

Oceanography Branch CTD Data Report
CTD_REPORT_2015001HB

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DATE: July 31, 2015

Oceanography Branch CTD Data Report

CTD_REPORT_2015001HB

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

HB 15-01
Spring Bottom Trawl Survey
Data Coverage: March 14 – May 7, 2015
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 HB1501 Fall Bottom Trawl Survey aboard the NOAA FSV *Henry B Bigelow*. Data was obtained with two Seabird Electronics SBE Model 19+ profiling CTD (s/n's 4758 & 7037) during bongo double oblique tows and with a SBE Model 9/11+ s/n 0832 at all other stations. Sea water samples were taken for the purpose of correcting salinity values. A SBE43 Dissolved Oxygen sensor was attached to the SBE 9/11+. This is the second Bottom Trawl Survey to regularly deploy the higher resolution SBE 9/11+ and accommodate a Biospherical Instruments Inc. QSP2300 PAR (Photosynthetically Active Radiation) Sensor. A QSR2200 Surface PAR sensor was mounted on the flying bridge for the entire cruise. The PAR data obtained during the vertical profiling casts is included in the archived CTD data; the surface PAR data will be made available on request.

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 in an NODC formatted ASCII file at:

ftp://ftp.nefsc.noaa.gov/./pub/hydro/nodc_files/hb1501.dat

This report may be viewed on the Oceanography Branch website at:

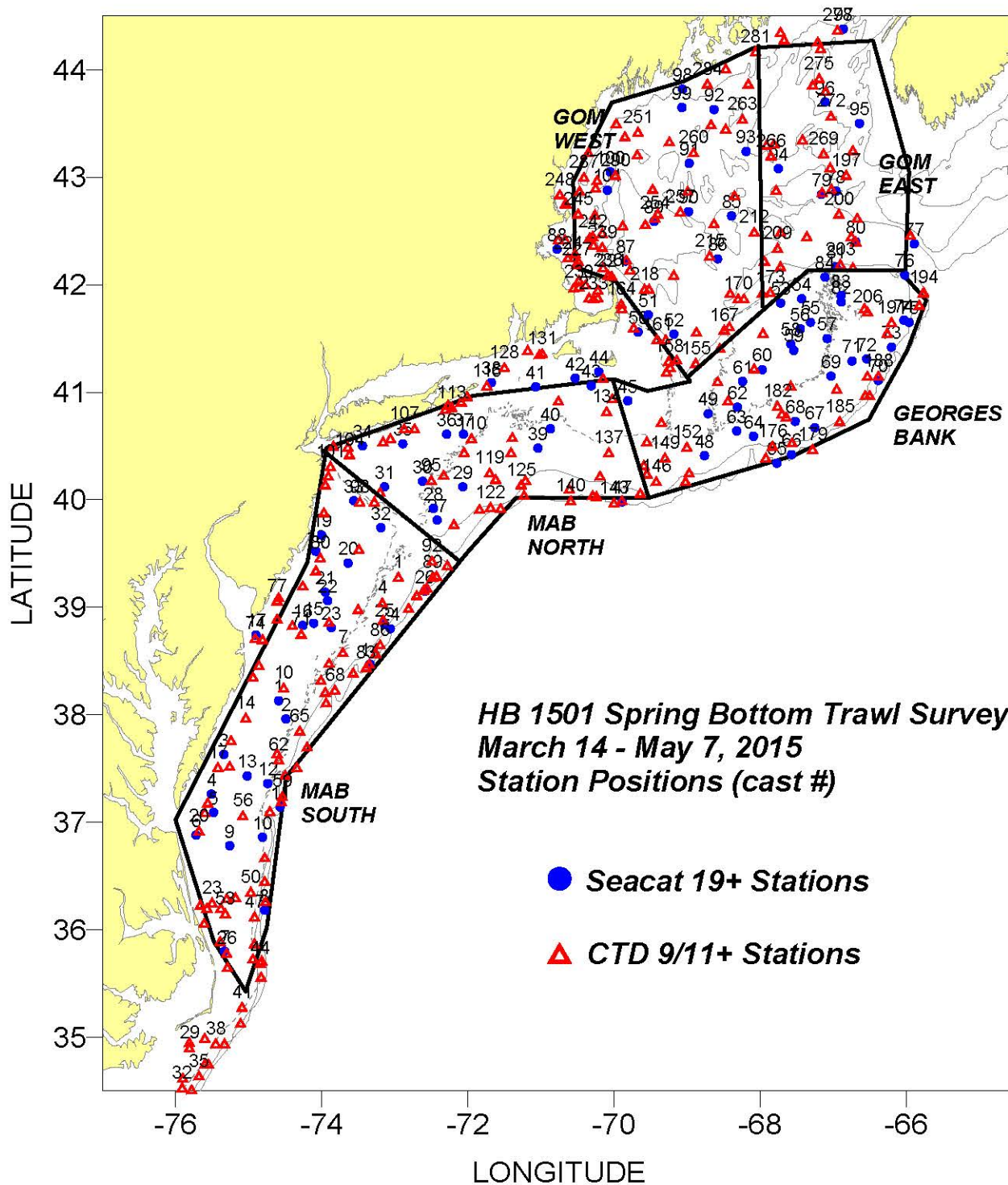
<http://www.nefsc.noaa.gov/HydroAtlas/>

choose: **2015 Cruises**

MAR_TRAWL_HB1501

CTD_REPORT_2015001HB.pdf

Revised: July 31, 2015



**Areal average surface and bottom temperature/salinity and temperature/salinity anomalies for the
HB1501 Spring Bottom Trawl Survey
Mar 14 - May 7, 2015**

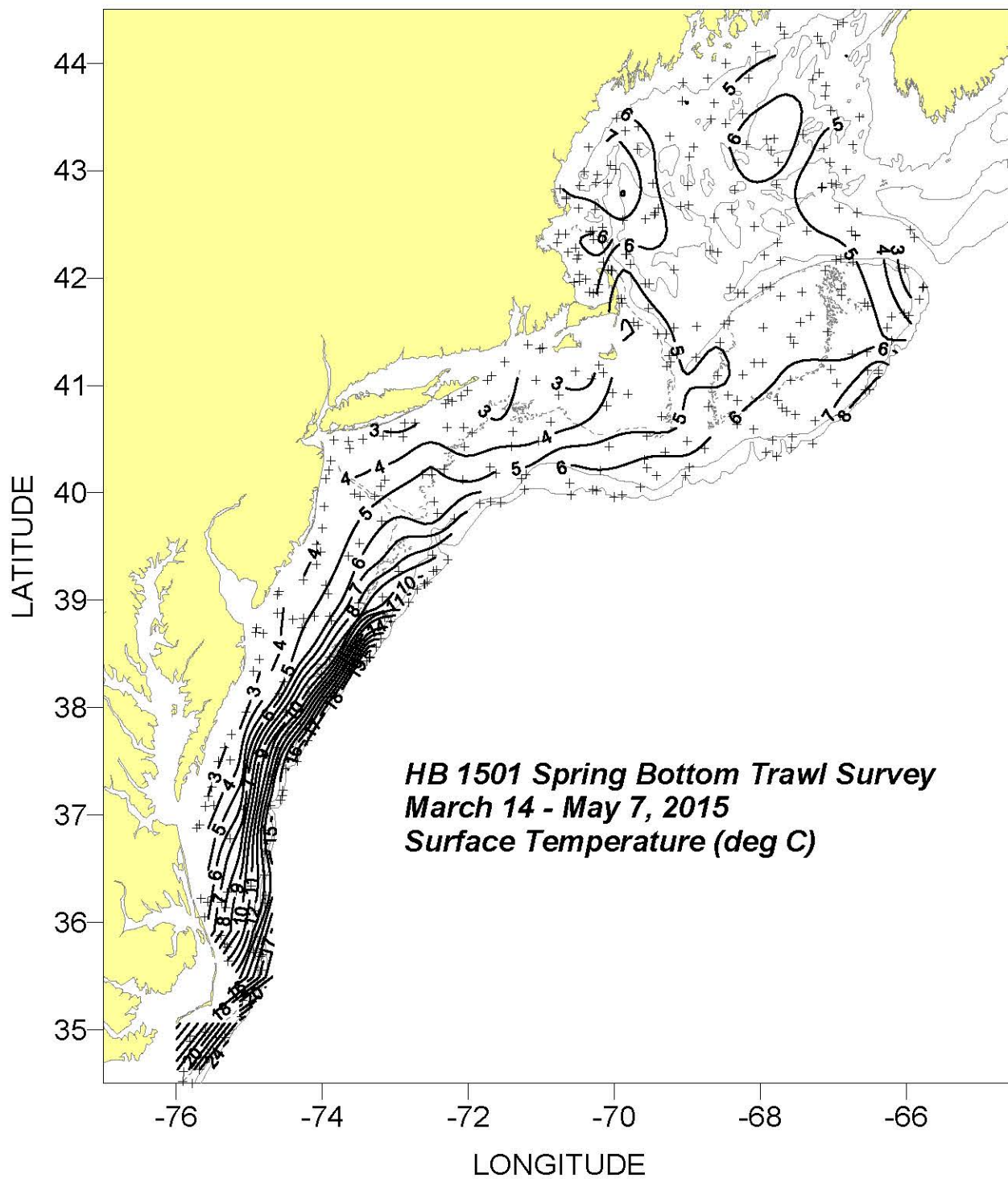
		SURFACE						BOTTOM						
CRUISE	CD	#obs	T/S	Anomaly	SDV1	SDV2	Flag	#obs	T/S	Anomaly	SDV1	SDV2	Flag	Purpose
		Western Gulf of Maine												
hb1501	117	70	5.84	0.08	0.13	0.84	0	68	5.09	0.00	0.12	0.68	0	10
hb1501	117	70	32.66	0.20	0.06	0.49	0	68	33.30	-0.04	0.04	0.30	0	10
		Eastern Gulf of Maine												
hb1501	116	36	5.19	-0.22	0.15	0.62	0	33	7.49	0.38	0.20	0.80	0	10
hb1501	116	36	32.17	-0.30	0.08	1.24	0	33	34.15	0.04	0.05	0.37	0	10
		Georges Bank												
hb1501	105	57	5.80	0.27	0.19	1.11	0	57	6.55	0.50	0.19	0.98	0	10
hb1501	105	57	33.07	0.06	0.06	0.45	0	57	33.63	0.23	0.06	0.32	0	10
		MAB North												
hb1501	93	52	4.61	-0.38	0.23	1.24	0	52	5.80	-0.34	0.26	1.64	0	10
hb1501	93	52	33.17	0.32	0.10	0.41	0	52	33.68	0.07	0.09	0.43	0	10
		MAB South												
hb1501	82	96	8.28	1.75	0.19	4.05	0	91	7.07	0.16	0.23	1.71	0	10
hb1501	82	96	34.18	1.01	0.11	0.75	0	91	34.38	0.57	0.08	0.36	0	10

