

Oceans and Climate Branch CTD Data Report
CTD_REPORT_202201WJ

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DATE: 5 December 2022

Oceans and Climate Branch CTD Data Report

CTD_REPORT_2022002HB

NOAA Fisheries Service
Northeast Fisheries Science Center
Woods Hole, MA 02543

HB 2202
Spring Bottom Trawl Survey
Data Coverage: March 4 – May 11, 2022
Mid Atlantic Bight, Georges Bank, Gulf of Maine

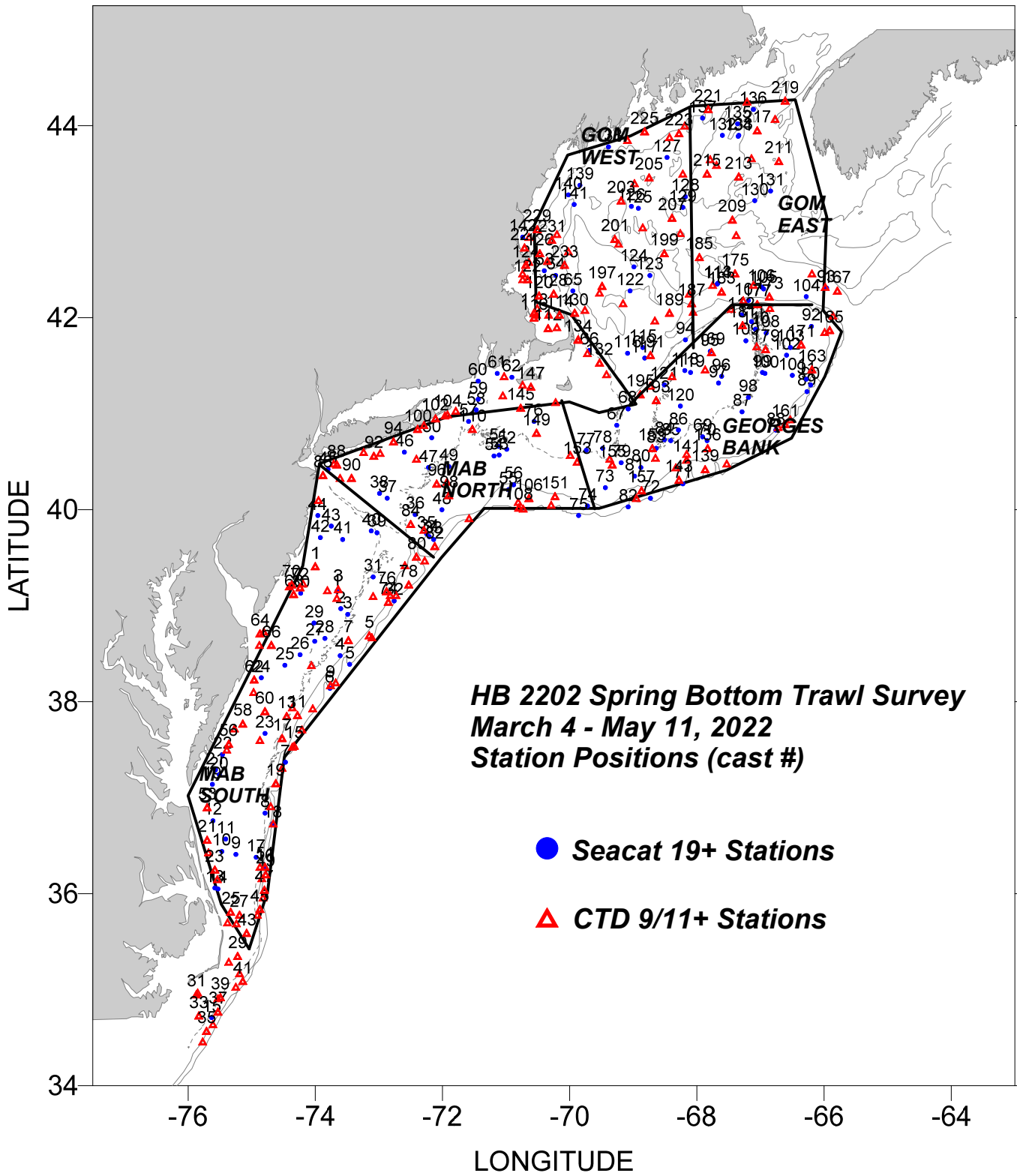
This report presents a summary of surface and bottom temperature and salinity data collected during the Northeast Fisheries Science Center's HB2202 Spring Bottom Trawl Survey aboard the NOAA FSV *Henry B Bigelow*. Data was obtained with a Sea-Bird Electronics SBE Model 19+V2 profiling CTD (s/n 7037 & 6128) during double oblique bongo tows and a SBE Model 9/11+ s/n 0420 during vertical casts. Sea water samples were taken for the purpose of calibrating salinity values. An SBE43 Dissolved Oxygen sensor and a Biospherical Instruments Inc. QSP2300 PAR (Photosynthetically Active Radiation) sensor were attached to the SBE 9/11+.

An SBE19+V2 was deployed on 115 double oblique bongo casts, 1 vertical cast, and 26 water sampling casts. The SBE9/11+ was used successfully on 231 stations.

Data presented here have been audited, however, corrections and/or updates may be applied at a later time.

The most recent and complete station data can be found by contacting [Dr. Chris Melrose](#)

Revised: October 27, 2022



**Areal average surface and bottom temperature/salinity and temperature/salinity anomalies for the
HB2202 Spring Bottom Trawl Survey
March 4 - May 11, 2022**

		SURFACE TEMPERATURE						BOTTOM TEMPERATURE					
Region	CD	#obs	Temp (°C)	Anomaly	SDV1	SDV2	Flag	#obs	Temp (°C)	Anomaly	SDV1	SDV2	Flag
WGOM	120	54	7.39	1.33	0.15	0.75	0	54	7.19	2.30	0.14	0.66	0
EGOM	122	34	7.07	1.24	0.15	0.72	0	31	8.96	1.97	0.19	0.60	0
GB	107	67	7.61	1.92	0.19	0.97	0	67	8.32	2.18	0.18	1.28	0
MABN	85	53	7.63	2.78	0.24	0.73	0	53	8.34	2.50	0.27	1.23	0
MABS	71	94	9.67	3.45	0.19	2.77	0	93	9.49	3.23	0.23	1.75	0

		SURFACE SALINITY						BOTTOM SALINITY					
Region	CD	#obs	Salinity	Anomaly	SDV1	SDV2	Flag	#obs	Salinity	Anomaly	SDV1	SDV2	Flag
WGOM	120	54	32.73	0.26	0.06	0.27	0	54	33.45	0.18	0.04	0.30	0
EGOM	122	34	32.40	-0.10	0.08	0.28	0	31	34.45	0.32	0.05	0.23	0
GB	107	67	33.03	0.02	0.06	0.29	0	67	33.52	0.15	0.06	0.47	0
MABN	85	53	32.89	-0.01	0.10	0.48	0	53	33.74	0.16	0.10	0.38	0
MABS	71	94	33.78	0.54	0.11	0.91	0	93	34.20	0.52	0.09	0.47	0

"Region"; WGOM is the Western Gulf of Maine; EGOM is the Eastern Gulf of Maine; GB is Georges Bank; MABN is the northern Mid-Atlantic Bight; MABS is the southern Mid-Atlantic Bight;

"CD": the calendar mid-date of all the stations within a region for a cruise;

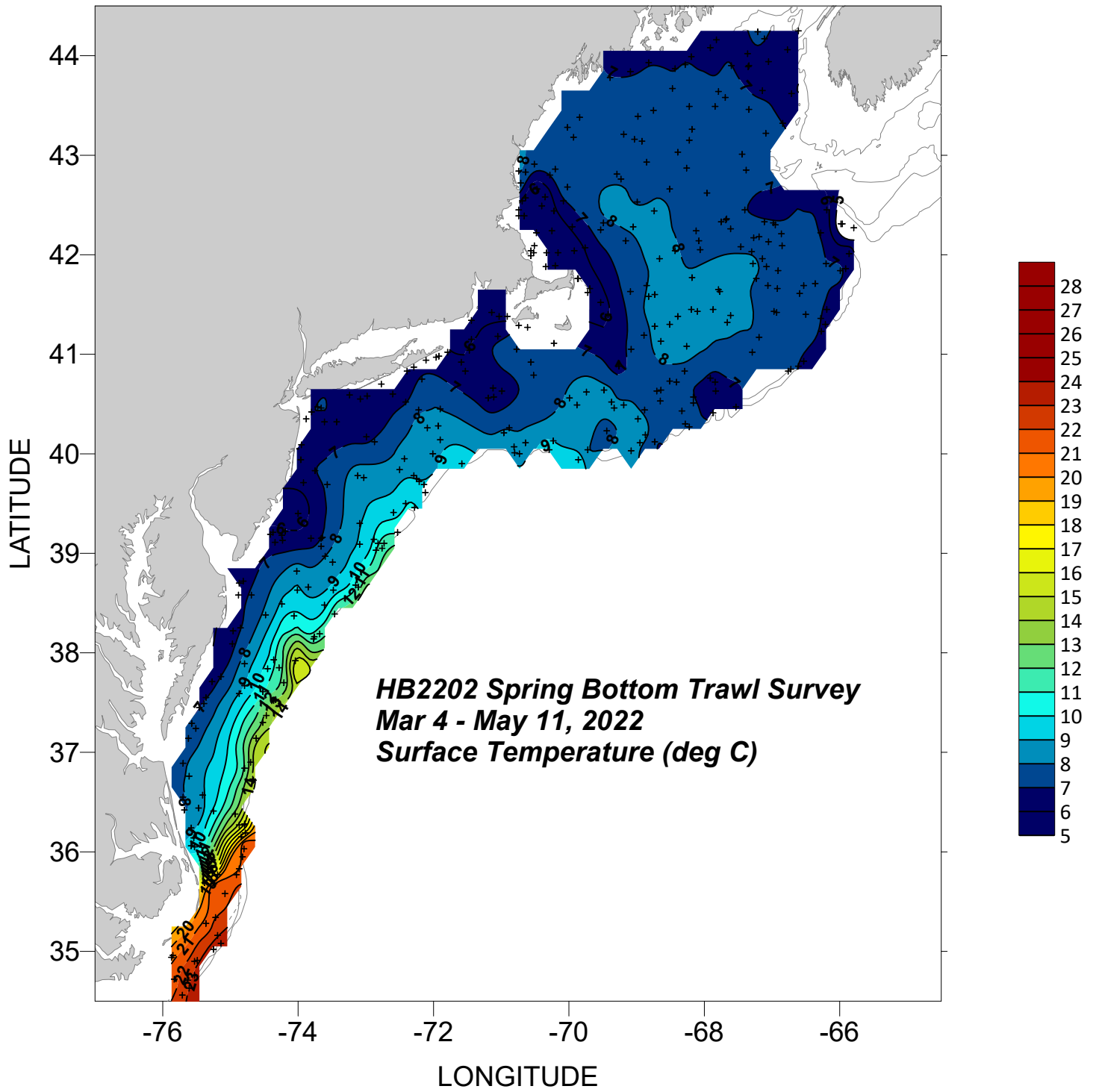
"#obs": the number of observations include in each average;

