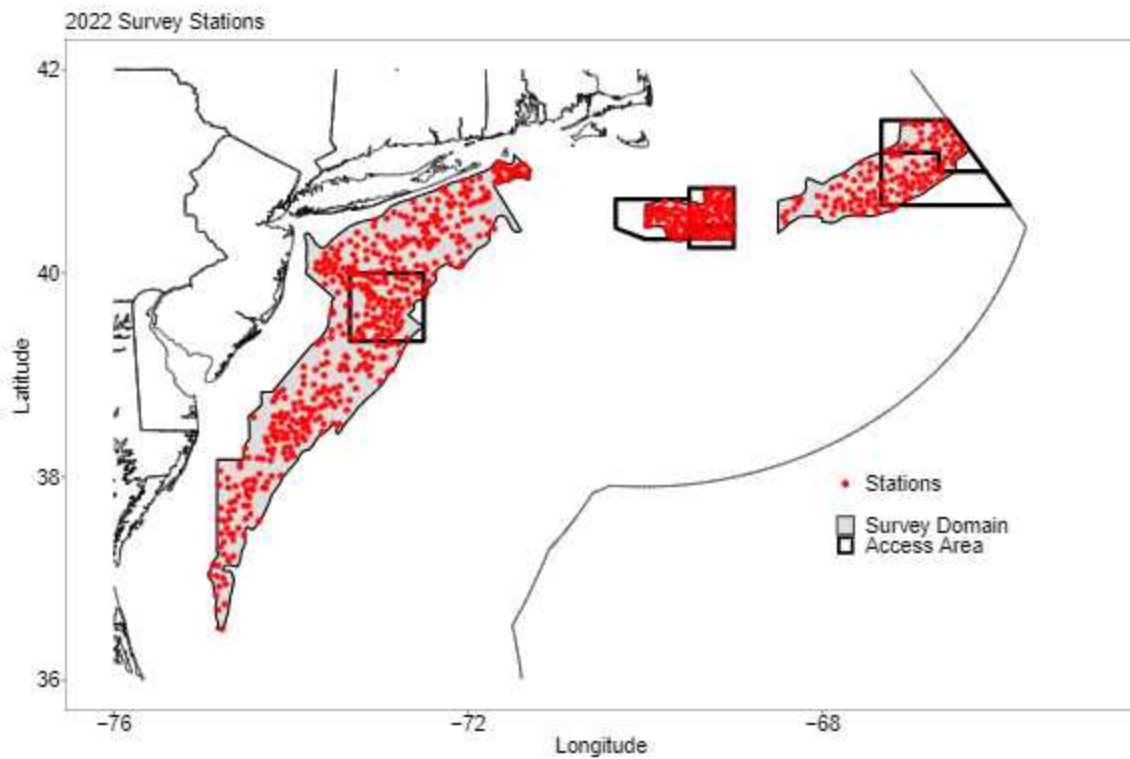


Figure 1: Survey domains with station locations for the VIMS/Industry cooperative surveys of the Mid-Atlantic sea scallop resource area, the Nantucket Lightship, Southern Flank, Closed Area II Extension, and Closed Area II completed during May–June 2022.