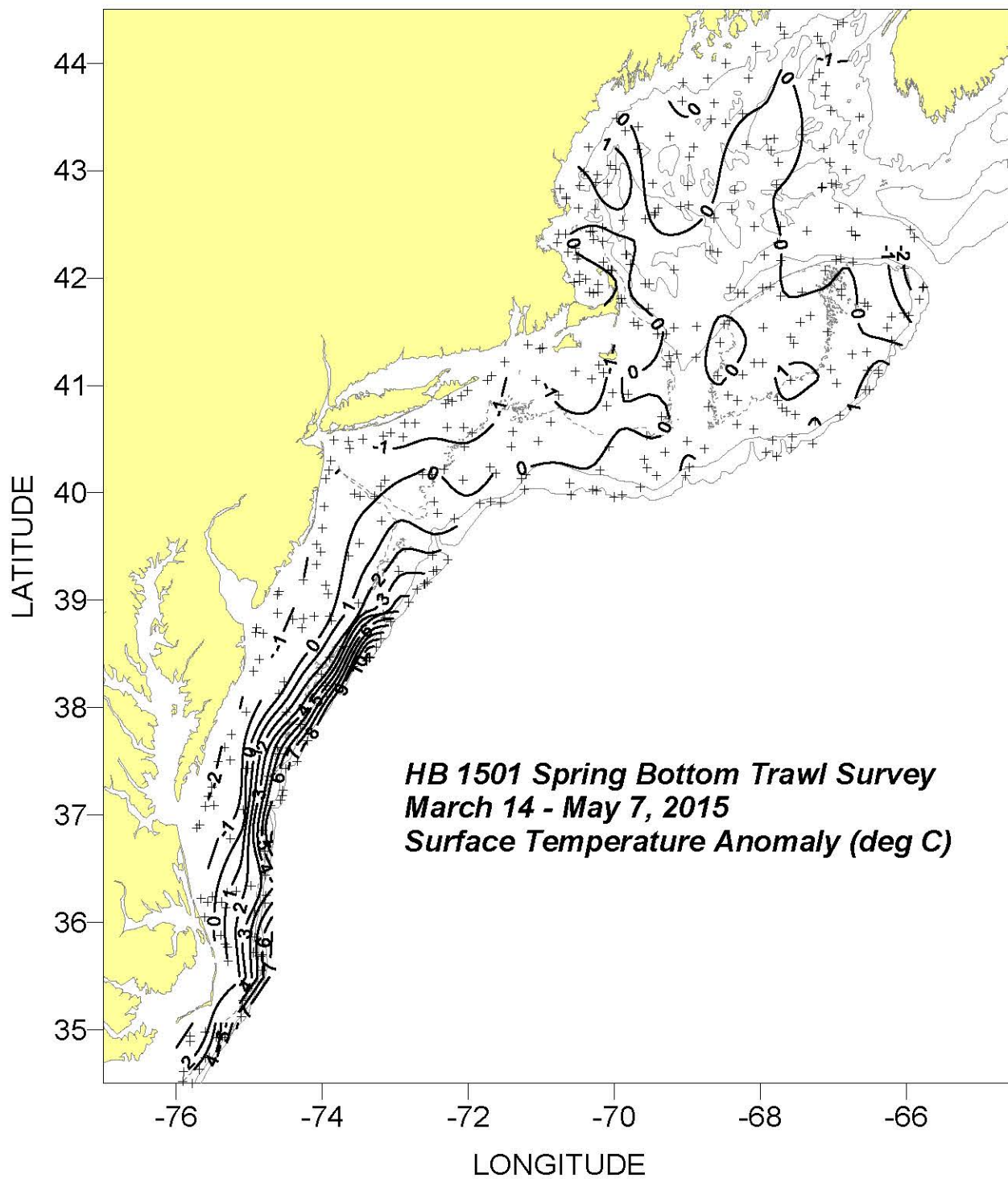
"CRUISE", the code name for a cruise: "CD", the calendar mid-date of all the stations within a region for a cruise:

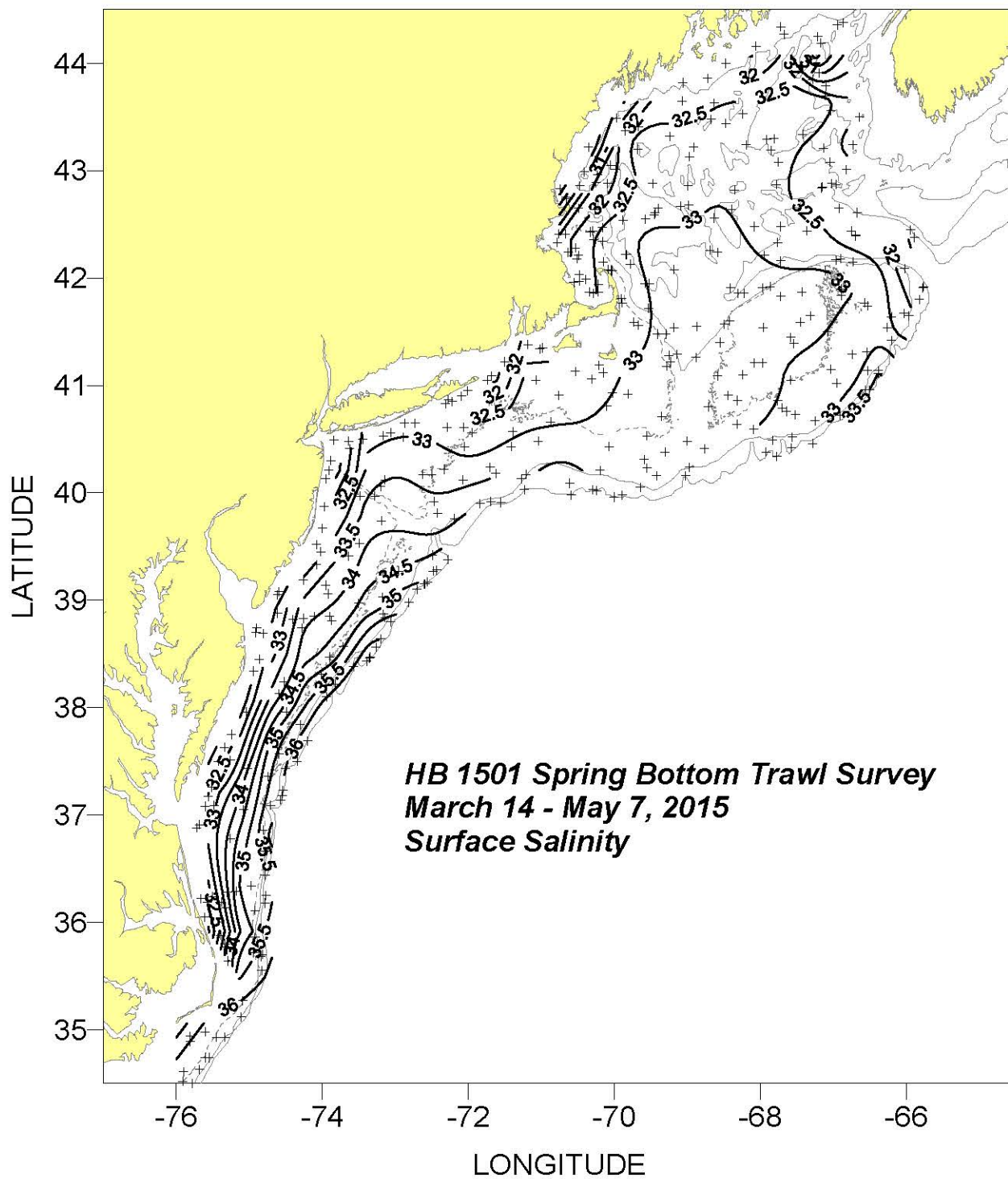
"#obs", the number of observations include in each average: "T/S", the areal average temp/salt: "Anomaly", the areal average temp/salt anomaly:

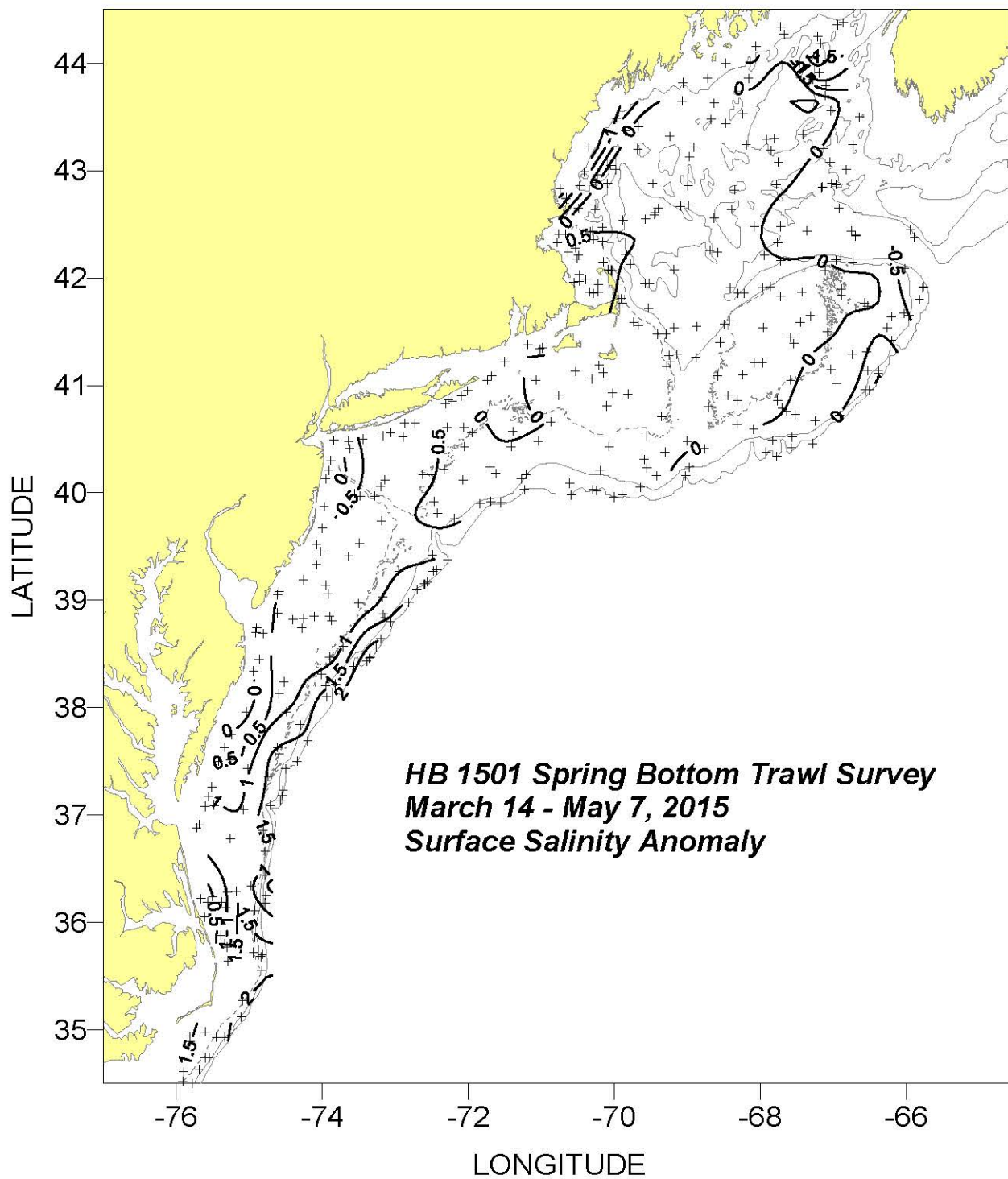
"SDV1", the standard deviation associated with the average temp/salt anomaly: "SDV2", the standard deviation of the individual anomalies from which the average anomaly was derived
"Flag", a value of "1" indicates that a true areal average could not be calculated due to poor station coverage. The areal averages listed were derived from a simple average of the observations within the region.