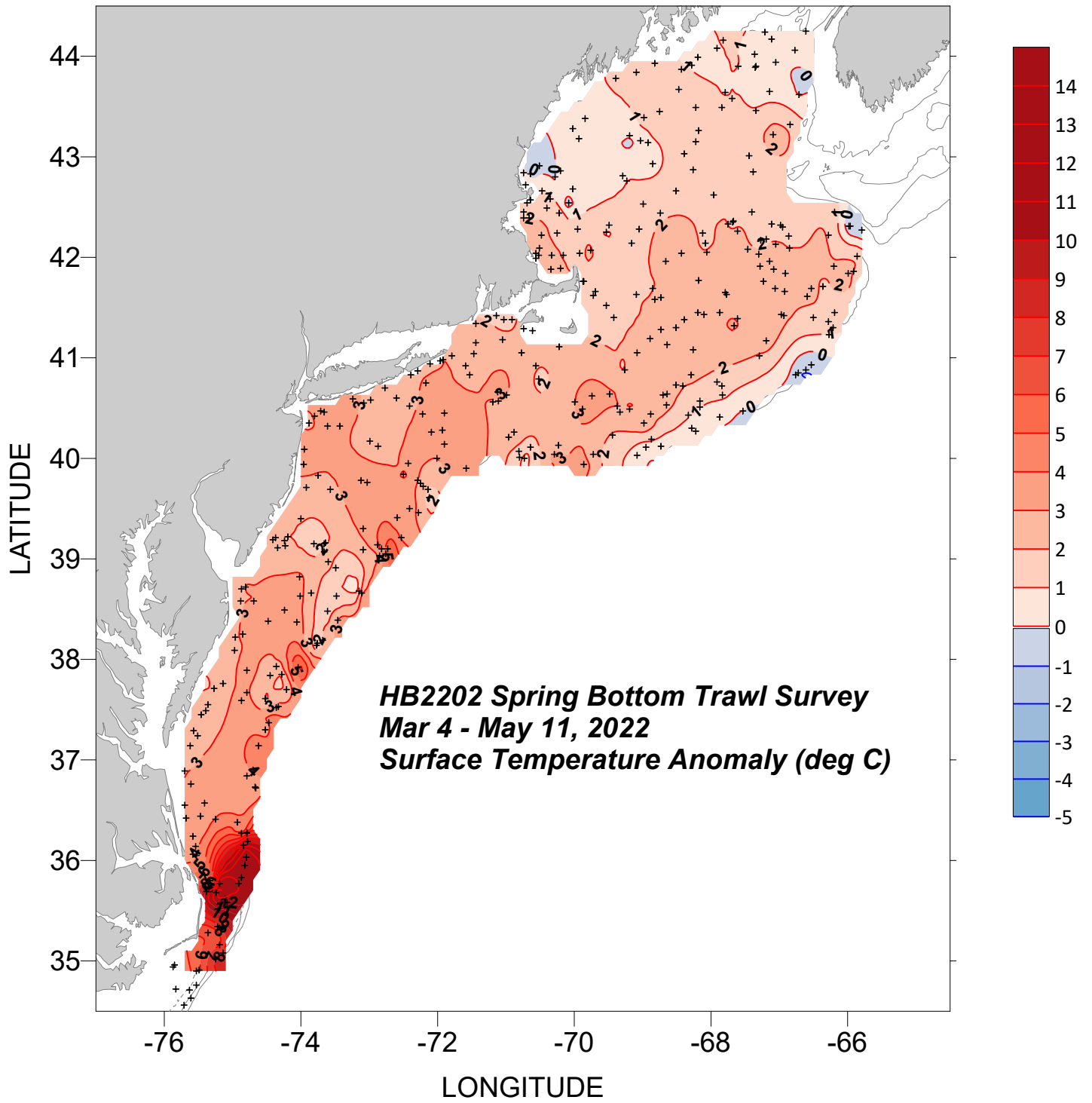
"Temp (°C)" and "Salinity": the areal averaged temperature or salinity; "Anomaly": the areal averaged temp/salt anomaly;

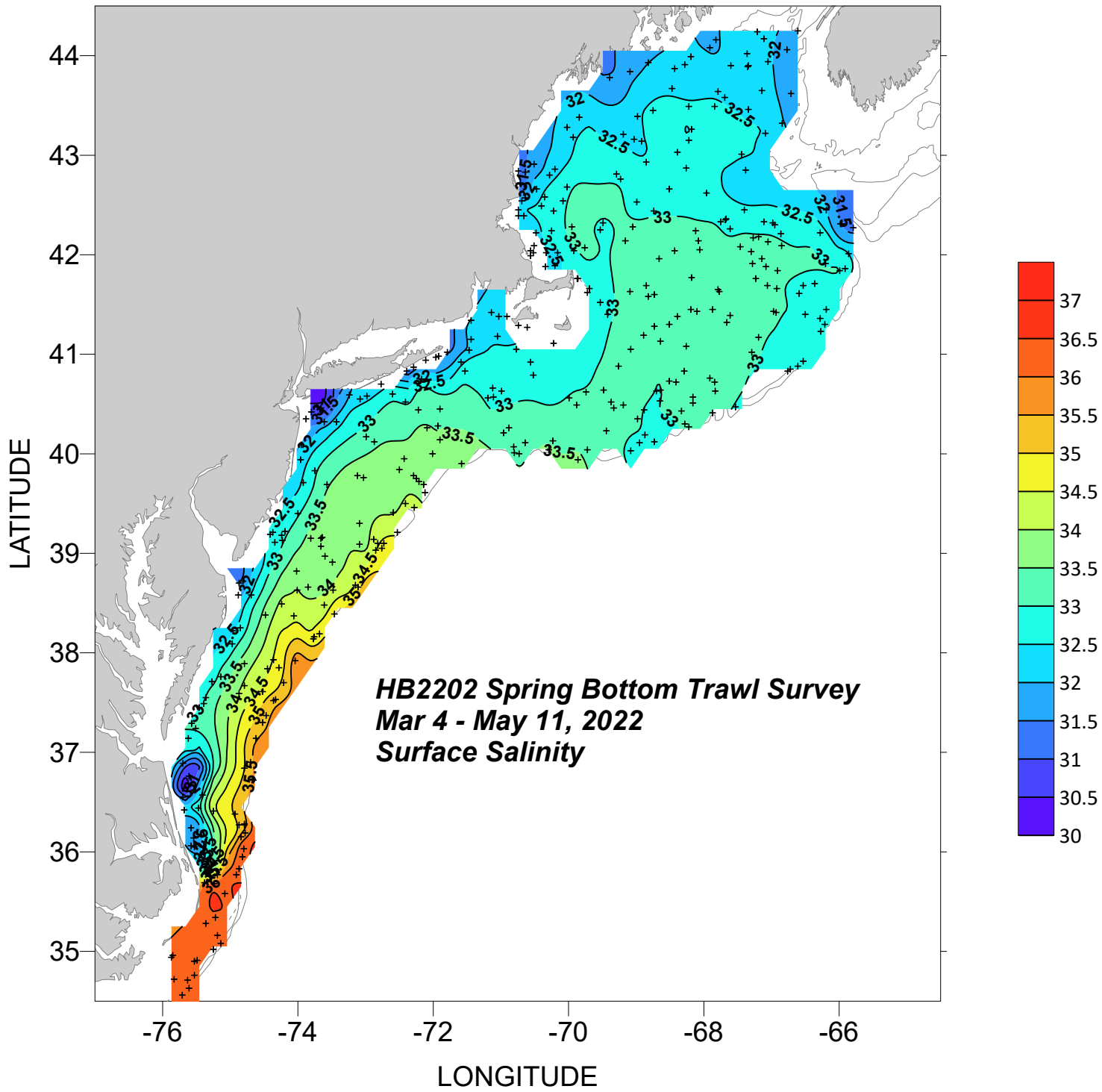
"SDV1": the standard deviation associated with the average temp/salt anomaly;