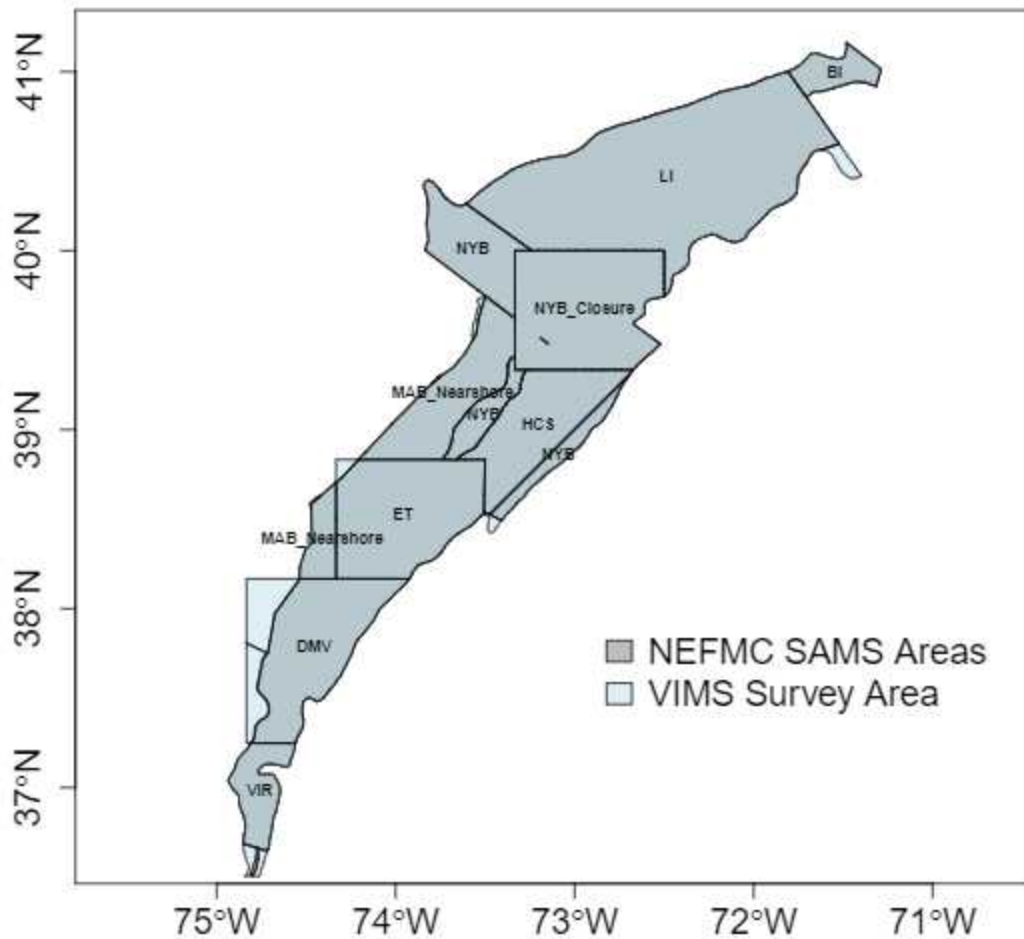


Figure 2: SAMS Areas used to calculate biomass estimates for the VIMS/Industry cooperative survey of the Mid-Atlantic sea scallop resource during May-June 2022.

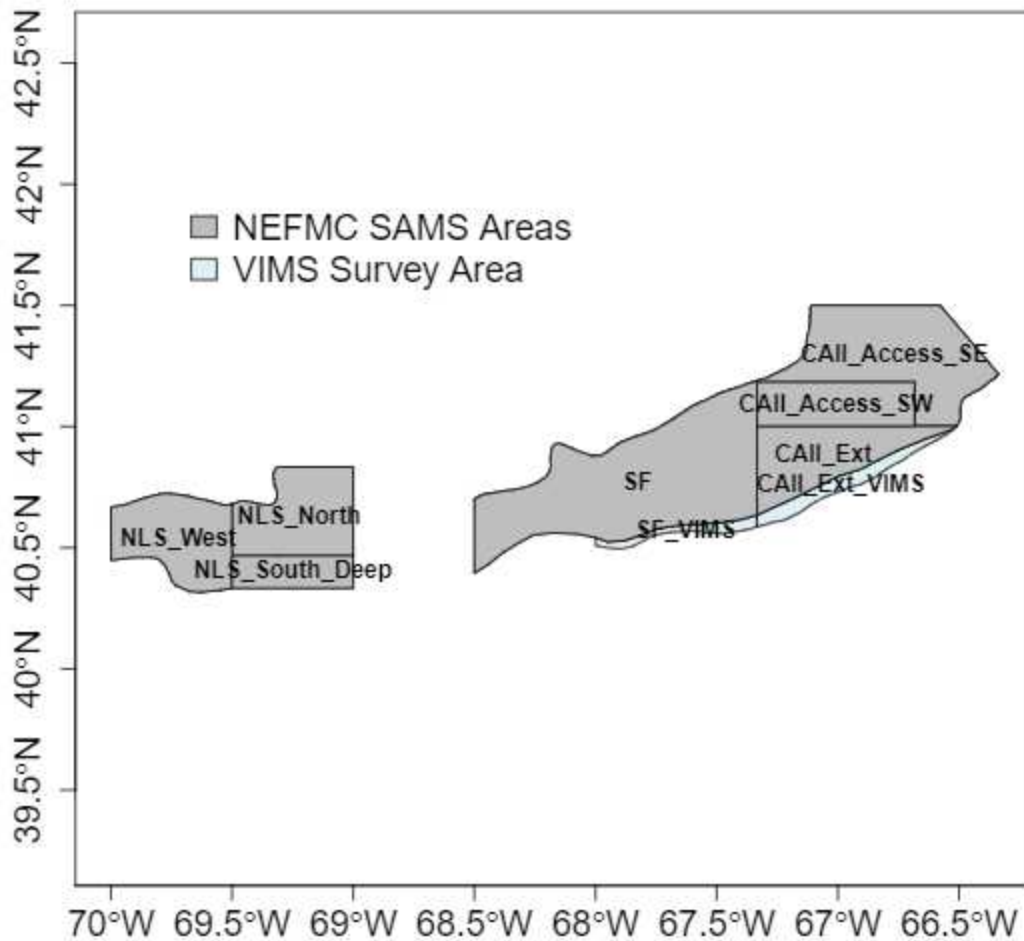


Figure 3: SAMS Areas used to calculate biomass estimates for the VIMS/Industry cooperative survey of portions of Georges Bank including the Nantucket Lightship, Southern Flank, CAII Extension, and CAII during June 2022.

