Oceanography Branch CTD Data Report

CTD_REPORT_2008001S1

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

S1 08-01
Scallop Survey
Data Coverage: June 22 – August 5, 2008
Georges Bank, Mid Atlantic Bight

This report presents a summary of surface and bottom temperature and salinity data collected during the Northeast Fisheries Science Center's 2008 Scallop Survey aboard the UNOLS R/V *Hugh R. Sharp*. All data was obtained with a Seabird Electronics SBE Model 911plus.

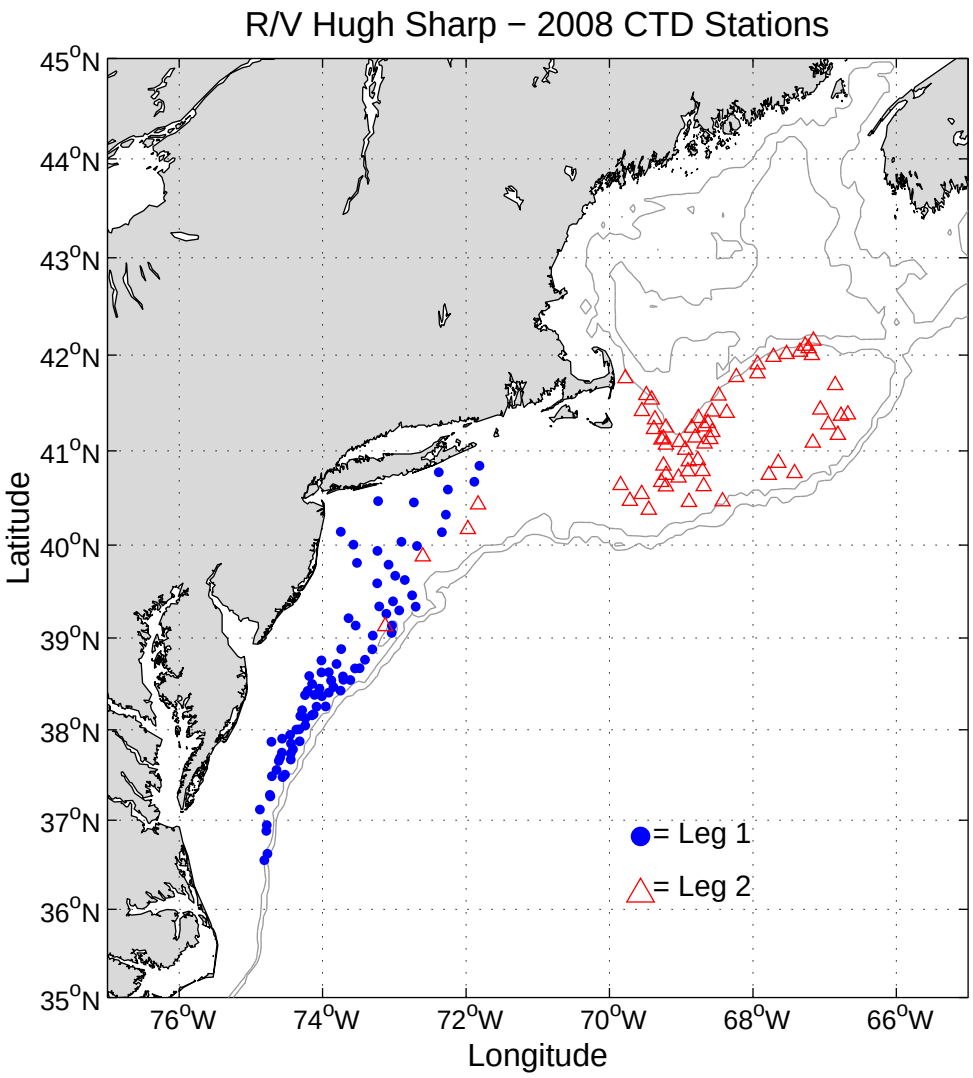
Data presented here have been audited, however, corrections and/or updates may be applied at a later time. The most recent and complete station data can be found in an NODC formatted ASCII file at:
ftp://ftp.nefsc.noaa.gov/pub/hydro/s10801.dat