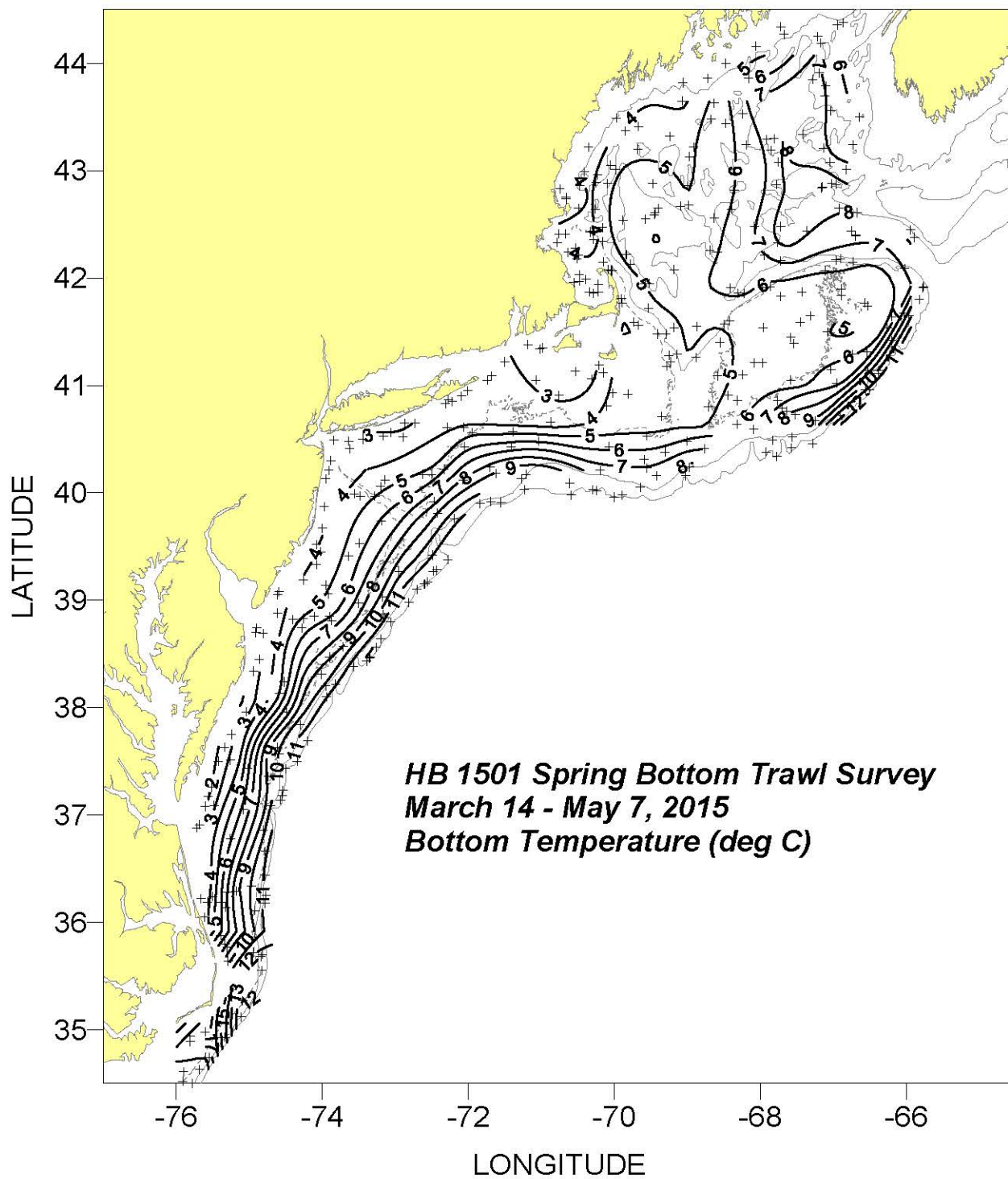
"Purpose", 2 digit code assigned by DMS to identify a unique NEFSC program survey.