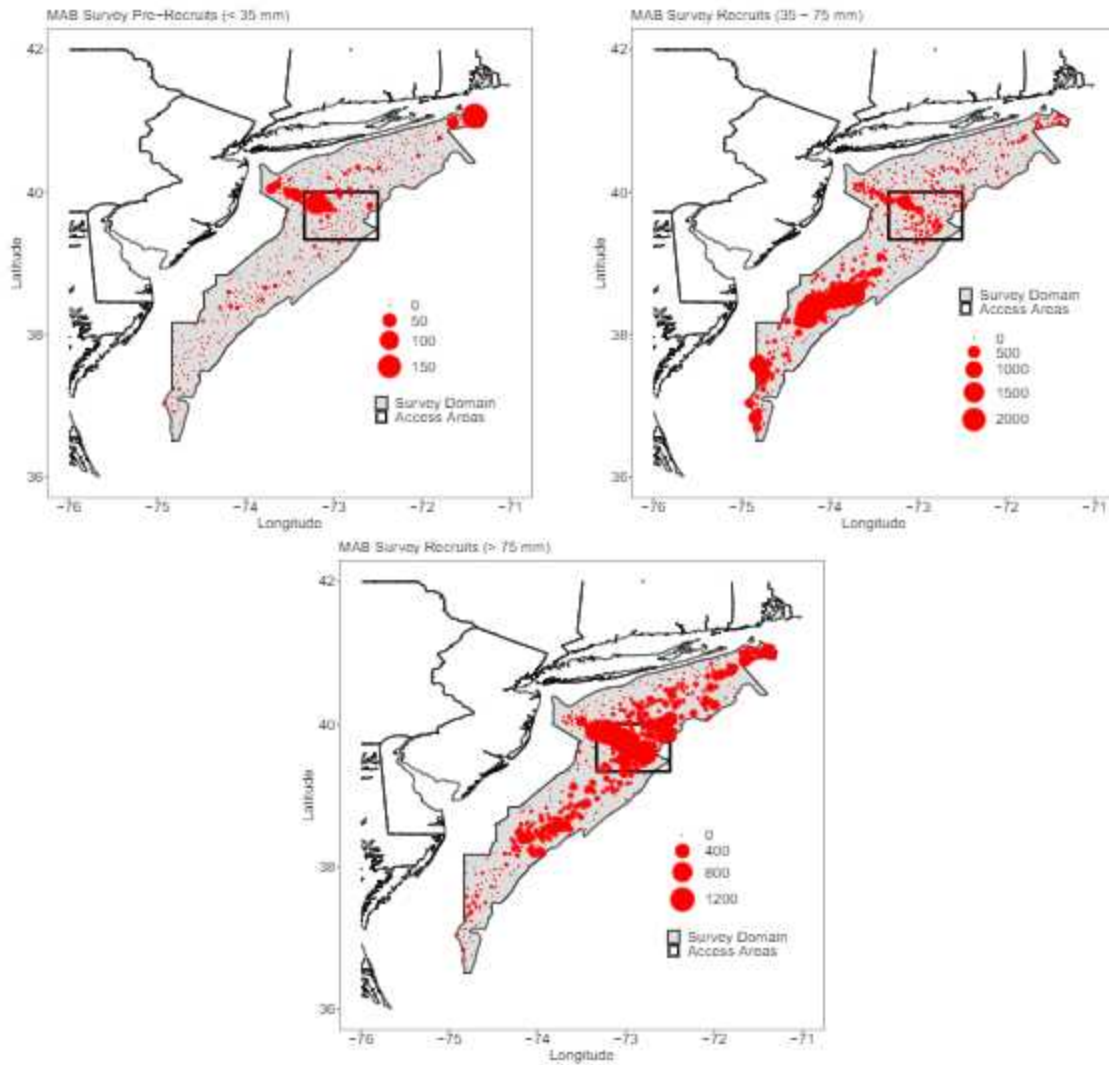


Figure 4: Number of scallops <35 mm, 35–75 mm, and >75 mm caught in the NMFS survey dredge during the VIMS/Industry cooperative survey of the Mid-Atlantic sea scallop resource during May-June 2022.