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

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

choose: **2008 Cruises**
JUN_SCALLOP_S10801
CTD_REPORT_2008001S1.pdf

Revised: July 20, 2009

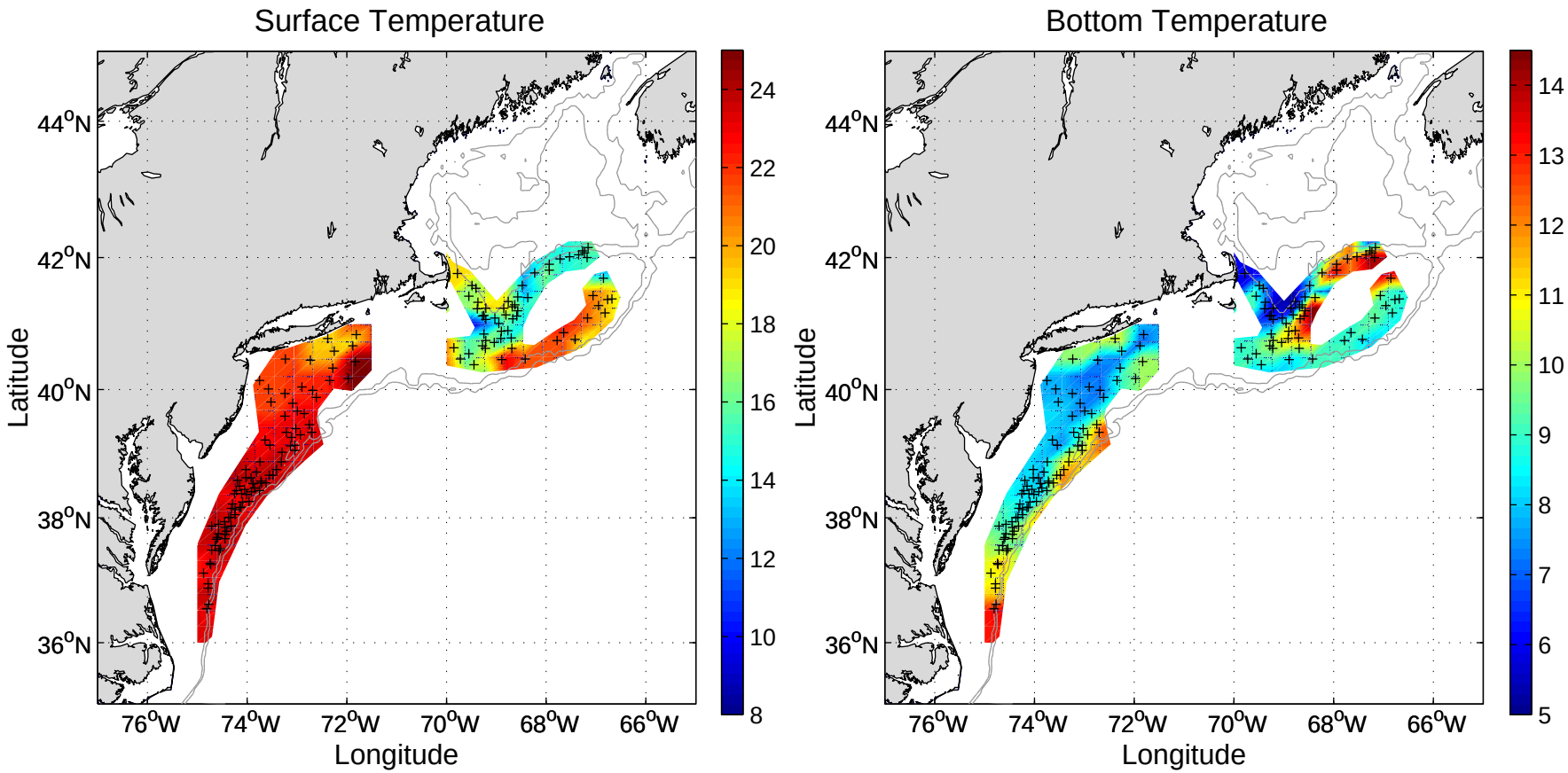

R/V Hugh Sharp − 2008 CTD Stations
45°N
44°N
43°N
42°N
41°N
40°N
39°N
38°N
37°N
36°N
35°N
Latitude
76°W
74°W
72°W
70°W
68°W
66°W
Longitude
= Leg 1
= Leg 2