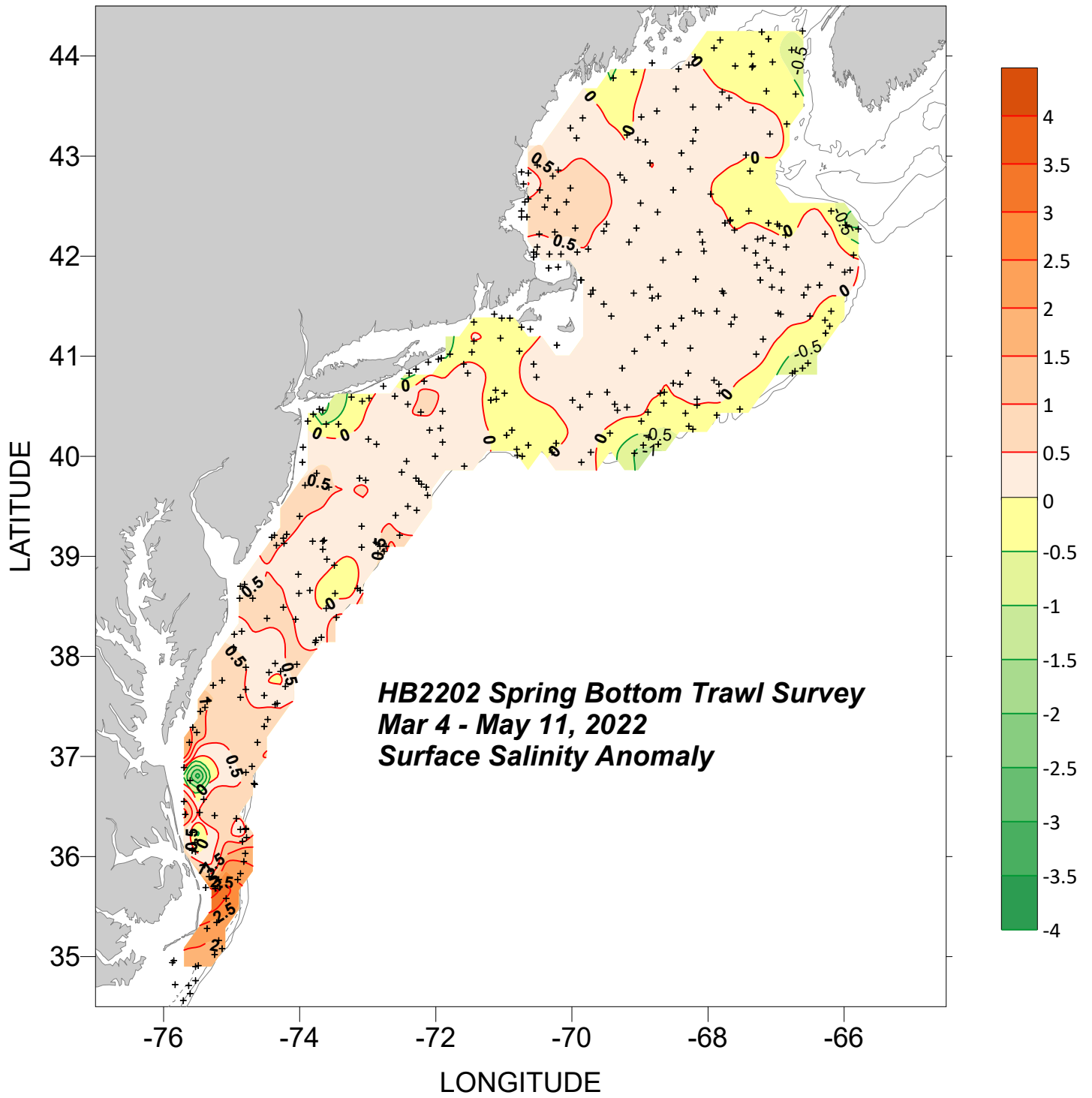
"SDV2": the standard deviation of the individual anomalies from which the average anomaly was derived;

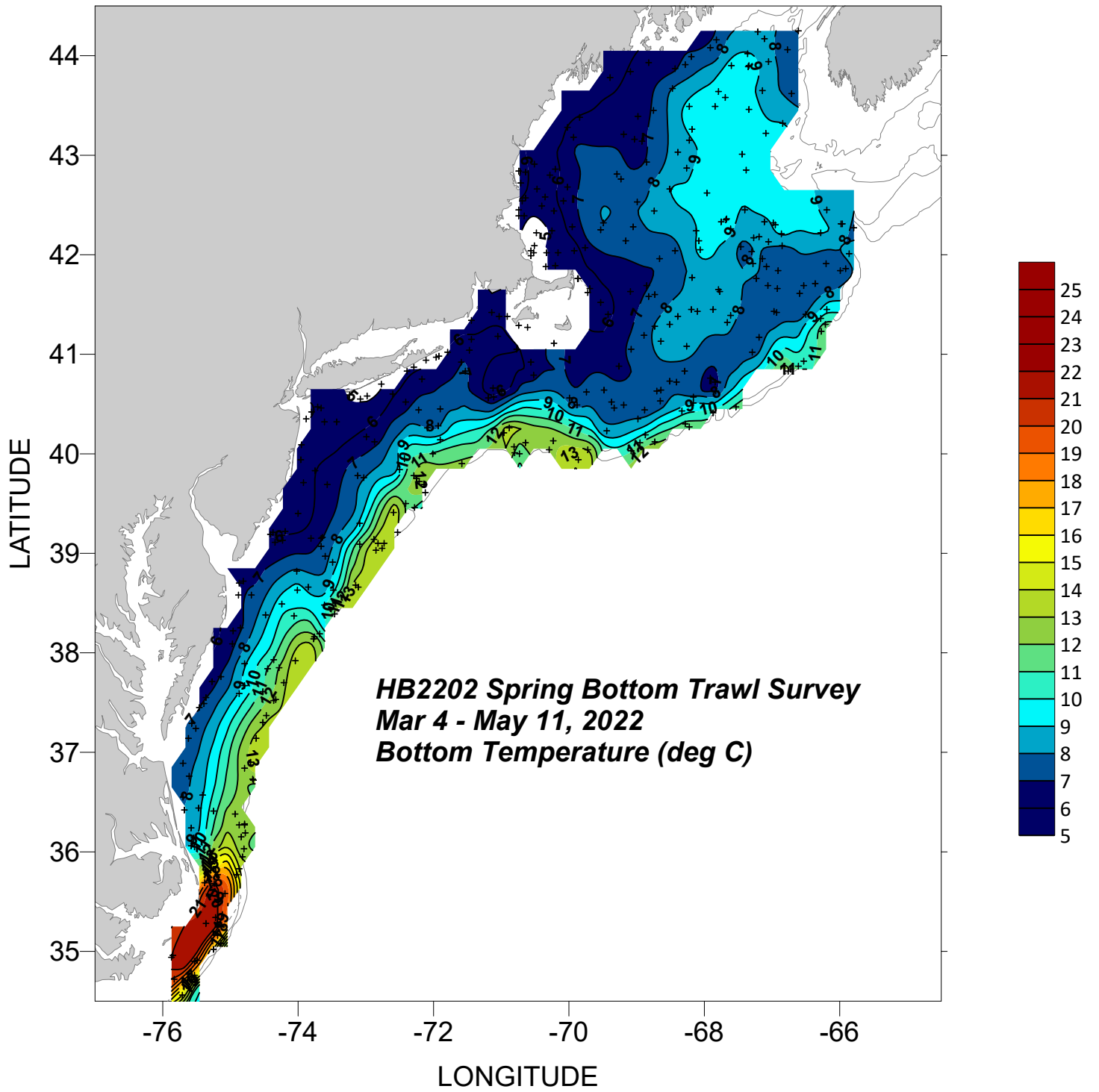
"Flag": a value of "1" indicates that a true areal average could not be calculated due to poor station coverage. The areal averages listed were derived from a simple average of the observations within the region.