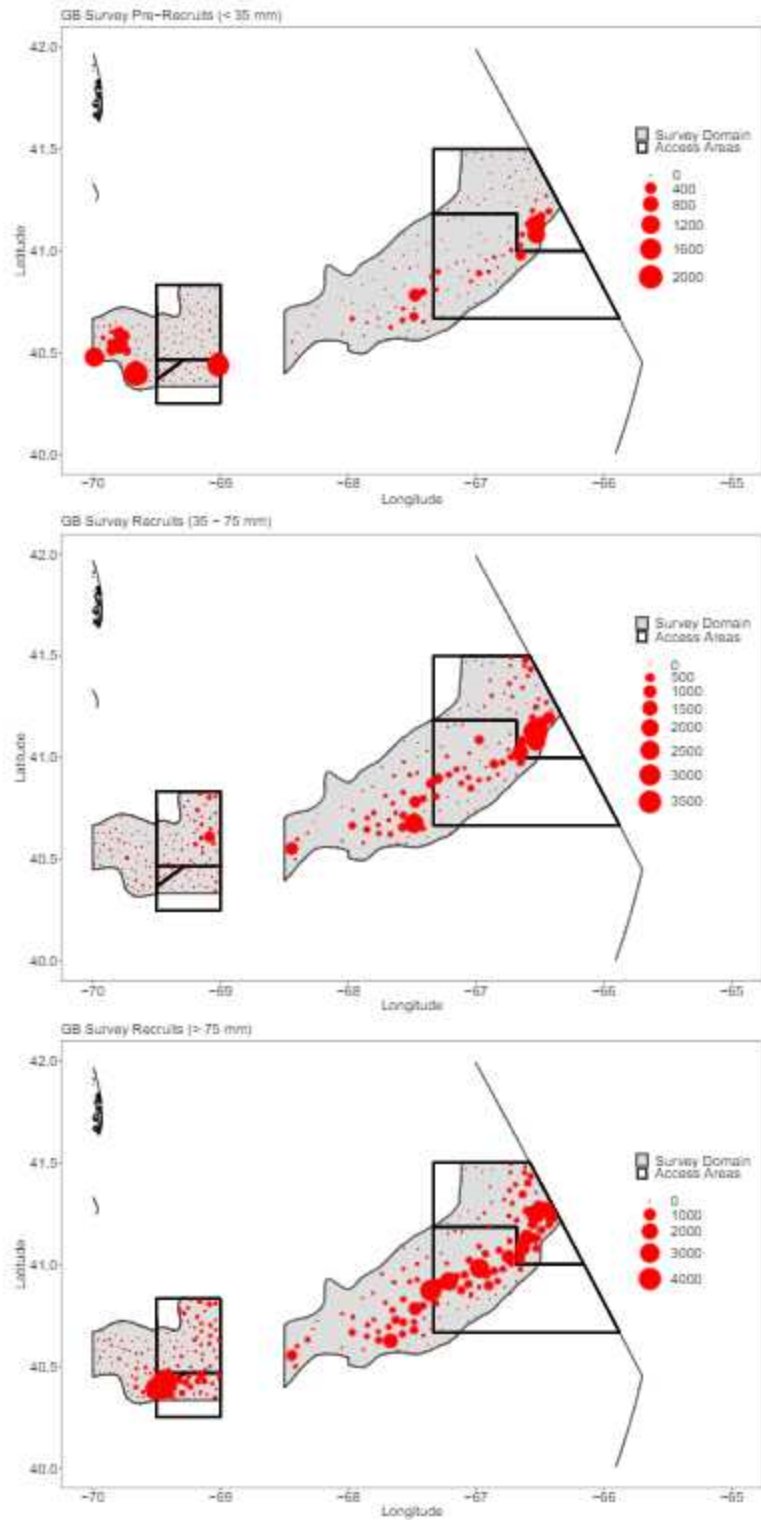


Figure 5: Number of scallops <35 mm, 35–75 mm, and >75 mm caught in the NMFS survey dredge during the VIMS/Industry cooperative survey of the Mid-Atlantic sea scallop resource during June 2022.