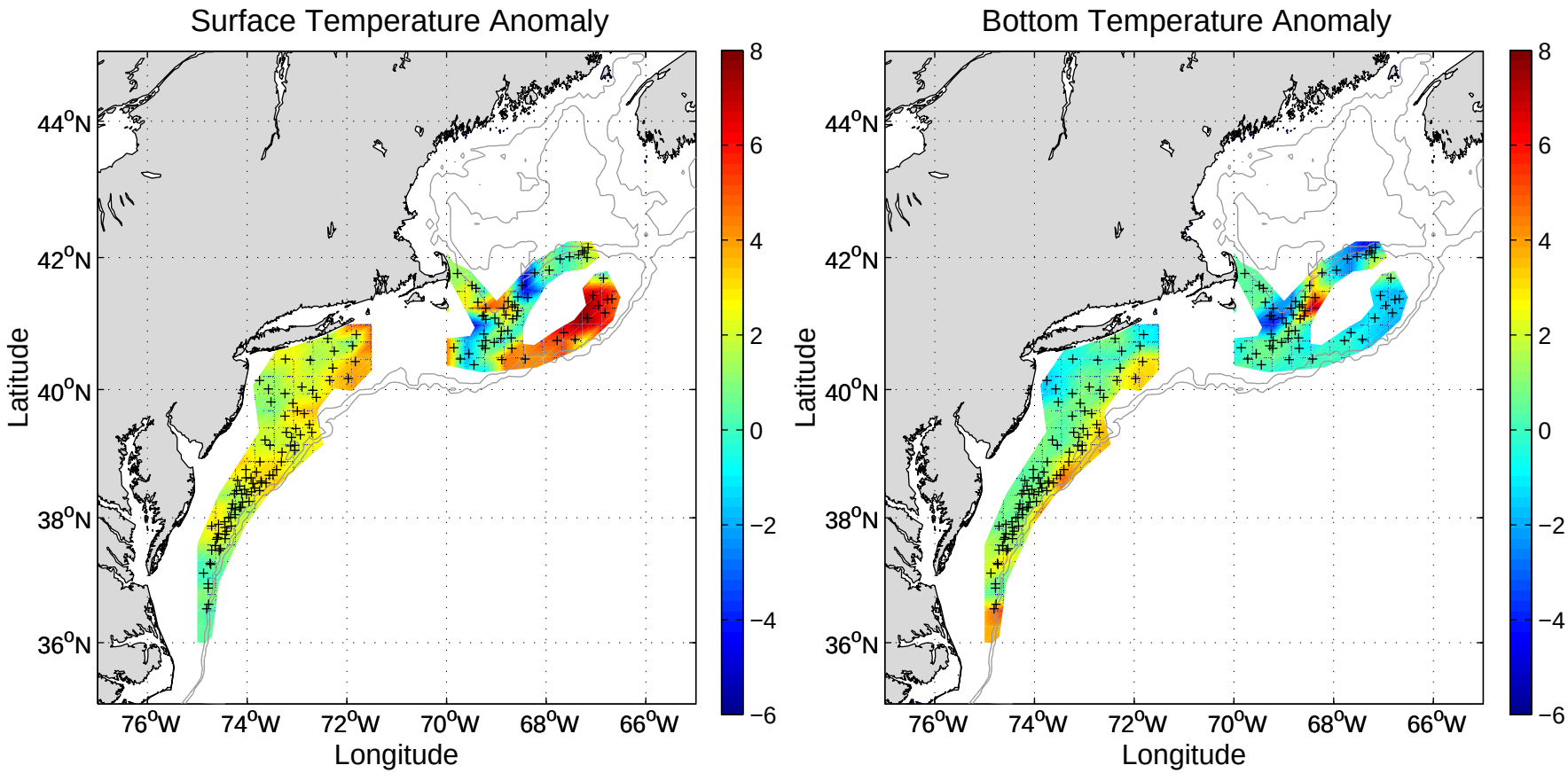
Regional average surface and bottom temperature / salinity and anomalies for the 2008 Scallop Survey