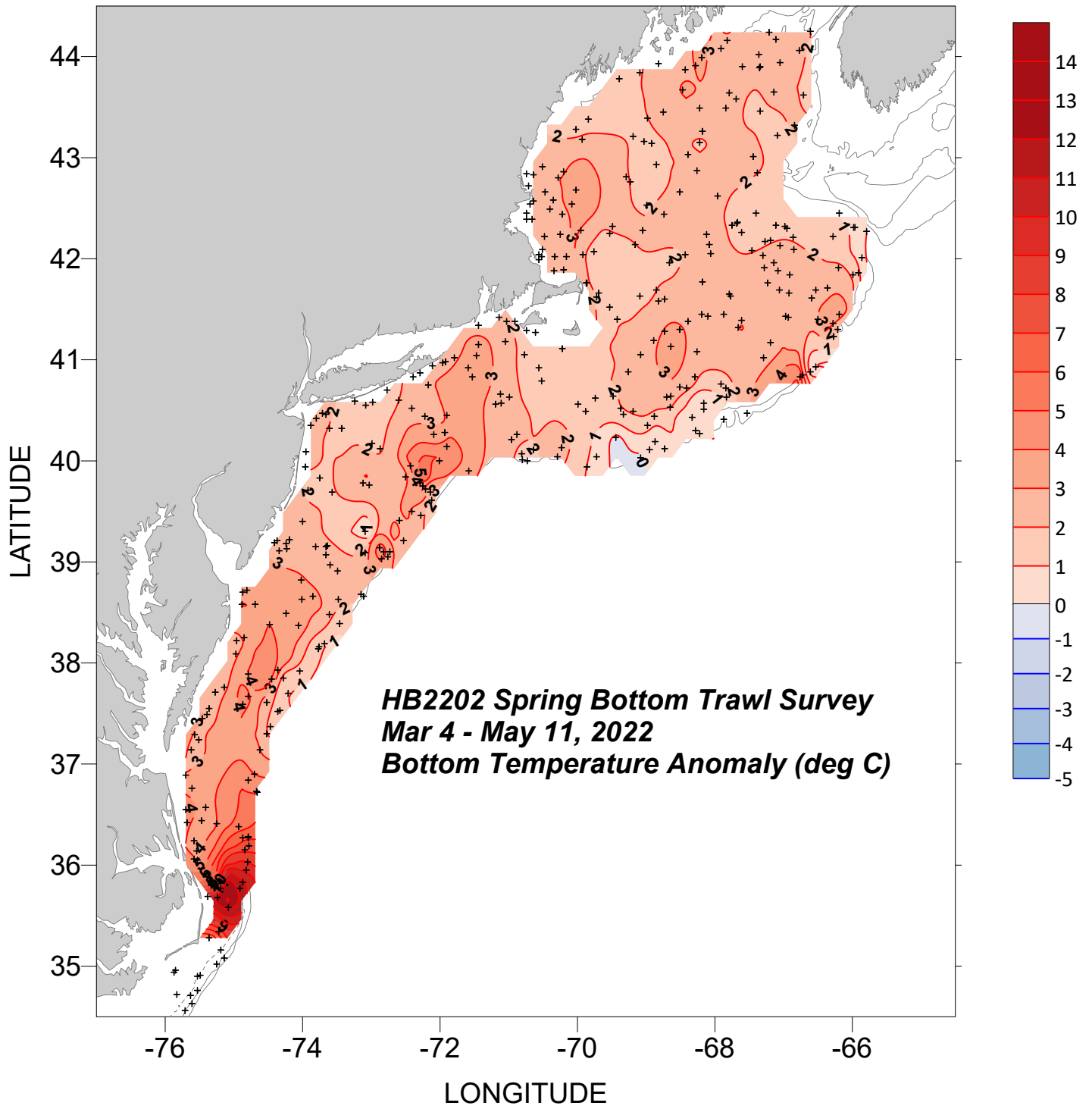


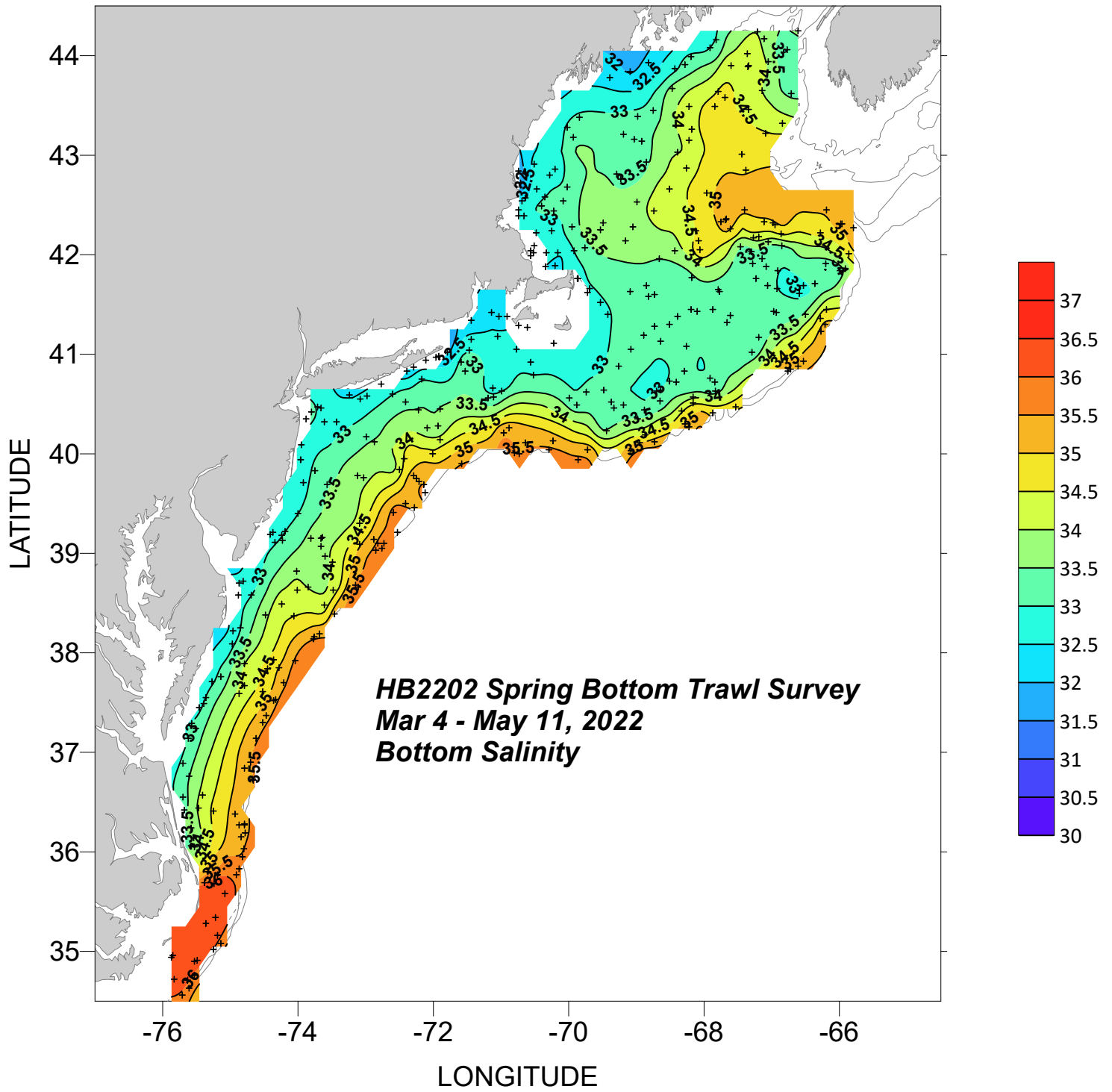


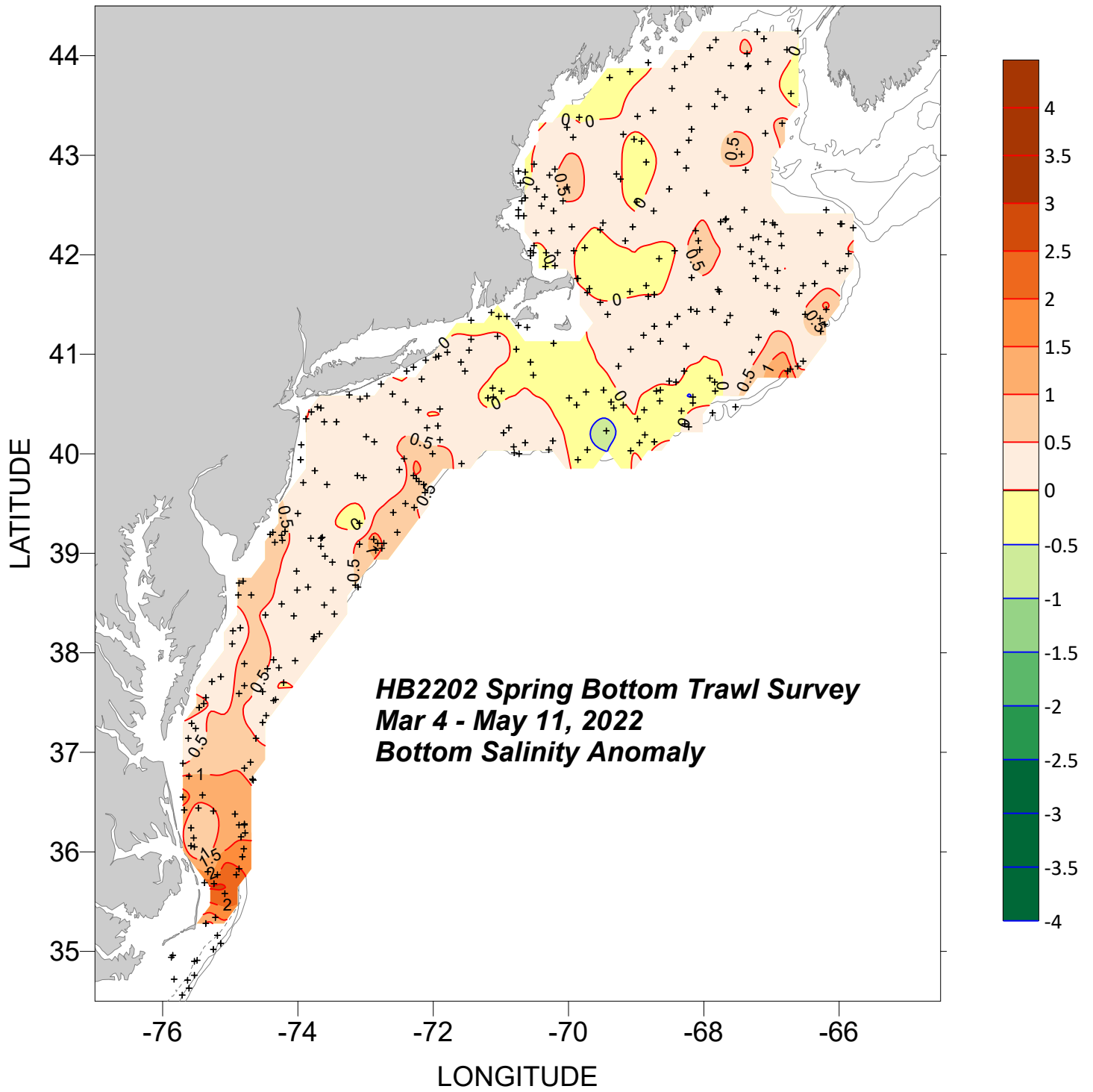












**HB2202 Spring Bottom Trawl Survey
March 4 - May 1, 2022**

Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
1	4746	3924.1	7359.8	4	3	2022	11:04	24	5.37	32.95	5.38	32.95	5	V
2	4787	3909.1	7348.7	4	3	2022	14:08	35	6.35	33.66	6.33	33.67	3	W
1	4867	3909.1	7339.5	4	3	2022	15:51	35	7.12	33.85	7.00	33.85	15	B
3	4867	3909.3	7338.5	4	3	2022	17:24	36	7.09	33.83	6.97	33.83	5	V
4	4834	3904.2	7339.6	4	3	2022	19:06	45	7.44	33.88	7.17	33.87	5	V
2	4829	3858.1	7335.8	4	3	2022	20:53	50	8.20	33.92	7.59	33.90	5	B
3	4604	3854.9	7329.4	4	3	2022	22:35	58	8.48	33.94	8.05	33.91	6	B
5	4765	3840.6	7309.1	5	3	2022	1:36	138	9.96	34.27	13.75	35.68	3	V
6	4875	3839.5	7306.9	5	3	2022	3:19	239	13.27	35.48	13.13	35.66	4	V
7	4763	3837.5	7329.1	5	3	2022	6:26	74	9.23	33.98	9.14	34.06	3	V
4	4656	3829.0	7336.7	5	3	2022	8:17	75	9.59	34.14	9.59	34.14	4	B
5	4897	3823.5	7327.7	5	3	2022	10:16	127	12.34	35.10	13.70	35.57	1	W
8	4732	3811.2	7340.9	5	3	2022	13:59	366	11.19	34.74	8.03	35.17	1	V
9	4906	3809.7	7345.8	5	3	2022	16:45	127	10.30	34.38	13.47	35.47	5	V
6	4563	3808.3	7346.0	5	3	2022	18:19	188	10.59	34.54	13.32	35.68	6	B
10	4734	3755.3	7402.1	5	3	2022	22:31	144	16.82	36.08	13.80	35.66	4	V
11	4632	3751.1	7416.6	6	3	2022	0:58	79	10.91	34.60	11.90	34.97	5	V
12	4578	3755.6	7421.7	6	3	2022	2:32	62	10.34	34.40	10.38	34.44	4	V
13	4639	3750.2	7427.0	6	3	2022	4:01	61	10.47	34.47	11.20	34.74	4	V
14	4739	3742.1	7412.6	6	3	2022	6:09	176	12.02	35.02	12.98	35.38	3	V
15	4881	3732.1	7419.5	6	3	2022	8:07	221	13.20	35.36	12.11	35.53	3	W
16	4809	3731.4	7421.9	6	3	2022	9:45	113	13.23	35.37	12.55	35.22	4	V
17	4896	3736.3	7431.1	6	3	2022	11:38	61	10.68	34.52	10.79	34.57	4	V
7	4720	3722.1	7428.1	6	3	2022	13:48	210	13.70	35.50	12.96	35.48	5	B
18	4888	3718.2	7431.2	6	3	2022	15:29	130	12.20	35.11	12.83	35.36	5	V
19	4705	3708.7	7437.3	6	3	2022	17:37	95	14.19	35.60	13.49	35.47	6	V
20	4541	3654.2	7442.3	6	3	2022	19:52	84	13.58	35.45	13.77	35.56	6	V
8	4650	3650.4	7447.3	6	3	2022	21:48	60	11.62	NaN	12.60	35.26	7	B