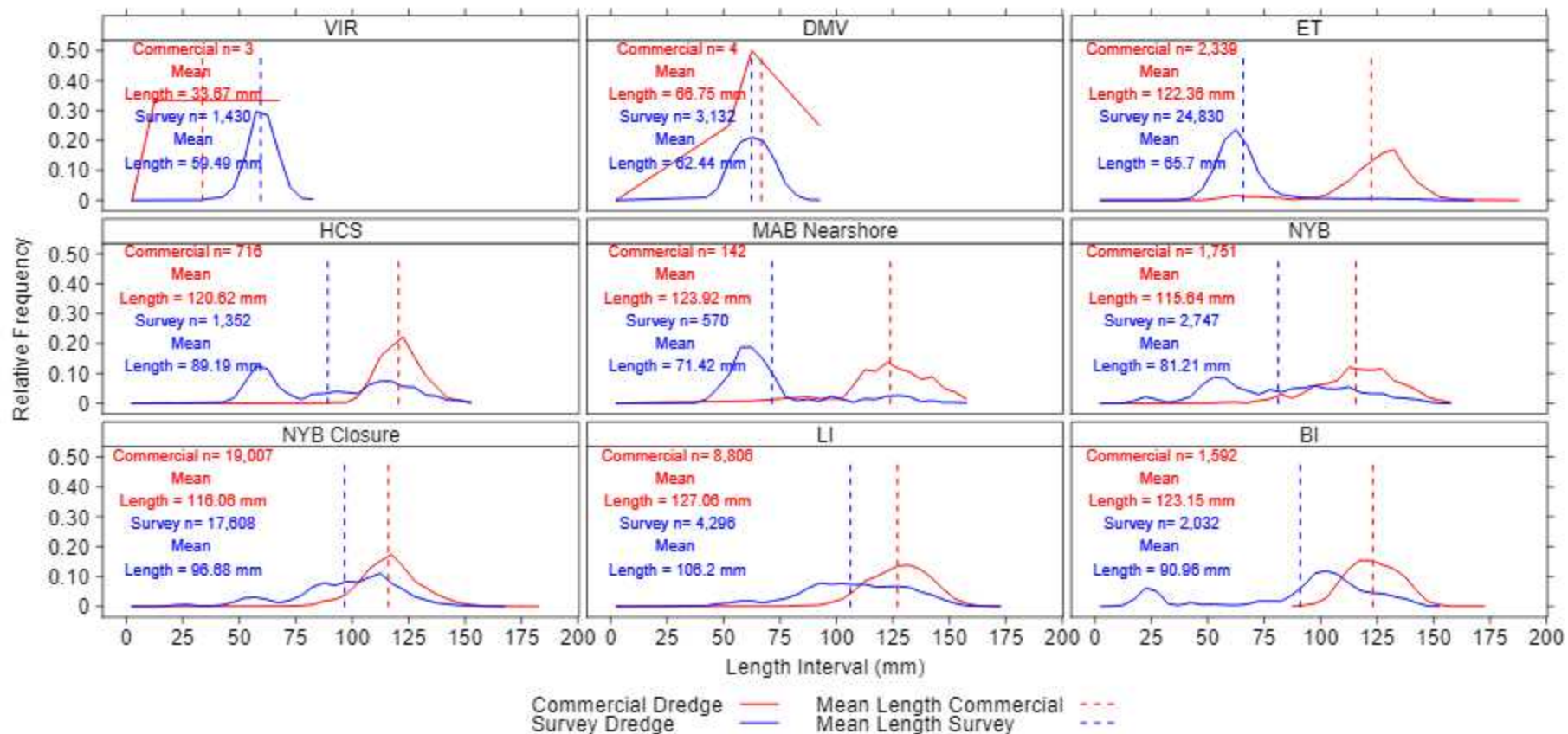


Figure 6: Scallop length frequency distributions generated from catch data obtained from both the survey and commercial dredges during the VIMS/Industry cooperative survey of the Mid-Atlantic sea scallop resource area in May-June 2022 by SAMS Area. Number of scallops (n) measured and mean length by gear are also included.