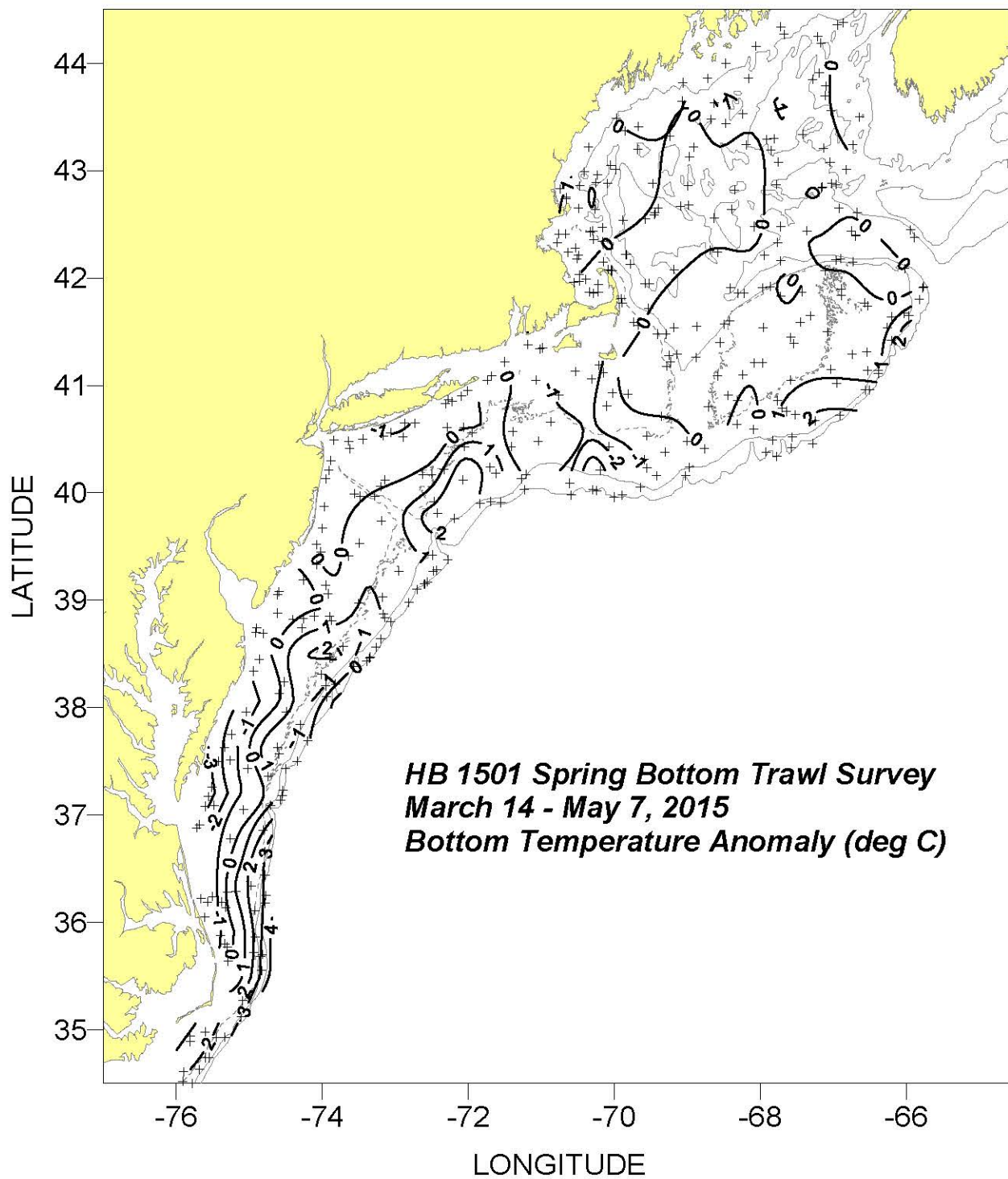


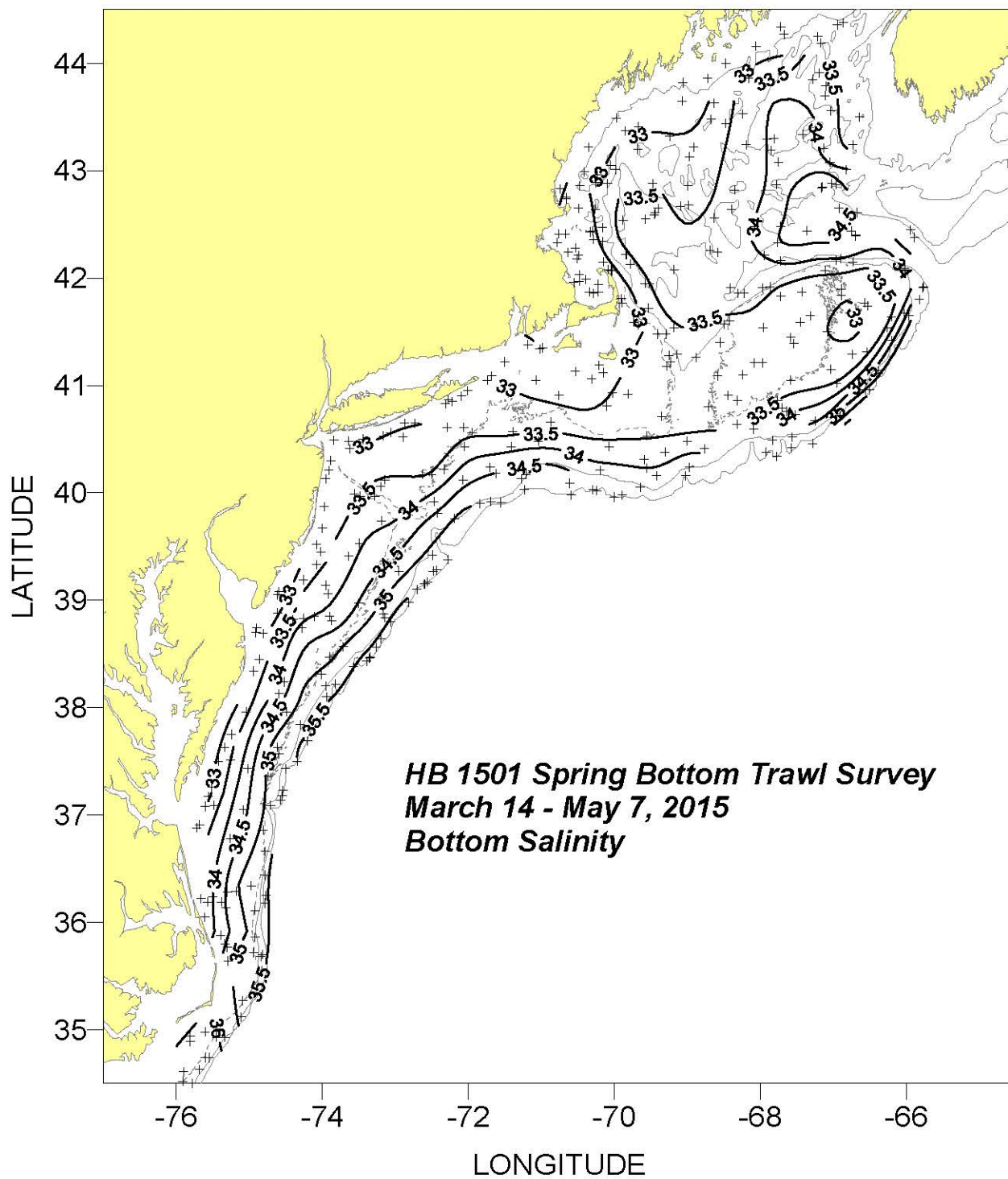


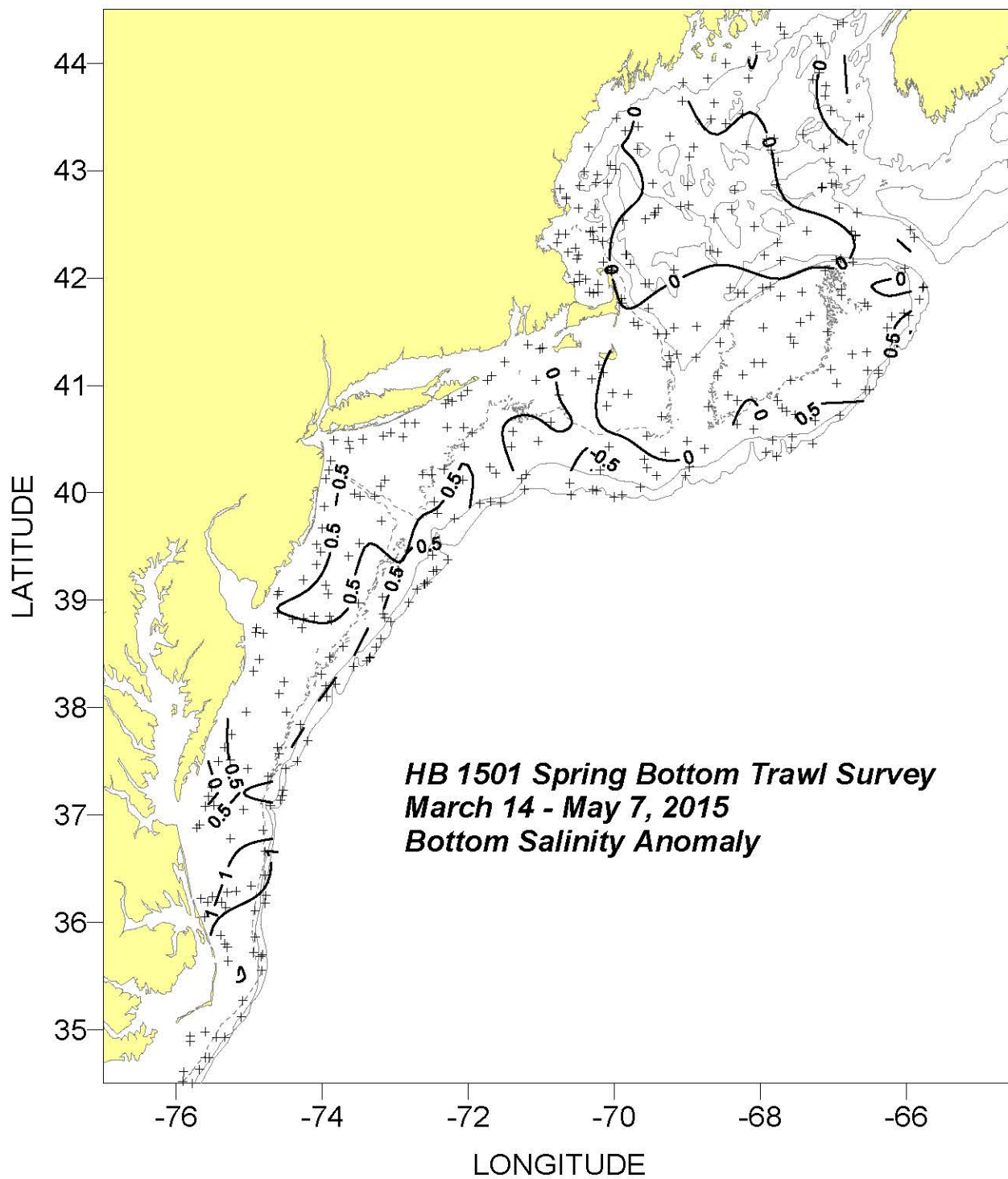












HB1501 Spring Bottom Trawl Survey
March 14 - May 7, 2015

Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
1	7570	3916.3	7256.8	14	3	2015	6:01	71	8.38	34.42	9.56	34.77	3	V
2	7646	3906.2	7242.1	14	3	2015	8:40	273	13.49	35.87	11.30	35.47	5	W
3	7645	3859.1	7248.8	14	3	2015	10:48	257	13.89	35.92	12.40	35.67	2	V
4	7573	3902.1	7310.5	14	3	2015	14:09	72	9.80	34.93	9.24	34.91	4	V
5	7572	3858.1	7330.1	14	3	2015	16:30	51	7.65	34.36	7.23	34.47	3	V
6	7571	3852.2	7309.3	14	3	2015	22:46	80	9.92	35.06	10.49	35.35	3	V
7	7631	3833.9	7342.8	15	3	2015	2:59	61	9.62	35.03	8.75	34.89	1	W
8	7634	3828.2	7354.1	15	3	2015	4:55	58	7.21	34.42	8.90	34.97	2	V
9	7632	3818.4	7400.8	15	3	2015	7:06	69	8.51	34.73	11.15	35.48	2	V
10	7560	3814.6	7431.4	15	3	2015	10:22	43	6.16	34.45	5.28	34.46	3	V
11	7653	3826.8	7451.7	15	3	2015	13:16	17	1.92	31.78	2.65	33.32	3	V
13	7652	3820.7	7456.3	15	3	2015	15:30	21	1.94	31.67	2.10	33.03	4	V
1	7558	3807.8	7435.6	15	3	2015	18:12	39	5.01	34.20	4.43	34.36	6	B
2	7563	3757.7	7429.4	15	3	2015	20:01	53	7.90	34.67	6.48	34.54	4	B
14	7656	3757.8	7502.1	15	3	2015	23:26	22	2.77	32.01	2.41	33.34	3	V
15	7654	3744.8	7514.4	16	3	2015	1:36	24	2.59	31.86	2.33	33.21	4	V
3	7655	3737.7	7520.3	16	3	2015	3:01	21	2.85	32.31	2.20	33.08	7	B
16	7622	3730.7	7515.6	16	3	2015	4:40	25	3.68	32.75	3.27	33.79	6	V
17	7657	3729.9	7525.3	16	3	2015	6:14	23	3.26	32.33	2.00	32.90	5	W
4	7659	3715.3	7530.4	16	3	2015	8:13	23	2.67	32.37	1.80	32.86	6	B
18	7658	3710.4	7533.9	16	3	2015	9:38	25	3.14	32.60	1.91	32.94	5	V
5	7623	3705.6	7528.6	16	3	2015	11:38	31	3.53	32.88	2.39	33.44	4	B
19	7391	3705.0	7535.8	16	3	2015	13:14	21	3.25	32.71	2.18	32.96	3	V
20	7392	3654.3	7540.6	16	3	2015	15:29	19	3.76	33.13	2.75	33.32	3	V
6	7390	3653.1	7543.3	16	3	2015	16:28	20	4.34	32.49	2.54	33.21	7	B
21	7661	3613.2	7539.9	17	3	2015	20:37	22	5.71	30.43	3.10	33.59	4	W
22	7663	3611.4	7534.2	17	3	2015	22:04	27	6.25	31.74	3.51	33.81	3	V