HB2202 Spring Bottom Trawl Survey
March 4 - May 1, 2022

Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
9	4638	3624.3	7515.0	7	3	2022	6:03	36	10.13	34.41	10.62	34.61	5	B
10	4643	3626.4	7528.2	7	3	2022	8:06	30	8.39	32.70	8.75	34.10	4	W
11	4895	3634.3	7524.5	7	3	2022	9:56	24	8.77	34.06	8.73	34.06	5	B
12	4882	3645.6	7536.9	7	3	2022	12:29	24	9.02	26.97	7.96	33.73	5	B
21	4727	3633.0	7542.3	7	3	2022	14:49	20	7.50	31.96	7.76	33.17	5	V
22	4723	3625.1	7540.7	7	3	2022	16:15	21	7.96	32.29	8.08	33.35	4	V
23	4876	3614.3	7535.0	7	3	2022	18:01	27	8.48	31.45	8.36	33.76	5	V
24	4795	3608.7	7532.5	7	3	2022	19:18	23	9.31	30.72	8.32	33.44	5	V
13	4661	3603.5	7534.6	7	3	2022	20:35	20	9.02	31.84	8.36	33.15	5	B
14	4733	3603.0	7531.5	7	3	2022	22:26	26	9.26	31.74	8.63	33.43	5	B
25	4673	3548.3	7519.8	8	3	2022	1:00	32	10.79	31.35	12.57	34.91	4	V
26	4648	3541.4	7522.9	8	3	2022	5:20	24	18.48	36.35	18.32	36.34	6	W
27	4557	3546.0	7511.1	8	3	2022	8:08	34	21.83	36.35	21.85	36.35	5	V
28	4767	3540.7	7514.7	8	3	2022	11:04	30	21.88	36.36	21.78	36.36	3	V
29	4568	3520.7	7513.2	8	3	2022	14:02	29	21.97	36.34	22.00	36.34	5	V
30	4799	3517.0	7521.5	8	3	2022	15:56	21	21.34	36.37	21.34	36.38	5	V
31	4769	3456.4	7552.0	8	3	2022	20:46	25	21.22	36.38	21.23	36.38	5	V
32	5281	3457.6	7551.2	8	3	2022	21:50	23	20.56	36.37	20.56	36.37	4	V
33	5121	3443.1	7549.9	9	3	2022	2:00	36	21.15	36.40	21.05	36.41	4	V
34	4856	3426.7	7546.3	9	3	2022	4:39	249	22.65	36.31	12.49	35.61	2	V
35	4704	3433.6	7542.4	9	3	2022	7:40	178	22.68	36.33	15.10	35.99	3	V
36	4545	3438.1	7536.9	9	3	2022	10:16	245	22.79	36.32	11.35	35.45	2	V
15	4535	3442.8	7537.8	9	3	2022	12:33	89	23.46	36.25	19.51	36.42	4	W
37	4694	3445.7	7531.8	9	3	2022	14:36	168	23.01	36.31	12.79	35.65	3	V
38	4642	3454.2	7531.8	9	3	2022	17:56	54	22.37	36.34	21.56	36.38	5	V
39	4892	3454.4	7529.3	9	3	2022	19:29	67	23.09	36.29	21.36	36.34	4	V
40	4626	3501.4	7515.1	9	3	2022	21:55	159	23.48	36.27	15.93	36.06	6	V
41	4721	3504.5	7508.5	10	3	2022	0:38	330	23.61	36.26	10.82	35.37	8	V

**HB2202 Spring Bottom Trawl Survey
March 4 - May 1, 2022**

Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
42	4559	3509.7	7511.4	10	3	2022	3:24	65	22.74	36.29	21.13	36.31	4	W
43	4874	3534.8	7504.9	10	3	2022	7:57	38	21.06	36.37	20.11	36.40	4	V
44	4744	3545.9	7454.5	10	3	2022	10:12	74	21.42	36.31	14.12	35.63	5	V
45	4845	3549.8	7452.4	10	3	2022	11:24	166	20.77	36.28	13.60	35.59	2	V
46	4814	3556.8	7449.2	10	3	2022	13:24	135	21.49	36.33	13.56	35.54	2	V
47	4658	3602.1	7447.8	10	3	2022	15:20	192	21.55	36.32	11.56	35.48	2	V
48	4678	3609.0	7450.4	10	3	2022	17:35	97	20.52	36.22	13.39	35.42	5	W
49	4773	3611.4	7446.7	10	3	2022	19:26	233	20.24	36.15	11.96	35.53	3	V
50	4731	3616.4	7452.2	10	3	2022	22:34	78	13.88	34.63	12.97	35.20	7	V
51	4725	3616.3	7447.1	11	3	2022	1:02	160	16.65	35.46	12.78	35.33	6	V
16	4597	3616.7	7447.1	11	3	2022	2:53	143	16.30	NaN	12.81	35.43	2	B
17	4551	3622.9	7455.9	11	3	2022	5:18	44	12.85	NaN	12.86	35.18	5	B
18	4598	3644.0	7440.5	11	3	2022	8:20	130	14.60	NaN	13.74	35.49	4	W
52	4621	3643.4	7439.6	11	3	2022	10:05	255	14.65	35.69	11.43	35.47	5	W
53	4861	3653.3	7541.9	13	3	2022	16:44	22	7.41	32.95	7.35	32.97	8	V
19	4780	3708.4	7537.3	13	3	2022	19:06	18	7.39	32.95	7.16	33.03	6	B
20	4696	3714.4	7530.4	13	3	2022	21:30	24	7.42	33.19	7.37	33.22	7	B
21	4565	3717.2	7534.0	13	3	2022	22:58	19	7.23	NaN	7.24	33.06	5	W
22	4907	3726.7	7527.9	14	3	2022	3:29	20	6.95	32.89	6.97	32.89	4	B
55	4866	3729.2	7523.5	14	3	2022	5:05	20	7.21	33.20	7.22	33.20	4	V
56	4770	3733.3	7521.8	14	3	2022	6:34	24	6.99	33.15	6.99	33.15	5	V
57	4538	3742.6	7516.0	14	3	2022	8:31	20	6.66	32.83	6.67	32.85	6	V
58	4602	3745.7	7508.1	14	3	2022	10:10	26	6.85	33.16	6.87	33.17	5	V
59	4825	3735.6	7452.2	14	3	2022	12:33	35	9.15	34.16	9.16	34.16	5	W
23	4764	3740.5	7447.4	14	3	2022	14:10	45	8.85	33.97	9.27	34.18	5	B
60	4778	3753.5	7447.2	14	3	2022	16:29	32	8.62	33.86	9.11	34.11	5	V
61	4594	3805.6	7458.3	14	3	2022	18:43	22	6.56	32.74	6.52	32.78	5	V
62	4810	3813.0	7457.5	14	3	2022	20:58	22	6.73	32.27	6.38	32.51	6	V

**HB2202 Spring Bottom Trawl Survey
March 4 - May 1, 2022**

Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
24	4735	3814.9	7450.9	14	3	2022	23:07	24	6.96	32.65	6.86	32.99	6	B
63	4614	3834.6	7453.0	15	3	2022	2:08	24	6.74	31.96	6.95	32.87	7	V
64	4782	3841.9	7452.3	15	3	2022	3:38	22	6.41	31.24	6.86	32.74	5	V
65	4586	3843.1	7448.9	15	3	2022	4:57	17	6.75	31.28	6.72	32.44	4	V
66	4811	3834.6	7441.3	15	3	2022	6:44	19	7.02	32.70	6.95	32.94	5	V
25	4823	3822.5	7428.8	15	3	2022	8:48	39	8.15	33.69	8.63	33.94	5	B
26	4603	3829.4	7414.6	15	3	2022	11:25	49	9.22	34.17	9.65	34.32	5	W
67	4585	3822.0	7403.8	15	3	2022	13:25	62	10.16	34.37	10.24	34.39	3	V
27	4738	3837.6	7400.4	15	3	2022	15:59	50	9.23	34.03	9.47	34.17	5	B
28	4774	3839.5	7351.1	15	3	2022	17:58	49	8.51	NaN	8.71	33.98	6	B
29	4700	3849.0	7400.9	15	3	2022	20:01	46	8.57	33.86	8.14	33.90	6	B
68	4653	3906.4	7420.5	15	3	2022	23:00	24	6.73	32.80	6.02	33.07	4	V
69	4870	3911.5	7424.5	16	3	2022	0:27	18	6.16	32.65	5.89	32.73	4	V
70	4865	3912.6	7422.1	16	3	2022	1:45	19	6.16	32.68	5.88	32.73	3	V
71	4805	3913.3	7411.7	16	3	2022	3:24	25	6.16	32.90	5.86	33.03	4	V
72	5112	3910.8	7414.6	16	3	2022	4:26	18	5.98	32.87	5.97	32.88	4	W
30	4623	3907.9	7414.1	16	3	2022	5:31	19	6.23	32.89	6.08	32.95	5	B
31	4622	3918.1	7305.2	16	3	2022	11:28	65	8.99	33.97	8.15	33.91	5	B
73	4903	3905.3	7305.2	16	3	2022	13:29	69	9.22	33.99	12.03	35.01	2	V
74	4573	3902.0	7251.1	16	3	2022	15:30	109	9.45	33.97	13.61	35.66	3	V
32	4761	3903.0	7245.5	16	3	2022	19:01	144	12.38	34.94	13.49	35.61	6	B
75	4707	3906.0	7249.2	16	3	2022	20:55	107	10.02	34.14	13.50	35.67	2	V
76	4812	3908.6	7253.0	16	3	2022	22:43	86	9.85	33.90	13.54	35.62	2	V
77	4577	3906.2	7243.9	17	3	2022	0:14	134	12.43	34.95	13.52	35.62	2	V
78	4816	3912.7	7231.5	17	3	2022	2:16	163	10.77	34.35	13.48	35.65	3	W
79	4660	3924.5	7235.3	17	3	2022	4:32	112	9.38	33.88	13.84	35.72	4	V
80	4668	3930.2	7224.4	17	3	2022	7:10	139	10.23	34.20	13.66	35.63	2	V
81	4853	3927.5	7216.6	17	3	2022	8:52	426	10.10	34.13	7.78	35.17	2	V