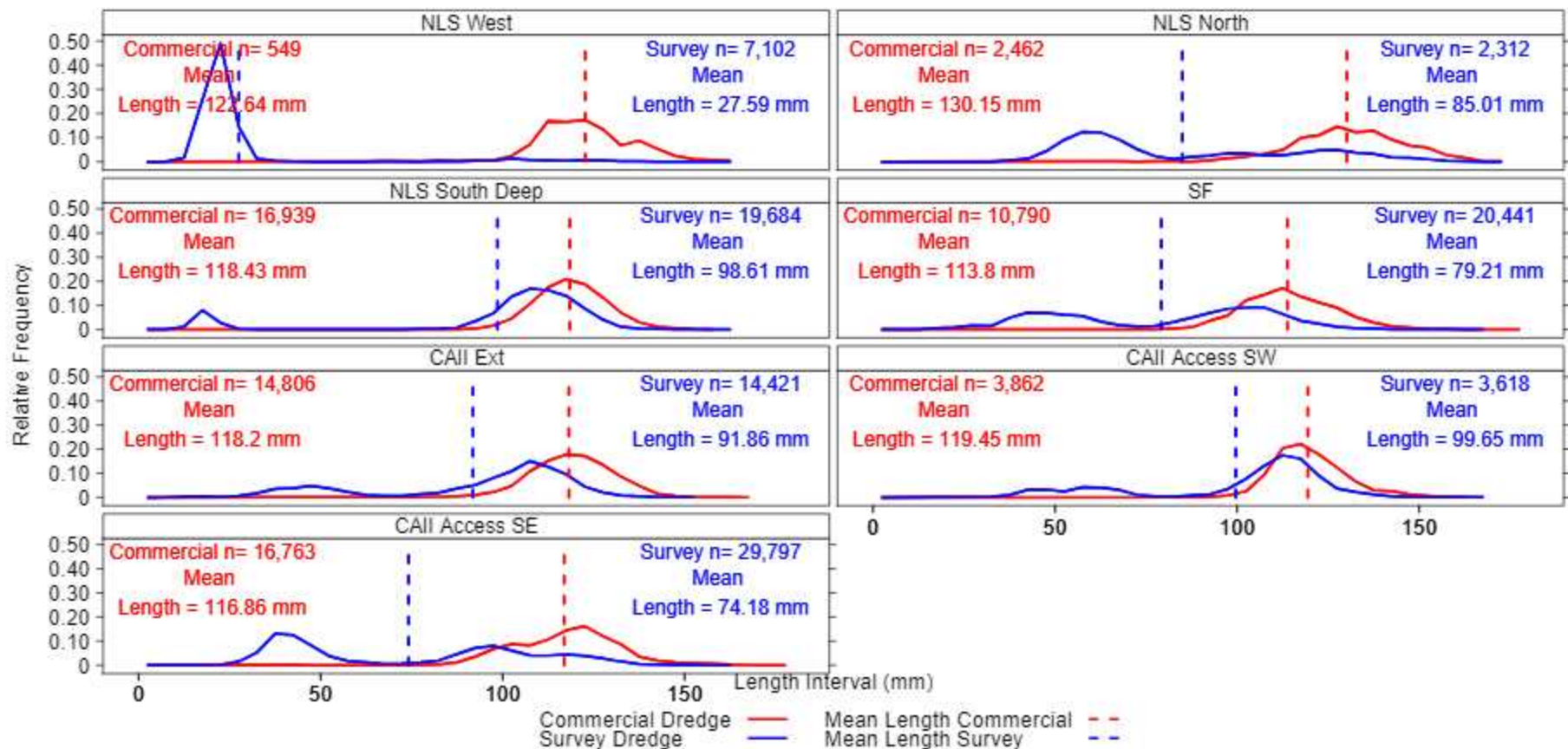


Figure 7: Scallop length frequency distributions generated from catch data obtained from both the survey and commercial dredges during the VIMS/Industry cooperative survey of the Mid-Atlantic sea scallop resource area in June 2022 by SAMS Area. Number of scallops (n) measured and mean length by gear are also included.