HB1501 Spring Bottom Trawl Survey
March 14 - May 7, 2015

Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
23	7662	3614.5	7530.2	17	3	2015	23:11	28	5.29	33.29	3.47	33.87	4	V
24	7660	3603.2	7536.6	18	3	2015	1:05	24	5.62	31.16	3.25	33.63	3	W
25	7664	3552.7	7523.5	18	3	2015	3:19	24	7.22	31.44	4.83	33.95	2	V
7	7668	3547.9	7520.0	18	3	2015	4:36	27	6.81	33.04	5.55	34.18	4	B
26	7667	3545.9	7518.1	18	3	2015	6:05	33	6.13	33.87	5.73	34.29	3	V
27	7665	3538.2	7517.6	18	3	2015	8:11	27	7.02	34.32	6.72	34.30	5	V
28	7737	3459.0	7535.9	18	3	2015	14:39	33	18.91	36.43	18.91	36.43	6	V
29	8517	3453.5	7548.7	18	3	2015	16:27	26	16.98	35.97	17.00	35.98	4	V
30	7733	3456.2	7548.5	18	3	2015	17:37	25	17.10	36.07	17.08	36.06	4	V
31	7735	3436.7	7554.0	18	3	2015	20:04	43	20.57	36.42	19.22	36.43	4	V
32	7738	3431.4	7554.3	18	3	2015	21:37	60	19.50	36.41	18.74	36.40	2	V
33	7677	3430.1	7547.0	19	3	2015	0:03	147	23.85	36.39	17.90	36.38	5	W
34	7681	3428.7	7544.9	19	3	2015	2:25	240	23.51	36.42	16.69	36.34	5	V
35	7678	3438.1	7540.7	19	3	2015	6:29	123	23.76	36.39	18.62	36.40	1	V
36	7739	3444.5	7535.9	19	3	2015	8:35	95	23.71	36.39	19.44	36.40	3	V
37	7676	3444.5	7532.7	19	3	2015	10:12	175	23.48	36.41	18.18	36.37	1	V
38	7740	3455.9	7526.9	19	3	2015	12:58	73	21.46	36.42	19.07	36.41	3	V
39	7679	3455.6	7519.5	19	3	2015	14:49	228	23.23	36.44	16.25	36.18	1	V
40	7680	3507.1	7506.4	19	3	2015	18:15	296	23.37	36.43	10.01	35.26	5	V
41	8901	3516.5	7505.4	19	3	2015	20:53	30	19.91	36.29	18.48	36.09	3	V
42	7550	3533.2	7450.0	20	3	2015	0:20	72	16.23	35.78	11.78	35.42	3	W
43	7551	3541.9	7449.2	20	3	2015	2:36	272	17.95	36.07	11.43	35.52	15	V
44	7548	3541.1	7450.4	20	3	2015	4:46	107	17.47	35.90	10.71	35.35	3	V
45	7615	3543.2	7456.5	20	3	2015	7:12	58	15.64	35.62	11.96	35.52	2	V
46	7616	3551.4	7455.5	20	3	2015	8:54	75	17.02	35.90	11.74	35.50	2	V
47	7617	3606.3	7455.3	20	3	2015	11:33	71	11.70	34.82	10.39	35.23	2	V

HB1501 Spring Bottom Trawl Survey
March 14 - May 7, 2015

Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
48	7552	3615.1	7445.9	20	3	2015	13:50	410	13.12	35.08	9.14	35.24	19	V
8	7553	3611.1	7447.0	20	3	2015	16:48	266	12.23	34.75	11.11	35.42	81	B
49	7549	3626.5	7446.9	20	3	2015	19:41	118	12.85	35.17	11.16	35.43	6	V
50	7614	3620.2	7458.0	20	3	2015	22:12	41	11.27	35.33	10.56	35.34	2	V
51	7612	3617.4	7510.7	21	3	2015	0:17	38	8.73	34.96	8.78	35.00	3	W
52	7613	3617.0	7517.8	21	3	2015	1:44	29	6.19	34.41	6.85	34.66	4	V
53	7611	3608.4	7519.1	21	3	2015	3:20	33	4.54	33.80	5.61	34.29	4	V
54	7610	3611.6	7523.0	21	3	2015	4:36	32	4.54	33.86	4.68	33.99	4	V
9	7621	3647.0	7515.3	24	3	2015	1:42	32	5.26	34.05	5.28	34.05	4	B
55	7627	3639.7	7446.6	24	3	2015	4:56	65	14.28	35.87	10.14	35.23	1	V
10	7618	3651.7	7448.6	24	3	2015	6:55	53	13.98	35.88	10.85	35.35	8	B
56	7620	3702.9	7504.9	24	3	2015	9:33	39	6.68	34.52	6.69	34.52	2	V
57	7556	3705.3	7442.6	24	3	2015	12:15	282	15.81	36.12	9.50	35.29	1	V
11	7629	3708.2	7434.2	24	3	2015	15:02	134	18.11	36.36	12.50	35.70	6	B
58	7628	3710.8	7433.1	24	3	2015	17:02	139	18.33	36.38	12.51	35.70	8	V
59	7630	3713.6	7432.4	24	3	2015	18:16	138	18.51	36.42	12.13	35.64	3	V
60	7555	3725.6	7430.0	24	3	2015	20:34	173	17.55	36.33	10.90	35.39	6	V
12	7624	3721.8	7444.3	24	3	2015	23:17	56	7.55	34.68	7.62	34.69	2	B
13	7619	3726.0	7500.9	25	3	2015	1:30	35	4.43	33.87	4.93	34.12	5	B
61	7625	3738.1	7436.5	25	3	2015	4:41	55	13.36	35.83	11.17	35.46	2	V
62	7626	3734.0	7435.1	25	3	2015	6:25	60	14.75	36.03	10.11	35.21	1	W
63	7554	3729.9	7420.7	25	3	2015	8:30	236	17.79	36.36	11.52	35.51	2	V
64	7641	3741.6	7412.3	25	3	2015	11:35	204	18.06	36.36	11.93	35.60	3	V
65	7635	3750.7	7417.7	25	3	2015	13:51	73	15.37	36.11	11.31	35.49	4	V
66	7636	3806.0	7356.4	25	3	2015	16:42	118	12.93	35.75	10.76	35.35	3	V
67	7633	3812.1	7357.3	25	3	2015	18:11	79	12.84	35.77	11.76	35.56	2	V
68	7638	3812.9	7349.1	25	3	2015	19:45	116	20.12	36.43	11.98	35.60	3	V

HB1501 Spring Bottom Trawl Survey
March 14 - May 7, 2015

Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
69	7639	3822.6	7334.4	25	3	2015	23:03	370	21.10	36.44	10.50	35.38	58	V
14	7640	3828.1	7320.4	26	3	2015	2:02	249	21.21	36.44	11.70	35.54	33	B
70	7569	3851.2	7354.2	26	3	2015	7:33	43	5.36	34.01	5.24	34.02	3	W
15	7561	3851.1	7406.8	26	3	2015	9:15	46	5.44	34.03	5.19	34.01	9	B
16	7559	3849.9	7415.6	26	3	2015	10:47	45	4.86	33.93	5.18	34.04	8	B
71	7557	3844.4	7416.9	26	3	2015	12:39	39	5.47	34.08	5.39	34.13	4	V
72	7562	3849.4	7423.8	26	3	2015	14:27	35	4.22	33.66	4.34	33.76	4	V
73	7649	3841.4	7448.7	26	3	2015	17:37	17	4.07	32.19	3.58	32.83	4	V
74	7650	3841.8	7454.6	26	3	2015	19:09	26	4.11	31.13	3.48	32.90	6	V
17	7648	3844.7	7454.1	26	3	2015	20:30	17	4.40	31.06	3.52	32.70	3	B
75	7389	3852.8	7436.5	26	3	2015	23:14	24	3.73	32.78	3.71	32.81	7	V
76	7387	3904.7	7435.3	27	3	2015	1:50	20	3.42	32.56	3.42	32.57	2	W
77	7388	3903.2	7436.8	27	3	2015	2:52	20	3.40	32.49	3.30	32.66	2	V
78	7385	3911.6	7415.7	27	3	2015	5:46	23	3.73	33.14	3.73	33.17	4	V
79	7383	3919.6	7404.6	27	3	2015	9:16	25	4.15	33.22	4.32	33.45	2	V
80	7384	3926.9	7401.4	27	3	2015	10:51	27	4.40	32.77	4.17	33.22	4	V
18	7386	3931.4	7404.8	27	3	2015	13:03	22	4.46	32.14	4.14	33.08	6	B
19	7381	3940.1	7400.2	27	3	2015	14:47	23	4.08	32.33	4.02	33.21	6	B
81	7382	3952.1	7358.2	27	3	2015	16:45	21	3.85	31.81	3.55	32.90	3	V
82	7567	3932.0	7329.3	27	3	2015	20:01	36	5.45	33.90	5.35	33.94	3	V
20	7565	3924.4	7338.3	27	3	2015	21:40	36	5.31	33.86	5.32	33.90	5	B
21	7568	3908.4	7357.1	28	3	2015	0:17	45	4.65	33.67	4.39	33.76	4	B
22	7566	3903.3	7355.3	28	3	2015	1:54	41	4.84	33.81	4.90	33.86	3	B
23	7564	3848.5	7352.4	28	3	2015	4:03	46	6.46	34.22	6.51	34.24	6	B
83	7640	3825.6	7323.2	28	3	2015	7:45	260	20.15	36.36	12.17	35.65	2	W
84	7642	3827.5	7320.8	28	3	2015	9:26	253	19.93	36.40	12.59	35.70	1	V
85	7643	3833.3	7315.8	28	3	2015	14:24	142	18.95	36.41	11.65	35.51	3	V

HB1501 Spring Bottom Trawl Survey
March 14 - May 7, 2015

Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
86	7644	3838.5	7312.1	28	3	2015	16:18	145	16.53	36.11	12.16	35.64	3	V
24	7647	3848.2	7303.5	28	3	2015	19:46	119	10.08	34.89	12.30	35.64	1	B
25	7574	3850.1	7308.1	28	3	2015	20:34	88	8.54	34.41	9.44	34.79	3	B
26	7701	3908.8	7235.3	29	3	2015	0:32	300	11.14	35.26	12.66	35.73	96	B
87	7701	3908.9	7235.8	29	3	2015	1:01	273	11.35	35.32	12.29	35.67	1	W
88	7702	3910.2	7233.9	29	3	2015	2:40	266	11.71	35.44	12.07	35.63	3	W
89	7700	3916.2	7229.1	29	3	2015	4:52	145	9.52	34.78	11.42	35.35	4	V
90	7697	3916.9	7226.0	29	3	2015	6:44	153	9.88	34.89	11.57	35.39	4	V
91	7703	3922.7	7216.6	29	3	2015	9:14	202	10.12	34.95	12.39	35.67	1	V
92	7698	3925.5	7229.4	29	3	2015	11:48	123	8.92	34.59	11.37	35.29	3	V
93	7696	3945.6	7211.2	29	3	2015	15:24	98	7.02	33.99	10.64	34.98	4	V
27	7694	3948.8	7225.2	29	3	2015	17:47	78	4.98	33.43	9.60	34.74	4	B
28	7695	3955.4	7228.1	29	3	2015	19:17	66	4.76	33.34	5.85	33.62	3	B
29	7689	4007.4	7204.2	29	3	2015	22:09	70	4.52	33.33	8.51	34.46	4	B
94	7692	4013.0	7219.7	30	3	2015	0:10	62	4.92	33.37	5.03	33.46	4	V
95	7690	4010.4	7230.2	30	3	2015	1:43	62	5.28	33.47	5.35	33.52	4	V
30	7693	4010.3	7237.4	30	3	2015	3:06	58	5.23	33.50	5.19	33.50	3	B
31	7684	4007.4	7308.5	30	3	2015	6:19	44	4.63	33.55	4.60	33.54	5	B
96	7683	4003.8	7311.8	30	3	2015	7:38	43	4.65	33.57	4.66	33.57	3	W
97	7691	3957.9	7316.7	30	3	2015	9:05	68	4.54	33.57	4.54	33.58	4	V
32	7682	3944.6	7311.6	30	3	2015	12:36	44	6.11	33.89	6.11	33.89	6	B
98	7685	3958.4	7328.6	30	3	2015	14:40	41	4.19	33.51	5.27	33.81	4	V
33	7687	3959.5	7333.4	30	3	2015	15:52	37	4.53	33.59	4.55	33.60	6	B
99	7380	4008.0	7356.8	30	3	2015	18:47	22	3.85	30.48	3.39	33.07	4	V
100	7379	4012.6	7354.6	30	3	2015	20:01	23	3.87	30.41	3.49	33.05	4	V
101	7378	4018.1	7352.5	30	3	2015	21:42	26	3.72	31.37	3.43	33.22	5	V
102	7377	4029.3	7350.7	30	3	2015	23:57	20	3.36	32.81	3.18	33.21	4	V