HB2202 Spring Bottom Trawl Survey
March 4 - May 1, 2022

Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
82	4873	3936.3	7207.3	17	3	2022	11:34	153	8.89	33.78	12.81	35.61	2	V
33	4645	3941.4	7208.6	17	3	2022	13:22	126	8.98	NaN	13.29	35.58	6	B
34	4813	3942.9	7212.7	17	3	2022	15:13	117	9.45	NaN	13.46	35.55	4	W
35	4616	3944.9	7215.0	17	3	2022	16:47	96	8.98	NaN	13.02	35.37	8	B
83	4708	3946.8	7217.6	17	3	2022	18:18	91	8.91	33.70	12.81	35.41	2	V
84	4627	3950.5	7229.8	17	3	2022	20:13	63	8.32	33.69	8.10	33.79	3	V
36	4644	3956.8	7225.8	17	3	2022	21:40	69	8.57	33.59	11.02	34.91	8	B
37	4672	4007.0	7252.3	18	3	2022	0:44	50	7.10	33.44	6.65	33.50	5	B
38	4729	4010.4	7259.6	18	3	2022	2:32	48	6.56	NaN	6.43	33.45	7	W
39	4900	3945.5	7301.7	18	3	2022	7:11	56	8.57	NaN	7.86	33.88	4	B
40	4750	3946.7	7307.0	18	3	2022	7:47	48	8.63	33.78	7.93	33.87	6	B
41	4902	3941.6	7334.0	18	3	2022	10:40	37	7.18	33.50	6.51	33.50	5	B
42	4536	3942.3	7355.2	18	3	2022	13:29	26	6.25	32.43	5.62	32.81	5	B
43	4549	3949.5	7344.9	18	3	2022	15:28	28	6.94	33.04	6.00	33.10	6	B
44	4803	3956.2	7357.7	18	3	2022	17:32	19	7.36	32.13	5.63	32.78	5	B
85	4804	4005.1	7357.1	18	3	2022	19:40	22	6.94	32.07	5.77	32.85	5	V
86	4752	4021.1	7352.8	18	3	2022	22:23	22	6.73	31.08	6.07	33.05	4	V
45	4580	4025.5	7348.0	18	3	2022	23:51	34	6.97	30.82	6.15	33.25	6	B
87	4574	4028.4	7342.6	19	3	2022	1:29	25	7.21	30.12	5.93	32.94	4	V
88	4802	4027.6	7339.7	19	3	2022	2:35	24	7.27	30.05	5.86	32.83	4	V
89	4666	4019.1	7336.7	19	3	2022	4:13	23	6.46	31.87	5.14	32.53	4	V
90	4836	4019.2	7325.7	19	3	2022	5:52	30	6.46	32.26	5.10	32.82	6	W
91	4741	4035.6	7314.6	19	3	2022	8:43	19	6.72	32.21	5.02	32.38	4	V
92	4613	4032.9	7304.6	19	3	2022	10:20	27	5.90	32.42	4.73	32.58	4	V
93	4685	4034.9	7258.8	19	3	2022	11:36	25	6.19	32.32	4.76	32.62	4	V
94	4887	4041.9	7246.4	19	3	2022	13:20	27	6.06	32.26	4.83	32.55	5	V
46	4792	4035.9	7236.0	19	3	2022	14:54	39	6.73	33.05	5.91	33.06	5	B
95	4592	4031.1	7224.7	19	3	2022	16:33	47	6.79	32.93	6.55	33.31	2	V

**HB2202 Spring Bottom Trawl Survey
March 4 - May 1, 2022**

Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
47	4879	4026.2	7213.2	19	3	2022	18:08	59	NaN	NaN	7.40	33.54	5	B
96	4901	4015.7	7205.6	19	3	2022	20:00	62	8.85	33.57	7.64	33.59	3	W
97	4715	3954.2	7134.6	20	3	2022	0:06	243	9.71	33.89	12.50	35.59	4	V
48	4686	3959.8	7200.6	20	3	2022	3:39	84	8.59	33.54	11.10	34.61	4	B
98	4815	4008.4	7154.1	20	3	2022	6:08	79	9.04	33.57	10.16	34.22	3	V
99	4852	4016.6	7155.7	20	3	2022	8:13	65	8.28	33.45	7.47	33.53	4	V
49	4637	4026.9	7154.2	20	3	2022	10:17	67	8.05	33.39	7.56	33.52	4	B
50	4556	4044.9	7210.3	20	3	2022	13:22	44	7.30	33.04	6.72	33.34	4	W
100	4893	4049.7	7223.4	20	3	2022	15:24	22	6.19	31.15	5.86	32.21	4	W
101	4635	4052.1	7217.2	20	3	2022	17:01	22	6.43	31.09	5.65	31.88	3	V
102	4730	4056.2	7206.3	20	3	2022	18:54	20	6.49	31.01	5.55	31.98	4	V
103	4665	4058.3	7157.5	20	3	2022	20:35	24	6.42	30.90	5.78	32.12	4	V
104	4587	4058.9	7155.1	20	3	2022	22:01	22	6.46	31.07	5.94	31.84	4	V
105	4684	4101.0	7147.2	20	3	2022	23:40	25	6.08	31.35	6.12	31.75	5	V
51	4794	4039.4	7107.1	21	3	2022	4:23	64	6.67	32.73	5.40	32.90	14	B
52	4713	4037.8	7059.3	21	3	2022	6:20	68	6.24	32.84	5.13	32.87	3	B
53	4669	4034.3	7106.5	21	3	2022	7:57	70	6.34	32.73	5.52	32.92	3	B
54	4703	4033.7	7111.3	21	3	2022	9:16	69	6.39	32.86	5.71	32.95	4	B
55	4817	4012.4	7057.8	21	3	2022	12:36	129	8.03	33.29	13.67	35.53	3	W
56	4743	4015.3	7052.5	21	3	2022	14:43	121	8.12	33.30	13.52	35.45	4	B
106	4561	4006.7	7038.5	21	3	2022	17:32	127	8.22	33.30	13.61	35.62	3	V
107	4617	4000.1	7043.8	21	3	2022	19:56	274	8.51	33.32	9.82	35.29	3	V
108	4537	4000.6	7047.7	21	3	2022	22:00	267	8.52	33.33	11.11	35.43	3	V
109	4775	4003.9	7048.8	22	3	2022	0:01	157	8.29	33.29	13.63	35.68	3	W
110	4793	4049.9	7131.9	30	3	2022	20:53	63	6.32	32.98	7.32	33.39	5	V
57	4570	4055.2	7135.1	30	3	2022	23:40	54	5.94	32.12	6.83	33.21	5	B
58	4839	4102.6	7128.4	31	3	2022	2:07	46	6.02	31.96	6.93	33.21	5	B
59	4742	4109.1	7126.2	31	3	2022	4:56	26	6.03	32.49	6.02	32.54	6	B

HB2202 Spring Bottom Trawl Survey
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Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
60	4628	4120.4	7126.4	31	3	2022	7:47	30	5.47	32.05	5.58	32.15	5	W
61	4710	4125.5	7108.2	31	3	2022	10:34	24	5.31	32.28	5.29	32.30	4	B
111	4691	4122.5	7101.5	31	3	2022	12:50	28	5.10	32.14	5.10	32.26	7	V
62	4588	4123.0	7054.8	31	3	2022	15:12	33	5.06	NaN	5.03	32.34	5	B
112	4871	4152.9	7020.3	31	3	2022	21:35	30	5.48	32.44	5.26	32.52	7	V
113	4636	4153.5	7012.3	31	3	2022	23:51	27	5.17	32.41	5.16	32.41	5	W
114	4646	4201.2	7009.7	1	4	2022	1:54	28	5.27	32.32	5.20	32.34	5	V
115	4706	4201.4	7019.6	1	4	2022	3:46	54	5.25	32.49	5.08	32.54	8	V
116	4607	4159.7	7033.6	1	4	2022	6:18	31	5.60	32.26	5.16	32.46	6	V
117	4753	4201.4	7031.2	1	4	2022	8:03	38	5.51	32.24	4.91	32.62	5	V
118	4555	4202.4	7033.6	1	4	2022	10:51	29	5.63	32.24	5.04	32.54	5	V
119	4693	4205.6	7030.6	1	4	2022	14:04	45	5.56	32.25	4.63	32.63	5	V
120	4790	4213.2	7028.9	1	4	2022	15:57	65	5.47	32.31	4.71	32.72	5	V
121	4755	4223.2	7044.4	1	4	2022	19:13	44	5.57	32.49	5.07	32.81	4	V
122	4904	4223.5	7039.9	1	4	2022	23:43	68	5.30	32.33	5.15	32.87	4	W
123	4712	4227.1	7044.5	2	4	2022	2:58	49	5.32	32.40	5.08	32.74	3	V
124	4756	4232.3	7041.3	2	4	2022	5:12	48	5.16	32.37	5.11	32.71	6	V
125	4572	4234.4	7038.2	2	4	2022	8:42	43	5.10	32.28	5.10	32.70	6	V
126	4818	4239.4	7028.5	2	4	2022	12:07	46	4.81	32.30	5.01	32.80	5	V
127	4620	4234.6	7020.9	2	4	2022	14:23	113	5.21	32.67	5.57	33.14	8	V
63	4722	4229.6	7024.0	2	4	2022	16:33	115	5.48	32.79	5.54	33.12	4	B
64	4849	4226.4	7013.0	2	4	2022	18:52	72	5.65	33.04	5.54	33.09	5	W
128	4837	4214.5	7015.0	2	4	2022	21:47	27	5.22	32.68	5.06	32.69	5	V
65	4798	4216.6	6957.2	3	4	2022	0:30	107	6.14	NaN	6.54	33.39	4	B
129	4724	4204.2	6945.5	3	4	2022	3:28	183	6.10	33.24	6.76	33.43	3	V
130	4659	4202.3	6955.2	3	4	2022	5:55	74	5.42	32.94	5.48	33.00	5	W
131	4827	4124.2	6925.2	3	4	2022	11:49	39	5.72	32.93	5.73	32.94	5	V
132	4655	4131.5	6931.6	3	4	2022	14:04	47	5.61	32.87	5.62	32.89	6	V