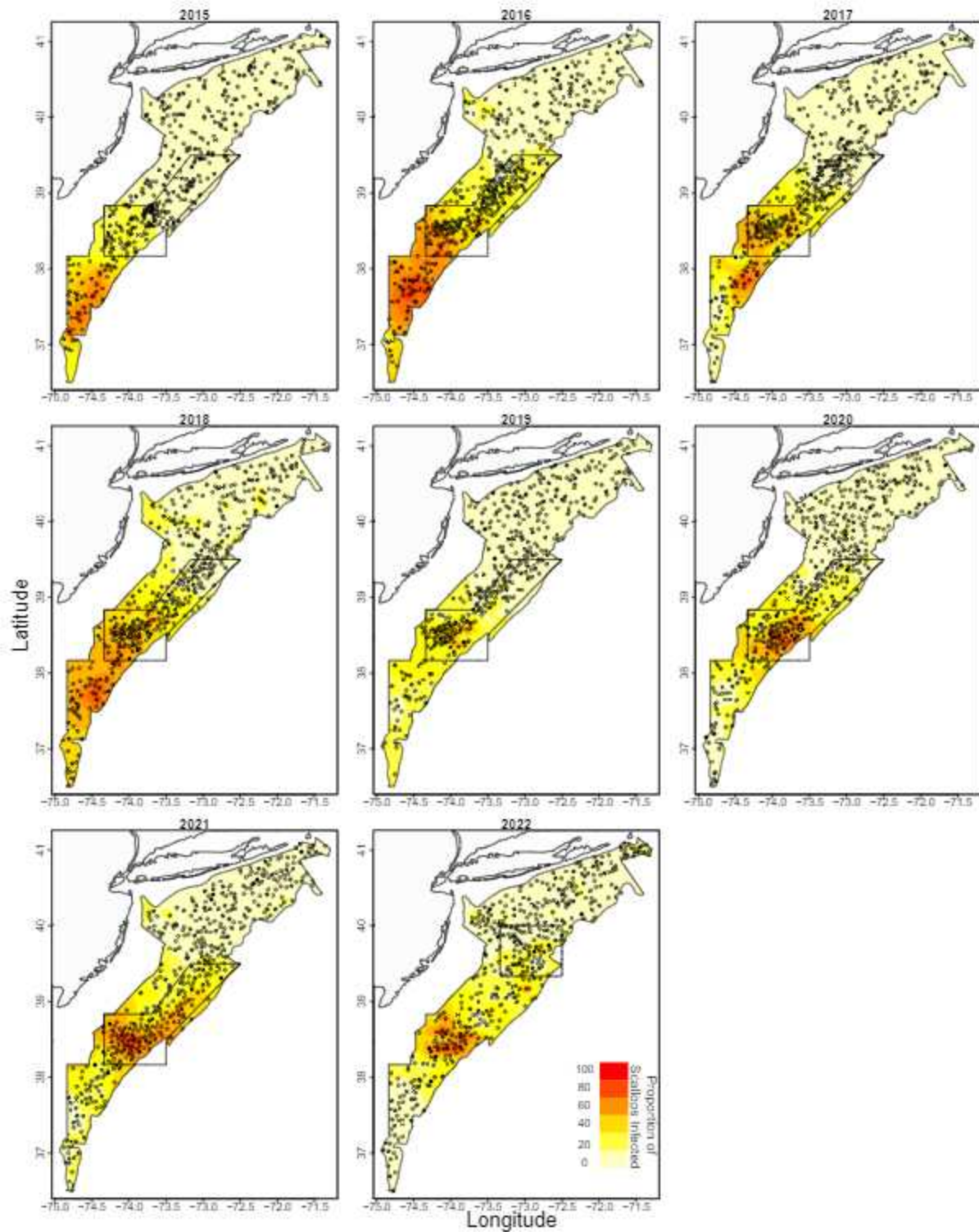


Figure 8: Proportion of scallops infected with nematodes for 2015-2022 in the VIMS/Industry cooperative survey of the Mid-Atlantic sea scallop resource area.

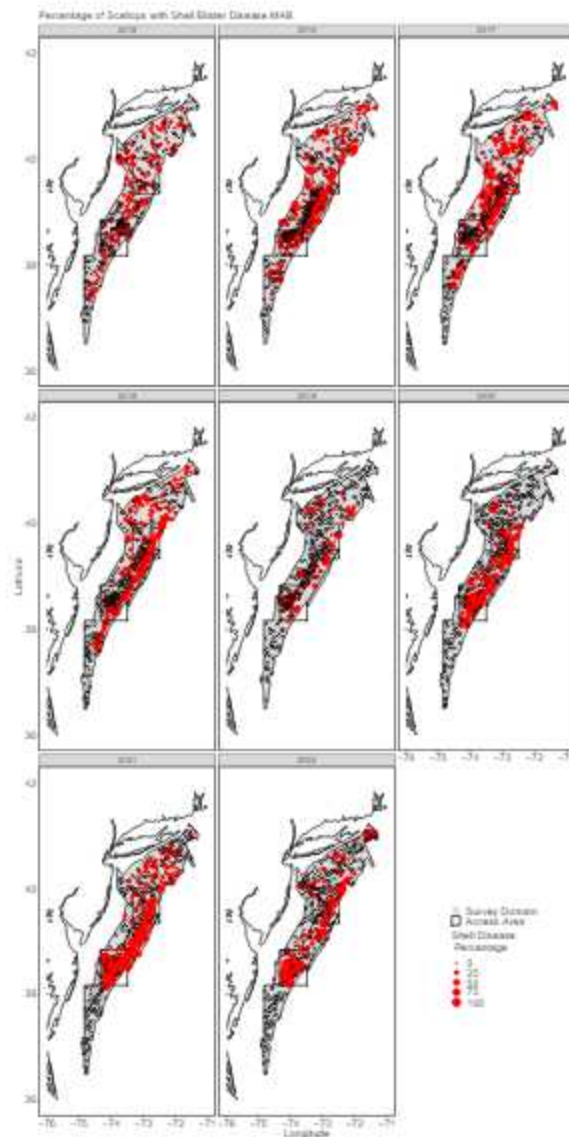


Figure 9: Proportion of scallops infected with shell blister disease for 2015-2022 in the VIMS/Industry cooperative survey of the Mid-Atlantic sea scallop resource area.