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Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
103	7375	4028.5	7338.7	31	3	2015	1:36	23	3.61	32.75	3.56	32.85	3	V
104	7376	4024.4	7337.2	31	3	2015	2:39	23	3.68	32.33	3.39	33.03	4	W
34	7374	4030.1	7326.7	31	3	2015	4:20	20	3.38	32.81	3.16	32.82	5	B
105	7373	4031.9	7309.8	31	3	2015	6:21	27	2.55	32.83	2.58	32.90	3	V
106	7372	4033.3	7303.9	31	3	2015	7:34	28	2.86	32.91	2.93	32.98	2	V
35	7688	4031.3	7253.5	31	3	2015	9:04	39	3.13	33.03	3.35	33.14	4	B
107	7371	4039.0	7252.1	31	3	2015	10:47	29	2.70	32.80	2.72	32.94	2	V
108	7686	4039.0	7243.9	31	3	2015	13:24	34	2.75	32.81	2.89	32.97	4	V
36	7704	4036.6	7217.5	31	3	2015	15:59	52	3.60	32.84	4.19	33.25	4	B
109	7710	4026.1	7203.2	31	3	2015	18:16	64	3.69	32.78	4.79	33.38	4	V
110	7709	4033.5	7157.3	31	3	2015	19:54	59	3.55	32.74	4.12	33.27	3	V
37	7708	4036.6	7203.5	31	3	2015	21:35	54	3.44	32.64	4.05	33.25	4	B
111	7370	4050.0	7218.4	1	4	2015	0:02	29	2.85	32.03	2.74	32.71	4	V
112	7369	4052.0	7216.1	1	4	2015	1:01	26	2.83	32.06	2.68	32.56	3	W
113	7706	4050.9	7213.5	1	4	2015	2:01	34	2.86	32.00	2.91	32.86	4	V
114	7368	4053.9	7205.5	1	4	2015	3:21	30	2.90	32.05	2.87	32.73	5	V
115	7575	4057.2	7200.5	1	4	2015	4:31	26	2.98	32.02	3.03	32.64	3	V
116	7577	4102.9	7144.4	1	4	2015	6:38	25	2.61	31.57	3.27	32.49	3	V
38	7576	4105.1	7140.8	1	4	2015	8:21	35	2.36	31.07	3.89	33.07	4	B
117	7716	4034.3	7123.4	1	4	2015	13:35	67	2.86	32.91	3.44	33.18	1	V
118	7713	4025.7	7124.3	1	4	2015	14:41	73	4.12	33.24	5.65	33.64	4	V
119	7711	4014.7	7142.1	1	4	2015	17:15	82	4.34	33.24	8.21	34.28	2	V
120	7715	4011.0	7137.3	1	4	2015	18:47	85	5.18	33.45	9.30	34.58	1	V
121	7699	3954.0	7150.6	1	4	2015	21:37	137	6.92	33.85	11.41	35.27	1	V
122	7720	3955.3	7141.7	1	4	2015	23:14	136	6.65	33.77	12.44	35.67	2	V
123	7722	3954.4	7132.9	2	4	2015	0:59	258	11.08	35.26	10.68	35.41	1	V
124	7723	4002.1	7113.8	2	4	2015	4:20	207	6.59	33.83	11.74	35.57	5	W

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Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
125	7719	4007.7	7116.4	2	4	2015	6:46	111	5.98	33.60	9.22	34.51	2	V
126	7718	4010.5	7112.6	2	4	2015	8:05	121	5.41	33.48	10.34	34.85	3	V
39	7712	4028.5	7102.1	2	4	2015	11:35	82	3.53	33.11	5.61	33.63	4	B
40	7714	4039.5	7052.4	2	4	2015	15:04	68	3.31	32.94	3.09	33.15	4	B
127	7707	4054.4	7045.5	2	4	2015	16:56	52	3.10	32.86	2.44	32.89	3	V
41	7705	4102.9	7104.4	2	4	2015	19:36	34	3.60	32.89	3.17	32.89	3	B
128	7670	4113.2	7129.8	3	4	2015	2:08	37	3.01	32.17	2.98	32.76	5	V
129	7671	4122.7	7110.8	3	4	2015	5:01	25	2.50	32.21	1.84	32.53	2	W
130	7669	4120.4	7101.3	7	4	2015	23:43	26	2.89	32.45	2.68	32.50	3	W
131	7674	4120.9	7058.8	8	4	2015	1:14	28	2.84	32.49	2.77	32.49	2	V
42	7727	4107.9	7031.8	8	4	2015	4:52	38	2.42	32.44	1.98	32.46	5	B
43	7725	4103.4	7018.7	8	4	2015	7:04	36	2.87	32.66	2.80	32.65	6	B
44	7673	4111.1	7012.9	8	4	2015	8:51	25	4.49	32.83	4.42	32.85	6	B
132	7675	4107.2	7008.9	8	4	2015	12:33	23	4.59	32.86	4.59	32.86	4	W
133	7672	4055.6	7001.4	8	4	2015	14:32	26	4.28	33.00	4.27	33.00	4	V
134	7724	4048.7	7006.2	8	4	2015	16:22	33	4.49	33.08	4.47	33.08	3	V
45	7728	4055.3	6948.9	8	4	2015	20:41	34	4.97	33.19	4.98	33.19	1	B
135	7726	4042.7	6920.8	9	4	2015	1:33	40	4.89	33.36	4.89	33.36	2	W
136	7403	4032.1	6933.0	9	4	2015	4:33	64	4.24	33.25	4.22	33.24	2	V
137	7404	4025.7	7004.4	9	4	2015	8:20	74	5.01	33.28	4.67	33.41	2	V
138	7407	4012.7	7011.7	9	4	2015	13:32	103	5.57	33.34	5.85	33.70	4	V
139	8761	4005.5	7036.9	9	4	2015	16:43	127	7.59	33.84	10.75	35.02	3	V
140	7721	3959.1	7035.4	9	4	2015	18:57	276	9.23	34.44	9.46	35.29	1	V
141	7412	4001.9	7017.5	9	4	2015	22:04	213	7.47	33.77	12.22	35.62	1	V
142	7414	4001.2	7014.6	10	4	2015	0:30	227	7.21	33.72	12.07	35.54	1	W
143	7413	3957.3	6959.8	10	4	2015	4:11	210	7.49	33.80	12.46	35.68	1	V
47	7408	3958.8	6953.6	10	4	2015	5:55	148	7.61	33.82	7.61	33.83	137	B

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Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
144	7408	3959.0	6953.6	10	4	2015	6:07	151	7.55	33.81	11.75	35.43	3	V
145	7411	4002.8	6938.1	10	4	2015	8:30	114	7.29	33.71	9.43	34.61	3	V
146	7402	4009.7	6925.4	10	4	2015	10:43	90	6.96	33.56	9.03	34.48	2	V
147	7405	4013.7	6932.8	10	4	2015	12:15	82	6.44	33.41	4.43	33.37	1	V
148	7399	4018.8	6935.6	10	4	2015	13:40	74	5.69	33.35	4.56	33.33	2	V
149	7400	4022.7	6917.7	10	4	2015	16:12	79	5.55	33.37	5.00	33.37	4	V
150	7409	4009.5	6901.2	10	4	2015	19:15	140	6.41	33.34	11.14	35.22	2	V
151	7410	4014.5	6858.4	10	4	2015	21:38	114	6.51	33.35	6.54	33.75	2	V
48	7419	4024.8	6845.6	11	4	2015	0:05	84	6.27	33.32	5.18	33.46	5	B
152	7401	4028.5	6900.2	11	4	2015	2:24	77	5.44	33.39	5.21	33.39	3	W
49	7420	4048.2	6842.8	11	4	2015	5:47	66	4.82	33.32	4.79	33.33	1	B
153	8590	4054.3	6826.3	11	4	2015	10:28	53	5.13	33.33	5.16	33.33	4	V
154	7463	4105.2	6835.0	11	4	2015	12:40	56	4.79	33.29	4.78	33.29	4	V
155	7476	4115.6	6853.0	11	4	2015	15:30	101	5.12	33.42	4.81	33.43	4	V
156	7490	4110.9	6916.6	11	4	2015	19:38	56	5.03	33.38	5.00	33.38	4	V
157	7477	4113.1	6913.8	11	4	2015	21:54	76	4.98	33.37	4.95	33.37	3	V
158	7475	4117.0	6914.8	11	4	2015	23:50	88	5.20	33.33	4.93	33.39	2	V
159	7473	4117.4	6908.6	12	4	2015	1:19	105	5.31	33.38	5.10	33.45	3	W
160	8833	4129.0	6917.4	12	4	2015	4:02	96	4.97	33.29	4.62	33.31	3	V
161	7488	4128.8	6924.5	12	4	2015	6:00	54	4.30	33.05	4.15	33.16	3	V
50	7489	4133.7	6940.4	12	4	2015	9:45	34	3.60	32.90	3.61	32.91	6	B
162	7487	4135.7	6943.7	12	4	2015	13:28	32	3.60	32.78	3.57	32.92	5	V
163	7580	4146.5	6953.2	12	4	2015	16:00	23	3.57	32.66	3.55	32.67	2	V
164	7578	4148.5	6953.9	12	4	2015	16:57	25	3.84	32.68	3.45	32.68	2	W
51	7481	4143.2	6931.7	12	4	2015	20:08	150	5.23	33.23	4.52	33.30	4	B
52	7482	4132.2	6910.6	12	4	2015	23:49	163	5.52	33.35	4.98	33.43	5	B
165	7480	4133.2	6852.0	13	4	2015	2:23	152	5.79	33.50	5.26	33.52	2	V