**HB2202 Spring Bottom Trawl Survey
March 4 - May 1, 2022**

Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
66	4854	4139.8	6941.6	3	4	2022	17:58	69	5.64	NaN	5.61	33.00	4	B
133	4676	4145.6	6951.4	3	4	2022	20:32	38	5.45	32.69	5.32	32.70	5	V
134	4819	4145.3	6952.2	3	4	2022	23:52	28	5.59	32.68	5.30	32.70	6	V
135	4641	4137.1	6943.5	4	4	2022	2:21	38	5.46	32.72	5.45	32.72	5	W
67	4714	4052.8	6915.8	4	4	2022	8:18	55	6.45	NaN	6.50	33.08	6	B
68	4624	4102.9	6904.6	4	4	2022	10:46	77	7.25	33.32	7.28	33.32	5	W
69	4891	4045.4	6754.6	4	4	2022	22:14	72	6.70	NaN	6.69	33.10	4	B
70	4848	4043.4	6750.2	5	4	2022	0:50	74	6.67	NaN	6.69	33.11	4	B
136	4608	4037.8	6749.5	5	4	2022	3:21	83	6.61	33.11	6.61	33.11	4	W
137	4796	4028.3	6731.5	5	4	2022	6:29	135	6.91	33.00	11.66	34.94	3	V
139	4682	4024.6	6752.1	5	4	2022	11:44	180	6.86	33.02	10.79	35.06	5	V
140	4589	4033.9	6809.7	5	4	2022	14:51	97	6.85	33.09	6.98	33.18	5	V
141	4841	4030.4	6809.8	5	4	2022	17:06	117	7.02	33.13	9.43	35.14	4	V
142	4590	4026.0	6820.0	5	4	2022	20:51	106	7.71	33.17	9.26	34.22	4	V
143	4883	4018.3	6816.8	5	4	2022	23:41	162	7.57	33.11	11.79	35.15	3	W
71	4768	4015.9	6813.2	6	4	2022	1:42	197	7.46	33.09	11.64	35.30	4	B
72	4862	4007.2	6844.0	6	4	2022	5:29	172	6.70	32.52	12.42	35.41	6	B
73	4905	4013.6	6926.6	6	4	2022	10:09	81	7.59	NaN	7.65	33.29	6	B
74	4830	4002.3	6943.0	6	4	2022	12:53	124	8.01	33.22	13.28	35.33	5	B
75	4531	3956.6	6951.3	6	4	2022	16:10	161	9.47	33.72	14.02	35.66	4	W
144	4857	4111.0	7102.8	13	4	2022	18:09	32	7.33	32.44	6.83	32.64	4	V
145	4886	4102.9	7046.3	13	4	2022	20:27	46	7.94	32.52	5.90	32.74	3	V
146	4640	4117.7	7044.5	13	4	2022	23:23	21	8.05	32.40	6.51	32.46	5	V
147	4762	4116.0	7036.8	14	4	2022	1:00	27	7.93	32.39	6.76	32.50	5	V
148	4840	4106.6	7013.3	14	4	2022	3:56	25	7.46	32.69	7.46	32.69	4	W
76	4784	4055.3	7033.7	14	4	2022	6:50	50	7.40	32.80	6.06	32.85	5	B
149	4898	4047.6	7030.9	14	4	2022	8:53	53	7.10	32.86	6.24	32.89	4	V
150	4868	4002.2	7017.4	14	4	2022	14:00	206	9.94	33.70	12.23	35.57	1	V

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Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
151	4751	4008.0	7013.6	14	4	2022	17:31	117	8.36	33.09	13.59	35.42	4	V
152	4749	4033.5	6959.6	14	4	2022	21:36	62	8.08	33.01	7.22	33.10	6	V
153	4564	4029.2	6952.7	14	4	2022	23:40	72	8.72	33.13	7.45	33.14	5	V
77	4824	4037.2	6944.2	15	4	2022	1:46	58	8.72	33.00	7.45	33.12	4	B
78	4596	4038.7	6928.6	15	4	2022	4:16	54	8.33	NaN	7.68	33.15	4	B
154	4532	4031.5	6922.4	15	4	2022	6:12	57	8.30	33.20	7.71	33.21	4	V
155	4847	4027.7	6919.6	15	4	2022	8:54	72	8.21	33.19	7.55	33.16	5	W
79	4591	4029.4	6911.4	15	4	2022	10:09	75	8.32	NaN	7.60	33.15	4	B
80	4550	4026.4	6852.7	15	4	2022	14:05	78	7.87	NaN	7.14	33.07	4	B
81	4850	4020.9	6859.0	15	4	2022	16:11	89	8.20	33.02	7.25	33.22	5	B
82	4533	4002.1	6904.6	15	4	2022	19:06	224	8.33	32.93	10.98	35.38	5	W
156	4894	4006.3	6857.1	15	4	2022	21:37	162	8.30	32.89	11.77	35.29	3	V
157	4835	4011.5	6852.3	15	4	2022	23:41	131	8.39	33.00	10.23	34.45	4	V
158	4783	4032.1	6838.9	16	4	2022	3:20	72	7.79	33.04	7.15	33.05	5	V
159	4679	4037.5	6842.0	16	4	2022	5:15	63	7.51	33.00	7.52	33.00	6	V
83	4566	4038.4	6838.2	16	4	2022	7:51	60	7.61	32.97	7.61	32.98	4	B
84	4797	4043.9	6830.7	16	4	2022	11:37	51	7.70	NaN	7.70	33.01	5	B
85	4567	4042.9	6824.8	16	4	2022	13:28	60	7.47	33.11	7.46	33.11	4	B
86	4736	4049.6	6817.5	16	4	2022	16:23	46	7.54	NaN	7.51	33.11	5	B
87	4605	4101.5	6717.3	16	4	2022	21:39	70	7.39	NaN	7.17	33.11	5	B
88	4846	4049.9	6645.8	17	4	2022	1:21	114	7.31	NaN	13.13	35.64	4	W
160	4791	4050.8	6643.0	17	4	2022	3:02	121	6.87	32.45	13.29	35.64	3	V
161	4654	4052.9	6636.7	17	4	2022	4:54	187	7.02	32.62	10.51	35.19	3	V
162	4785	4055.8	6631.5	17	4	2022	7:11	237	6.89	32.59	9.69	35.25	2	V
89	4649	4113.6	6615.9	17	4	2022	10:41	167	6.98	NaN	12.27	35.26	3	B
90	4680	4118.1	6612.7	17	4	2022	13:41	150	6.95	NaN	11.44	35.25	4	B
91	4664	4121.6	6616.6	17	4	2022	16:00	107	6.91	NaN	10.79	34.86	4	B
163	4884	4126.8	6611.6	17	4	2022	18:07	112	6.94	32.52	9.53	34.52	4	V

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Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
92	4754	4154.5	6612.0	17	4	2022	22:16	84	7.00	NaN	6.99	33.03	7	B
164	4826	4150.7	6559.3	18	4	2022	1:12	93	7.24	33.02	7.13	33.21	5	V
165	4569	4151.7	6554.4	18	4	2022	3:06	110	6.23	32.54	7.59	33.51	3	W
166	4552	4200.4	6551.8	18	4	2022	5:46	195	6.84	32.75	8.33	35.02	3	V
167	4539	4216.4	6547.2	18	4	2022	9:11	210	3.78	31.24	7.69	35.08	5	V
93	4581	4218.6	6557.6	18	4	2022	11:48	237	3.90	NaN	8.53	35.09	35	B
168	4581	4218.8	6559.0	18	4	2022	12:15	241	3.91	31.24	8.64	35.11	3	V
94	4758	4146.2	6810.8	21	4	2022	5:35	64	7.98	NaN	8.00	33.19	4	B
95	4662	4138.9	6747.6	21	4	2022	9:07	35	8.37	NaN	8.38	33.19	4	W
169	4571	4137.6	6746.0	21	4	2022	10:48	36	8.31	33.19	8.32	33.19	4	W
170	4789	4127.1	6752.3	21	4	2022	14:59	39	8.43	33.21	8.38	33.21	4	V
96	4880	4123.5	6736.3	21	4	2022	18:02	40	8.38	33.22	8.35	33.22	5	B
97	4831	4119.3	6739.9	21	4	2022	19:52	32	8.41	33.21	8.39	33.20	6	B
98	4709	4110.3	6711.7	21	4	2022	22:52	61	7.99	NaN	7.54	33.14	5	W
99	4547	4125.7	6658.0	22	4	2022	2:17	66	7.53	NaN	7.51	33.11	5	B
100	4872	4125.0	6656.0	22	4	2022	3:38	68	7.46	NaN	7.45	33.10	4	B
101	4719	4123.8	6630.2	22	4	2022	6:28	90	7.38	NaN	7.36	33.31	4	B
102	4771	4136.4	6635.4	22	4	2022	9:07	79	7.00	NaN	6.98	32.88	5	B
103	4702	4141.2	6631.6	22	4	2022	11:41	73	7.22	NaN	7.21	32.94	5	B
171	4788	4142.9	6621.5	22	4	2022	14:28	85	7.05	32.88	7.01	32.88	5	W
104	4583	4213.2	6616.6	22	4	2022	18:56	208	7.28	NaN	9.46	34.94	8	B
172	4558	4226.7	6611.3	22	4	2022	21:47	240	6.37	32.02	8.76	35.03	3	V
173	4776	4212.6	6651.3	23	4	2022	2:06	213	7.12	32.75	9.57	34.90	4	V
105	4688	4218.2	6657.2	23	4	2022	4:38	293	6.94	32.73	9.64	35.12	91	B
106	4688	4219.0	6658.6	23	4	2022	5:12	295	6.93	32.74	9.07	35.14	1	W
174	4689	4219.5	6706.7	23	4	2022	8:08	299	6.71	32.75	9.11	35.15	3	V
175	4781	4226.7	6724.2	23	4	2022	11:46	323	7.04	32.60	8.84	35.15	2	V
176	4548	4210.1	6716.0	23	4	2022	15:46	168	7.44	33.01	7.95	33.86	4	W