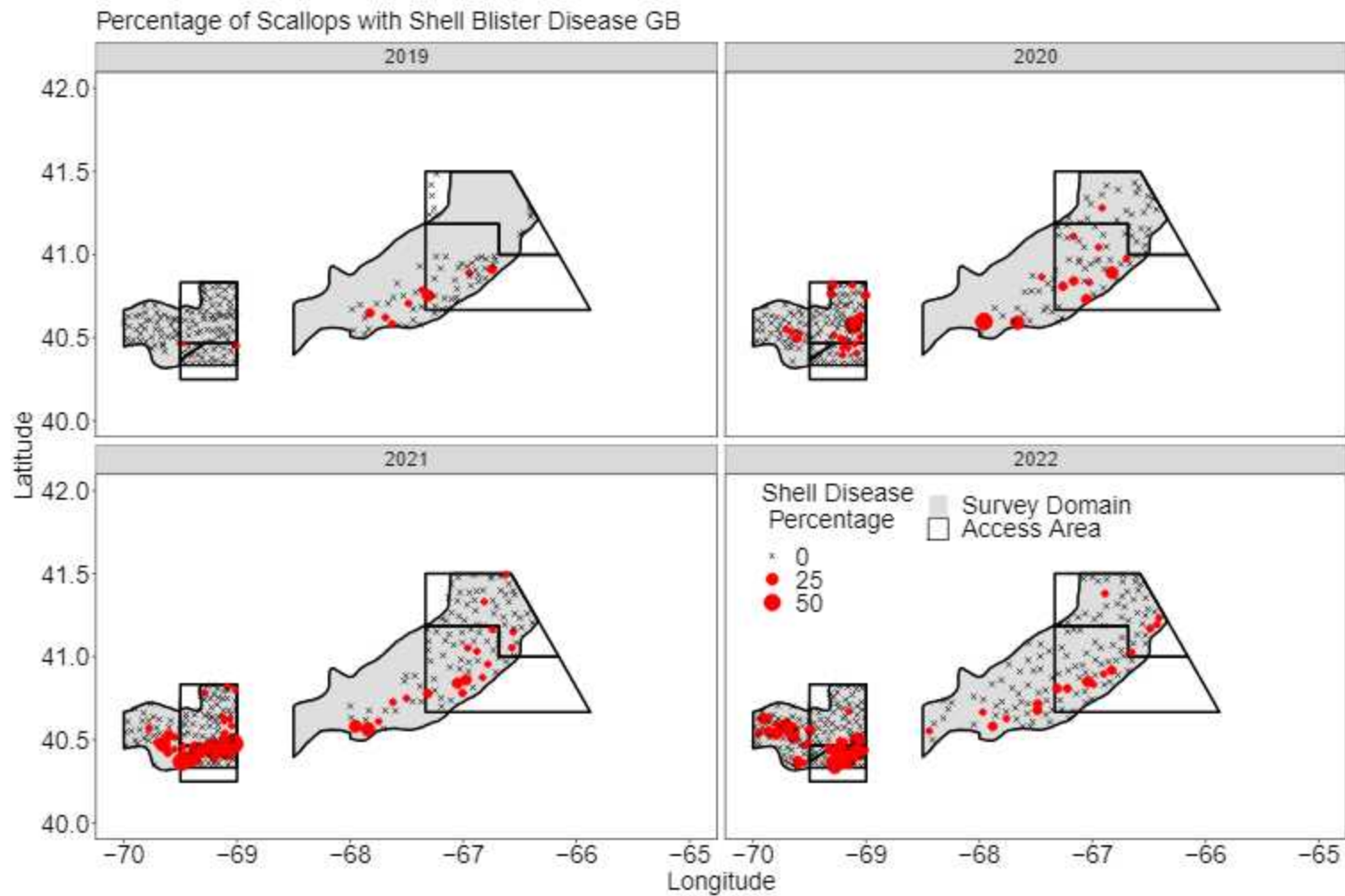


Figure 10: Proportion of scallops infected with shell blister disease for 2015-2022 in the VIMS/Industry cooperative survey of the Mid-Atlantic sea scallop resource area.