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#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
166	7478	4123.8	6833.0	13	4	2015	5:11	83	5.06	33.34	4.90	33.33	3	V
167	7474	4134.2	6829.2	13	4	2015	7:05	91	4.98	33.33	4.82	33.31	4	V
168	7460	4136.0	6825.1	13	4	2015	9:01	51	5.11	33.26	5.08	33.27	2	V
169	7486	4154.4	6824.5	13	4	2015	11:49	206	5.34	33.21	6.81	33.99	1	V
170	7512	4151.4	6818.1	13	4	2015	13:29	216	5.51	33.22	6.75	33.96	1	V
171	7469	4151.8	6813.5	13	4	2015	15:05	190	5.61	33.20	6.25	33.78	1	V
172	7465	4154.4	6758.4	13	4	2015	17:10	96	5.74	33.25	5.10	33.45	3	V
173	7466	4155.4	6751.8	13	4	2015	18:27	69	5.72	33.25	5.00	33.33	7	V
53	7462	4150.0	6743.2	13	4	2015	20:32	38	5.42	33.30	5.39	33.29	2	B
54	7459	4152.2	6725.8	13	4	2015	23:03	72	5.24	33.27	5.23	33.26	5	B
55	7451	4139.0	6718.4	14	4	2015	1:49	49	5.16	33.16	5.17	33.16	1	B
56	7456	4135.5	6727.2	14	4	2015	5:07	44	5.22	33.23	5.24	33.25	5	B
57	7445	4130.2	6705.0	14	4	2015	8:24	58	5.13	33.06	5.14	33.06	1	B
58	7458	4126.8	6734.5	14	4	2015	12:02	41	5.35	33.13	5.33	33.14	3	B
59	7450	4123.3	6732.6	14	4	2015	15:05	41	5.39	33.12	5.36	33.13	7	B
174	8763	4132.3	6757.9	14	4	2015	18:23	37	5.50	33.21	5.48	33.22	6	W
175	7453	4112.8	6805.0	14	4	2015	22:56	47	5.36	33.21	5.37	33.21	3	V
60	7454	4112.3	6758.0	15	4	2015	0:53	50	5.36	33.20	5.35	33.20	2	B
61	7455	4106.2	6814.6	15	4	2015	3:20	44	5.26	33.28	5.28	33.28	3	B
62	7457	4051.8	6818.7	15	4	2015	6:20	43	5.73	33.20	5.73	33.29	4	B
63	7422	4038.2	6819.3	15	4	2015	8:58	78	6.65	33.08	5.49	33.32	3	B
64	7421	4035.7	6805.3	15	4	2015	11:38	93	6.55	33.00	6.72	33.68	3	B
176	7428	4029.3	6749.9	15	4	2015	14:22	111	7.75	33.22	10.48	34.80	3	V
177	7430	4022.9	6755.0	15	4	2015	16:56	201	7.63	33.13	11.77	35.52	2	W
65	7431	4020.3	6746.3	15	4	2015	19:37	216	9.19	33.79	11.85	35.56	14	B
66	7426	4025.0	6734.1	15	4	2015	22:15	163	8.13	33.45	11.85	35.49	5	B
178	7427	4030.9	6733.9	16	4	2015	0:31	131	6.80	32.95	11.09	35.20	2	V

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#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
179	7429	4027.3	6716.9	16	4	2015	2:55	311	7.73	33.55	7.90	35.15	1	W
67	7415	4040.2	6714.8	16	4	2015	5:55	99	6.13	32.72	9.54	34.41	7	B
68	7416	4043.9	6731.0	16	4	2015	8:09	87	6.45	32.65	8.60	34.10	4	B
180	7424	4045.7	6738.5	16	4	2015	9:41	78	6.59	32.77	6.15	33.44	3	V
181	7423	4047.3	6741.8	16	4	2015	10:44	71	6.34	32.96	5.86	33.36	3	V
182	7417	4051.8	6745.7	16	4	2015	12:45	66	5.88	33.14	5.48	33.14	3	V
183	7418	4102.9	6734.9	16	4	2015	15:06	62	6.54	32.87	5.36	33.02	3	V
69	7435	4109.1	6701.8	16	4	2015	18:15	66	7.05	32.71	5.27	32.97	4	B
184	7443	4101.4	6656.9	16	4	2015	19:47	71	6.58	32.64	5.57	33.11	2	V
185	7425	4043.1	6654.8	16	4	2015	22:19	156	7.60	33.20	13.25	35.77	1	V
186	7743	4057.6	6633.4	17	4	2015	1:17	113	8.40	33.64	13.23	35.67	3	W
187	7446	4057.3	6629.9	17	4	2015	3:38	235	13.44	35.47	13.08	35.74	1	V
70	7447	4106.7	6622.5	17	4	2015	6:21	183	6.73	33.10	10.29	34.84	9	B
188	7741	4108.4	6623.0	17	4	2015	9:08	121	4.05	31.90	8.85	34.41	3	V
189	7439	4108.4	6631.8	17	4	2015	10:34	94	5.26	32.42	5.69	33.33	3	V
71	7438	4117.5	6644.7	17	4	2015	12:29	78	5.51	32.60	5.06	32.94	3	B
72	7441	4118.4	6632.6	17	4	2015	14:22	91	4.97	32.32	5.63	33.26	5	B
73	7742	4125.3	6612.3	17	4	2015	16:37	120	5.29	32.64	9.41	34.69	7	B
190	7444	4132.1	6615.8	17	4	2015	18:42	90	5.28	33.00	5.21	33.12	3	V
191	7436	4138.7	6611.9	17	4	2015	20:20	96	5.54	32.88	5.22	33.15	4	V
74	7434	4140.5	6601.6	17	4	2015	22:05	95	5.05	32.74	5.48	33.33	7	B
75	7433	4138.8	6557.7	18	4	2015	0:51	103	3.34	31.98	12.22	35.49	1	B
192	7744	4147.9	6549.3	18	4	2015	4:34	128	2.68	31.71	7.03	33.86	3	W
193	7449	4154.8	6546.1	18	4	2015	6:52	188	1.68	31.37	9.70	34.94	1	V
194	7448	4155.5	6545.3	18	4	2015	10:10	213	2.13	31.49	7.57	35.05	3	V
76	7470	4205.1	6601.1	18	4	2015	12:18	171	2.15	31.61	6.38	33.72	6	B
77	7510	4222.5	6553.3	18	4	2015	15:20	195	1.77	31.40	8.39	34.99	4	B

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#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
195	7511	4227.2	6556.2	18	4	2015	17:23	173	2.53	31.43	8.31	34.70	1	V
196	7518	4236.6	6640.4	18	4	2015	22:07	182	5.40	32.47	8.52	34.66	1	V
197	7524	4300.7	6649.0	19	4	2015	1:41	154	3.56	31.90	7.80	34.22	1	W
78	7542	4252.4	6657.8	19	4	2015	4:33	204	4.07	32.13	8.57	34.69	5	B
198	7537	4252.9	6701.1	19	4	2015	6:54	216	3.76	32.03	8.71	34.75	2	V
79	7536	4250.3	6709.7	19	4	2015	9:25	231	3.90	32.13	8.73	34.85	27	B
199	7536	4250.8	6709.2	19	4	2015	9:54	238	3.92	32.14	8.75	34.86	1	W
200	7514	4239.1	6655.0	19	4	2015	13:54	239	4.76	32.50	8.69	34.80	1	V
201	7520	4226.6	6644.9	19	4	2015	16:33	337	4.68	32.21	7.90	35.02	1	V
80	7519	4223.9	6641.4	19	4	2015	19:39	338	5.51	32.23	8.91	34.92	134	B
202	7519	4223.6	6641.6	19	4	2015	20:09	336	4.98	32.18	7.98	35.02	1	W
81	7467	4210.0	6657.4	19	4	2015	23:12	103	5.09	32.51	5.58	33.51	7	B
203	7472	4210.8	6653.8	20	4	2015	0:46	180	5.23	32.54	5.63	33.51	1	W
204	7468	4209.0	6643.7	20	4	2015	2:33	109	5.54	33.28	5.52	33.31	2	V
205	7440	4146.3	6634.1	20	4	2015	7:17	74	5.28	32.95	5.29	32.95	4	V
206	7442	4144.7	6631.5	20	4	2015	8:33	75	5.28	32.97	5.30	32.97	3	V
82	7437	4150.3	6653.1	20	4	2015	10:57	66	5.39	33.07	5.39	33.06	4	B
83	7432	4154.0	6653.1	20	4	2015	12:48	67	5.42	33.08	5.42	33.09	6	B
84	7461	4204.4	6706.8	20	4	2015	15:12	55	5.50	33.10	5.46	33.11	5	B
207	7521	4226.2	6721.7	20	4	2015	18:54	332	5.28	32.63	8.62	35.09	1	V
208	7516	4228.9	6743.1	20	4	2015	22:09	198	5.07	32.66	8.38	34.59	6	V
209	7513	4219.5	6745.3	21	4	2015	0:52	223	4.91	32.59	8.36	34.53	1	W
210	7471	4209.7	6743.0	21	4	2015	6:16	197	5.21	32.95	7.39	34.20	2	V
211	7517	4212.9	6756.2	21	4	2015	9:18	236	4.85	32.88	8.68	34.77	2	V
212	7515	4228.8	6804.7	21	4	2015	13:01	177	5.75	32.94	6.09	33.67	1	V
85	7509	4238.1	6823.2	21	4	2015	16:15	200	5.50	32.88	6.02	33.69	7	B
213	7538	4249.2	6820.8	21	4	2015	20:09	217	5.51	33.01	5.96	33.66	1	V