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Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
107	4618	4211.0	6711.4	23	4	2022	17:43	177	7.63	33.12	9.00	34.65	6	B
177	4674	4207.6	6702.9	23	4	2022	20:00	65	8.01	33.25	7.93	33.27	4	V
178	4711	4205.1	6651.0	23	4	2022	21:45	72	7.71	33.23	7.70	33.22	5	V
108	4542	4150.6	6654.6	24	4	2022	0:19	63	7.44	NaN	7.48	33.00	3	B
179	4575	4139.9	6655.3	24	4	2022	2:35	63	7.53	33.04	7.55	33.04	3	V
180	4863	4141.5	6703.9	24	4	2022	4:32	59	7.65	33.07	7.71	33.08	4	V
109	4595	4145.3	6714.0	24	4	2022	6:34	53	7.87	33.13	7.90	33.14	5	B
110	4800	4152.6	6705.0	24	4	2022	9:01	50	7.84	NaN	7.86	33.14	4	B
111	4728	4157.3	6708.2	24	4	2022	10:52	63	8.07	33.23	8.09	33.23	5	W
181	4869	4154.9	6716.8	24	4	2022	13:17	50	8.23	33.27	8.21	33.27	5	V
112	4534	4201.9	6718.2	24	4	2022	16:11	46	7.97	NaN	7.94	33.29	5	B
182	4864	4204.9	6727.4	24	4	2022	18:04	71	7.92	33.30	7.60	33.34	4	V
183	4697	4215.6	6736.4	24	4	2022	20:34	245	7.60	32.87	9.31	35.15	2	V
113	4890	4221.3	6740.0	24	4	2022	23:52	238	7.16	32.68	9.80	35.10	36	B
114	4890	4221.0	6740.7	25	4	2022	0:15	237	7.18	NaN	9.37	35.13	5	V
184	4801	4219.5	6744.9	25	4	2022	2:29	220	7.57	32.99	9.59	35.08	3	V
185	4745	4237.1	6757.6	25	4	2022	6:03	189	6.98	32.65	9.68	34.91	2	V
186	4832	4214.7	6807.1	25	4	2022	10:00	187	7.45	33.11	8.82	34.34	4	V
187	4687	4208.6	6804.9	25	4	2022	12:17	221	7.51	33.20	9.42	35.01	2	W
188	4579	4202.9	6803.6	25	4	2022	14:36	215	7.88	33.31	9.31	34.95	3	V
189	4683	4202.4	6825.7	25	4	2022	17:55	169	8.09	33.28	7.58	33.66	4	V
190	4842	4157.6	6839.4	25	4	2022	20:47	166	8.23	33.31	6.95	33.44	4	V
115	4807	4141.3	6851.2	26	4	2022	0:56	159	7.86	NaN	6.95	33.35	5	B
116	4860	4137.7	6905.5	26	4	2022	3:48	159	7.66	NaN	6.57	33.35	3	B
117	4634	4134.6	6849.0	26	4	2022	6:42	148	8.34	NaN	7.14	33.43	3	W
191	4772	4135.8	6843.6	26	4	2022	8:42	142	8.29	33.31	7.31	33.41	5	W
192	4633	4122.8	6823.5	26	4	2022	12:00	64	8.49	33.10	8.50	33.10	5	V
118	4740	4127.1	6811.1	26	4	2022	14:04	47	8.73	33.15	8.70	33.15	3	B

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Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
119	4651	4125.6	6805.9	26	4	2022	15:45	41	8.71	NaN	8.67	33.13	3	B
120	4543	4104.9	6815.6	26	4	2022	18:58	43	8.78	33.09	8.63	33.09	5	B
121	4675	4118.2	6830.3	26	4	2022	21:37	61	8.61	NaN	8.30	33.13	4	W
193	4828	4107.6	6838.7	27	4	2022	0:05	68	8.44	33.06	8.44	33.06	5	V
194	4806	4116.6	6843.6	27	4	2022	2:34	79	8.18	33.12	8.18	33.12	5	W
195	5178	4111.4	6853.4	27	4	2022	4:49	96	7.77	33.11	7.63	33.17	5	V
196	4611	4214.9	6931.9	4	5	2022	4:34	228	7.43	32.76	7.81	33.78	4	V
197	4610	4219.4	6929.2	4	5	2022	7:03	238	8.17	33.09	8.43	34.09	4	V
198	4609	4208.7	6909.9	4	5	2022	10:07	193	7.84	33.09	7.39	33.64	4	W
122	4619	4216.6	6903.1	4	5	2022	13:09	199	8.07	33.04	7.98	33.85	4	B
123	4718	4226.1	6844.7	4	5	2022	16:32	207	8.21	32.97	8.78	34.25	6	B
199	4843	4239.9	6830.3	4	5	2022	20:18	205	7.97	32.74	9.09	34.42	4	V
124	4777	4231.7	6859.3	4	5	2022	23:33	177	7.92	32.86	7.64	33.67	7	B
200	4885	4245.6	6914.0	5	5	2022	2:52	128	8.12	33.03	7.09	33.35	5	V
201	4820	4248.4	6917.4	5	5	2022	4:44	73	7.72	32.92	7.17	33.27	5	V
202	4681	4256.0	6851.1	5	5	2022	8:18	155	7.14	32.46	6.80	33.32	3	V
125	4629	4308.7	6855.3	5	5	2022	10:50	177	7.40	NaN	6.89	33.37	3	W
126	4670	4309.7	6901.6	5	5	2022	13:41	161	6.91	NaN	6.80	33.38	4	B
203	4560	4312.5	6911.4	5	5	2022	16:06	185	7.40	32.36	6.96	33.45	5	V
204	4701	4323.3	6858.6	5	5	2022	18:32	143	7.98	32.43	6.39	33.18	5	V
205	4562	4327.1	6844.8	5	5	2022	21:58	136	7.83	32.68	7.12	33.22	6	V
127	4757	4340.4	6828.5	6	5	2022	0:33	175	7.52	NaN	8.11	33.72	6	B
206	4851	4329.4	6813.4	6	5	2022	3:44	172	8.01	32.54	9.44	34.39	3	W
128	4899	4315.9	6810.6	6	5	2022	5:55	203	7.77	32.49	9.63	34.49	3	B
129	4625	4309.0	6813.1	6	5	2022	8:13	199	7.57	32.38	8.34	33.94	4	B
207	4584	4301.7	6823.2	6	5	2022	10:49	202	7.47	32.78	8.48	34.02	3	V
208	4822	4252.2	6815.7	6	5	2022	14:20	200	7.71	32.77	8.76	34.21	8	V
209	4747	4300.8	6726.2	6	5	2022	18:47	222	7.69	32.74	9.81	34.96	3	V

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Cast #	Site ID #	Lat (DDMM.M)	Long (DDMM.M)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (° C)	Sfc Salt	Deepest Observed Temp (° C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
210	4606	4251.0	6722.9	6	5	2022	20:43	207	7.37	31.94	9.64	34.91	2	V
130	4858	4313.0	6705.2	7	5	2022	5:23	199	7.87	32.55	9.15	34.50	5	B
131	4582	4319.4	6650.4	7	5	2022	7:55	182	7.06	32.00	9.24	34.35	3	W
211	4652	4337.1	6642.7	7	5	2022	11:40	101	6.03	31.79	7.43	33.23	3	V
212	4844	4339.0	6708.1	7	5	2022	14:25	133	6.81	32.17	8.65	33.95	4	V
213	4786	4327.8	6720.5	7	5	2022	16:57	191	7.22	32.38	9.28	34.34	4	V
214	4877	4334.7	6741.7	7	5	2022	19:45	252	7.49	32.41	9.61	34.52	2	V
215	4667	4329.7	6750.7	7	5	2022	22:10	289	7.68	32.70	9.65	34.52	3	W
216	4838	4338.5	6747.6	8	5	2022	0:40	244	7.17	32.32	9.68	34.62	2	V
132	4692	4354.0	6735.9	8	5	2022	3:37	210	7.15	NaN	9.54	34.51	8	B
133	4698	4354.0	6720.7	8	5	2022	6:27	221	6.60	NaN	9.29	34.38	20	B
134	4698	4353.7	6720.9	8	5	2022	6:53	221	6.61	32.01	9.32	34.39	2	W
135	4612	4401.5	6721.4	8	5	2022	10:00	171	6.90	32.09	9.05	34.21	3	B
217	4833	4356.1	6703.1	8	5	2022	12:47	165	6.83	32.09	8.86	34.13	3	V
218	4540	4403.8	6646.4	8	5	2022	15:29	89	6.30	31.76	6.75	32.75	5	V
219	4737	4415.1	6636.9	8	5	2022	18:10	197	6.49	31.98	8.08	33.64	6	V
136	4699	4410.5	6706.6	8	5	2022	21:38	112	7.17	32.12	8.48	33.90	6	B
220	4601	4414.1	6712.9	8	5	2022	23:38	172	7.14	32.15	8.66	34.00	5	V
221	4593	4409.5	6749.4	9	5	2022	5:23	128	6.51	32.01	7.11	33.02	3	W
137	4695	4404.7	6754.3	9	5	2022	7:47	94	6.27	NaN	6.71	32.69	7	B
222	4677	4359.7	6811.4	9	5	2022	10:32	121	6.83	32.16	7.35	33.18	3	V
223	4821	4354.7	6816.6	9	5	2022	12:38	122	7.08	32.33	7.20	33.11	3	V
224	5253	4352.3	6825.6	9	5	2022	14:47	121	6.90	32.18	6.77	32.83	4	V
225	4760	4355.8	6849.0	9	5	2022	19:23	88	6.91	31.97	6.34	32.04	3	V
226	4631	4350.1	6905.1	9	5	2022	22:24	65	6.89	31.87	6.09	31.93	7	V
138	4671	4346.8	6923.7	10	5	2022	1:24	78	6.96	NaN	5.71	32.26	7	B
139	4630	4322.5	6950.3	10	5	2022	5:12	147	7.54	NaN	5.84	33.09	3	B
140	4554	4316.7	7000.9	10	5	2022	8:22	136	7.33	NaN	5.67	32.96	3	W

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141	4716	4310.6	6955.7	10	5	2022	10:27	169	7.28	NaN	7.29	33.65	4	B
227	4647	4243.0	7042.9	10	5	2022	17:32	25	8.70	30.28	7.87	31.14	8	V
142	4690	4250.3	7044.6	10	5	2022	20:19	34	8.20	NaN	7.32	31.62	6	B
228	4859	4250.0	7038.2	10	5	2022	22:14	79	7.36	31.70	5.58	32.36	5	V
229	4544	4254.5	7030.5	11	5	2022	1:00	97	7.71	31.69	5.30	32.67	6	V
230	4717	4251.7	7012.0	11	5	2022	3:53	58	7.40	32.22	5.61	32.58	4	W
231	4855	4247.8	7016.7	11	5	2022	5:55	59	7.20	32.27	5.75	32.63	5	V
232	4600	4241.0	7001.2	11	5	2022	8:57	121	7.95	33.06	6.53	33.26	4	V
233	4553	4232.6	7004.8	11	5	2022	11:45	124	6.96	32.76	6.34	33.02	6	V

Deployment codes: B=bongo cast; W=water cast; and V=vertical cast

Records in bold are collected with an SBE911+ CTD