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Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
214	7506	4233.3	6837.9	21	4	2015	23:17	198	5.69	33.07	6.04	33.69	4	V
86	7483	4214.7	6834.5	22	4	2015	2:08	181	5.77	33.26	5.86	33.65	5	B
215	7484	4215.5	6841.1	22	4	2015	4:13	202	6.02	33.33	5.67	33.63	1	W
216	7479	4205.0	6910.6	22	4	2015	8:33	179	6.08	33.38	5.59	33.62	3	V
217	7508	4157.1	6931.1	22	4	2015	11:48	211	5.50	32.93	5.49	33.61	2	V
218	7485	4156.8	6934.9	22	4	2015	13:17	197	5.15	32.97	5.55	33.61	2	V
219	7497	4207.5	6946.8	22	4	2015	16:10	170	5.32	32.91	5.12	33.43	1	V
87	7504	4213.3	6950.7	22	4	2015	18:13	222	5.24	32.96	5.30	33.49	19	B
220	7504	4213.1	6949.7	22	4	2015	18:44	225	5.24	32.94	5.69	33.62	3	W
221	7394	4204.0	7001.7	22	4	2015	22:16	38	4.80	32.73	4.53	32.73	4	V
222	7396	4224.8	7045.3	27	4	2015	22:00	48	6.13	31.82	3.49	32.78	6	W
223	7730	4224.8	7040.4	28	4	2015	0:11	69	6.93	30.45	3.68	32.95	5	V
88	7588	4219.8	7046.7	28	4	2015	2:54	34	6.30	31.96	3.98	32.60	5	B
224	7589	4214.7	7037.5	28	4	2015	5:17	32	6.26	32.06	3.81	32.67	3	V
225	7495	4217.0	7032.0	28	4	2015	7:10	71	6.25	32.24	3.43	32.90	5	V
226	8707	4212.5	7029.7	28	4	2015	9:03	62	5.93	32.40	3.45	32.90	3	V
227	7729	4210.9	7030.5	28	4	2015	10:40	55	5.80	32.33	3.57	32.91	5	V
228	7393	4201.9	7029.0	28	4	2015	13:21	42	6.01	32.30	3.79	32.69	3	W
229	7581	4157.8	7032.9	28	4	2015	15:13	24	6.27	32.25	6.26	32.25	4	V
230	7584	4158.1	7028.6	28	4	2015	17:00	38	5.84	32.39	4.70	32.51	2	V
231	7395	4159.3	7023.5	28	4	2015	18:26	47	5.99	32.49	3.36	32.82	4	V
232	7586	4152.1	7020.3	28	4	2015	20:21	31	6.24	32.40	5.89	32.41	6	V
233	7583	4151.3	7016.5	28	4	2015	21:50	28	6.19	32.40	5.88	32.44	6	V
234	7582	4152.2	7013.1	28	4	2015	22:55	29	6.21	32.44	5.79	32.49	7	V
235	7585	4156.6	7013.0	29	4	2015	0:19	35	6.98	32.53	4.33	32.67	5	V
236	7579	4204.5	7004.5	29	4	2015	3:10	30	6.49	32.57	4.59	32.71	6	V
237	7394	4204.1	7002.1	29	4	2015	4:40	37	6.61	32.57	4.29	32.73	2	W

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Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
238	8860	4208.8	7008.9	29	4	2015	6:04	48	5.45	32.63	3.56	32.82	6	V
239	7492	4220.7	7009.8	29	4	2015	8:43	76	5.65	32.86	3.91	33.01	4	V
240	7491	4221.8	7016.8	29	4	2015	10:27	41	5.78	32.43	3.68	32.83	1	V
241	7493	4225.6	7019.7	29	4	2015	13:10	57	5.84	32.63	3.61	32.84	6	V
242	7496	4226.4	7017.1	29	4	2015	16:05	66	5.63	32.78	3.68	32.93	4	V
243	8722	4228.3	7009.6	29	4	2015	17:42	91	5.84	32.85	3.92	33.05	3	V
244	8613	4238.3	7015.3	29	4	2015	20:24	77	6.65	32.76	3.99	33.08	4	V
245	7731	4238.9	7029.7	29	4	2015	22:51	48	6.53	30.90	4.85	32.78	2	V
246	7398	4244.3	7039.9	30	4	2015	1:39	41	7.42	29.53	4.50	32.41	6	V
247	7397	4245.2	7039.9	30	4	2015	3:03	47	7.56	27.07	4.26	32.53	5	V
248	7587	4250.0	7044.4	30	4	2015	4:31	37	6.75	29.81	4.46	32.44	2	W
249	7545	4251.5	7028.1	30	4	2015	6:27	120	6.05	31.82	3.74	33.07	4	V
250	7600	4322.0	6950.8	30	4	2015	16:30	150	6.03	32.68	4.17	33.02	1	V
251	7597	4324.9	6940.2	30	4	2015	18:23	147	5.55	32.70	3.98	32.89	3	V
252	7590	4312.0	6940.7	30	4	2015	20:32	55	6.21	32.71	4.06	32.89	4	V
253	7595	4252.6	6928.3	1	5	2015	0:26	165	6.19	32.81	5.55	33.49	2	W
89	7502	4235.7	6927.0	1	5	2015	3:43	232	6.23	32.92	5.80	33.66	29	B
254	7502	4236.3	6926.6	1	5	2015	4:12	233	6.22	32.92	5.95	33.69	2	W
255	7503	4233.0	6934.3	1	5	2015	6:09	271	6.75	33.06	6.25	33.76	1	V
256	7505	4239.2	6924.2	1	5	2015	8:23	235	5.82	32.78	6.02	33.71	2	V
257	7593	4240.3	6905.3	1	5	2015	11:30	170	5.28	32.71	5.68	33.52	3	V
90	7594	4240.6	6859.1	1	5	2015	12:59	166	5.24	32.72	5.53	33.48	6	B
258	7596	4251.5	6859.3	1	5	2015	15:51	147	5.43	32.71	4.51	33.01	1	V
91	7591	4307.6	6858.2	1	5	2015	19:50	159	5.80	32.71	4.88	33.27	2	B
259	7604	4319.1	6914.2	1	5	2015	23:47	172	5.94	32.78	4.98	33.34	2	V
260	7592	4313.0	6854.9	2	5	2015	3:04	161	5.48	32.72	4.74	33.13	2	W
261	7598	4328.5	6840.1	2	5	2015	6:46	143	5.38	32.56	3.88	32.87	5	V

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Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
92	7601	4337.6	6838.0	2	5	2015	9:09	155	5.13	32.56	5.11	33.11	1	B
262	7602	4326.5	6828.1	2	5	2015	12:20	179	5.47	32.65	7.23	33.82	5	V
263	7603	4331.8	6814.6	2	5	2015	14:30	176	5.92	32.54	7.25	33.84	1	V
93	7541	4314.7	6811.1	2	5	2015	17:02	204	6.79	32.87	5.90	33.62	6	B
264	7534	4317.7	6754.3	2	5	2015	19:36	229	6.20	32.77	8.91	34.52	1	V
265	7544	4317.8	6748.4	2	5	2015	21:34	242	7.12	32.69	9.00	34.55	1	V
266	7533	4311.1	6751.2	2	5	2015	23:18	218	6.59	32.81	7.19	33.94	1	V
267	7539	4252.1	6746.9	3	5	2015	2:22	214	5.65	32.58	7.61	34.17	2	V
94	7543	4304.8	6745.0	3	5	2015	5:07	182	6.12	32.82	6.56	33.70	16	B
268	7540	4320.4	6725.2	3	5	2015	11:03	194	5.88	32.68	7.34	33.93	3	W
269	7535	4312.3	6707.8	3	5	2015	14:18	185	4.48	32.10	7.21	33.94	2	V
270	8787	4304.5	6702.2	3	5	2015	17:01	181	5.21	31.74	8.12	34.43	1	V
271	7528	4314.1	6643.9	3	5	2015	19:22	117	4.51	31.95	5.55	33.11	3	V
95	7522	4329.9	6638.7	3	5	2015	21:41	112	4.97	32.05	4.99	32.82	5	B
272	7527	4333.5	6701.8	4	5	2015	0:17	204	5.83	32.57	7.82	34.07	1	W
96	7523	4341.7	6706.5	4	5	2015	2:03	141	5.53	32.50	6.48	33.57	3	B
273	8768	4347.6	6706.1	4	5	2015	3:49	176	5.86	32.65	7.34	33.90	4	V
274	7526	4350.9	6716.8	4	5	2015	5:54	187	5.99	32.69	8.25	34.22	1	V
275	7525	4354.7	6711.3	4	5	2015	7:30	141	5.75	25.22	7.46	33.93	1	V
276	7531	4411.6	6710.0	4	5	2015	10:17	132	4.38	32.00	6.40	33.51	2	V
277	7529	4414.9	6712.8	4	5	2015	12:09	193	4.82	31.87	7.34	33.89	2	V
278	7530	4421.5	6656.5	4	5	2015	14:53	124	4.62	31.95	4.76	32.74	3	V
97	7532	4422.7	6651.6	4	5	2015	16:49	121	4.87	31.95	4.68	32.66	3	B
279	8533	4416.0	6740.4	4	5	2015	20:54	102	4.52	32.08	4.00	32.27	5	V
280	7607	4420.3	6743.2	4	5	2015	23:17	69	4.08	31.38	3.98	32.25	3	V
281	7609	4409.3	6803.8	5	5	2015	2:48	96	4.76	31.11	4.03	32.46	3	V
282	8720	4351.9	6809.8	5	5	2015	6:49	177	5.06	32.32	6.23	33.47	1	W

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Cast	Sta	Lat	Long	Day	Mo	Year	Time	Btm	Sfc	Sfc	Deepest Observed	Deepest Observed	Meters from	Method of
#	#	(deg N)	(deg W)				(GMT)	Depth (m)	Temp (deg C)	Salt	Temp (deg C)	Salt	Bottom	Deployment
283	8541	4400.2	6828.3	5	5	2015	12:24	84	3.65	31.53	4.06	32.37	3	V
284	8724	4351.3	6843.0	5	5	2015	15:04	85	4.17	31.66	3.93	32.42	2	V
98	7605	4349.3	6903.9	5	5	2015	19:27	79	5.76	32.06	4.09	32.30	3	B
99	7599	4339.0	6904.1	5	5	2015	22:11	106	6.30	32.30	3.94	32.56	4	B
285	8899	4329.7	6958.1	6	5	2015	4:42	109	5.99	30.53	3.51	32.66	2	W
286	7546	4313.0	7020.8	6	5	2015	9:12	81	7.68	29.37	3.57	32.69	5	V
287	8848	4259.7	7024.5	6	5	2015	12:47	107	8.37	29.86	3.45	32.72	4	V
288	7498	4257.7	7013.7	6	5	2015	14:36	164	6.87	31.13	3.97	33.14	4	V
289	7501	4253.4	7015.1	6	5	2015	16:29	177	8.12	30.92	3.83	33.03	4	V
100	7494	4303.1	7002.8	6	5	2015	18:34	61	9.06	32.24	3.58	32.82	8	B
290	7500	4300.6	6958.8	6	5	2015	19:54	185	8.72	31.77	6.38	33.76	6	V
101	7499	4252.7	7005.1	6	5	2015	21:55	112	8.91	31.24	3.71	32.86	5	B
291	7507	4232.6	6952.6	7	5	2015	1:21	195	7.57	32.74	5.98	33.70	3	W

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

Casts in bold are from SBE9/11+ s/n 0832