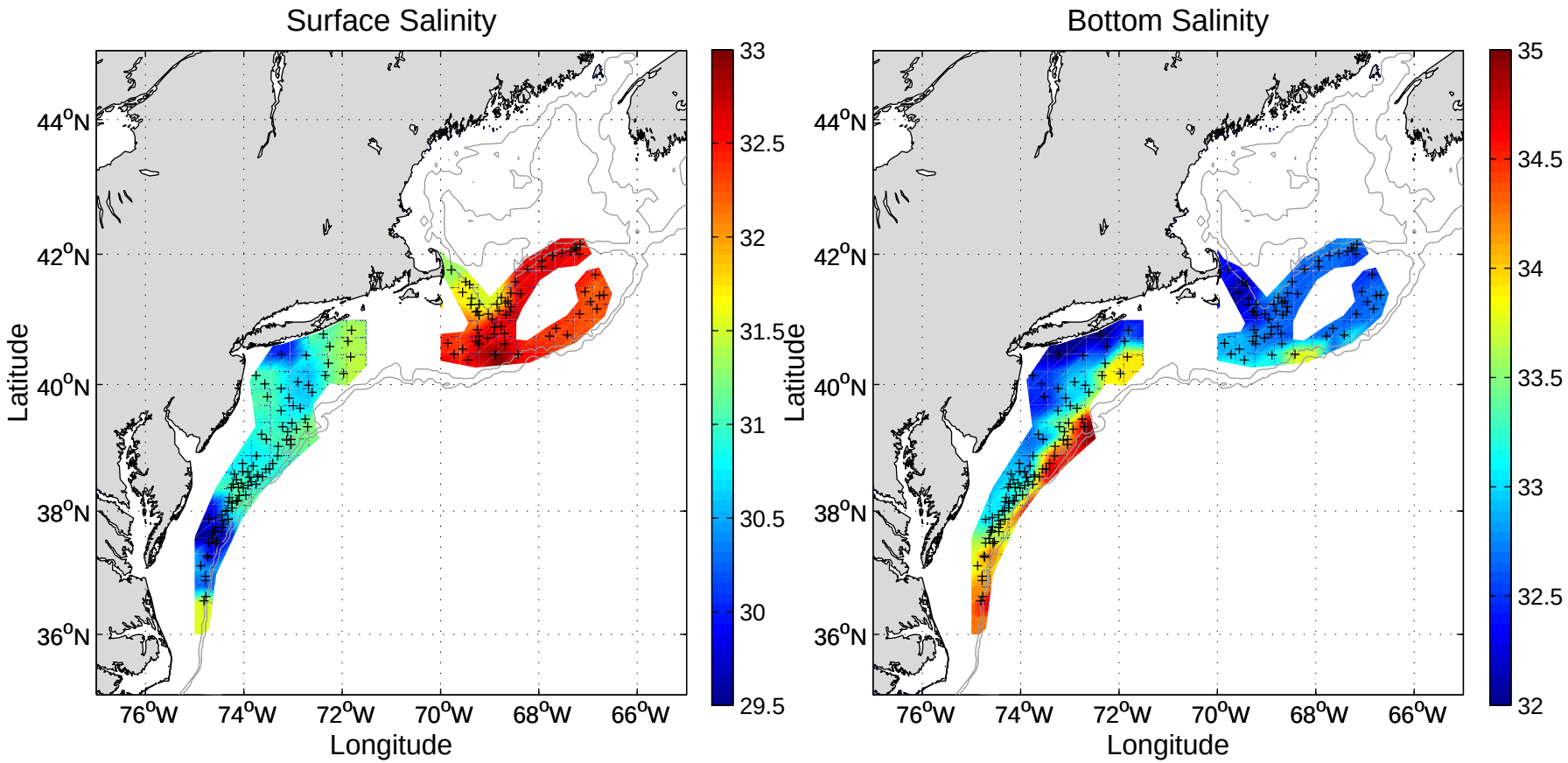
Decimal Year Day	Number of Surface obs	Surface Temp/Salt	Surface T/S Anomaly	SDV1	SDV2	Surface Flag*	Number of Bottom obs	Bottom Temp/Salt	Bottom T/S Anomaly	SDV1	SDV2	Bottom Flag*
						Georges Bank						
2008.58	42	16.88	2.16	0.17	3.01	1	41	10.36	-0.12	0.17	3.30	1
2008.58	42	32.49	-0.02	0.09	1.06	1	41	32.73	-0.11	0.09	0.78	1
						MAB-North						
2008.53	16	21.30	2.55	0.31	2.60	1	16	8.55	0.74	0.31	3.38	1
2008.53	16	31.32	-0.65	0.20	1.63	1	16	32.96	-0.05	0.19	1.23	1
						MAB-South						
2008.5	77	23.18	2.06	0.15	0.90	1	76	9.32	1.56	0.16	1.39	1
2008.5	77	30.73	-1.39	0.11	0.67	1	76	33.54	0.17	0.09	0.51	1

* A Flag value of 0 indicates that there were enough observations to calculate an area weighted value for the region.
A Flag value of 1 indicates that the spatial distribution of the observations was not sufficient to calculate an area weighted average for the region, and instead a simple average of the observations was calculated.

** SDV1 = the standard deviation associated with the average temperature / salinity
SDV2 = the standard deviation of the individual anomalies from which the average anomaly was derived


Surface Temperature
Bottom Temperature
Latitude
Longitude
44°N
42°N
40°N
38°N
36°N
76°W
74°W
72°W
70°W
68°W
66°W
24
22
20
18
16
14
12
10
8
14
13
12
11
10
9
8
7
6
5


Surface Temperature Anomaly
Bottom Temperature Anomaly
Latitude
Longitude
44°N
42°N
40°N
38°N
36°N
76°W
74°W
72°W
70°W
68°W
66°W
8
6
4
2
0
−2
−4
−6


Surface Salinity
Bottom Salinity
Latitude
Longitude
44°N
42°N
40°N
38°N
36°N
76°W
74°W
72°W
70°W
68°W
66°W
33
32.5
32
31.5
31
30.5
30
29.5
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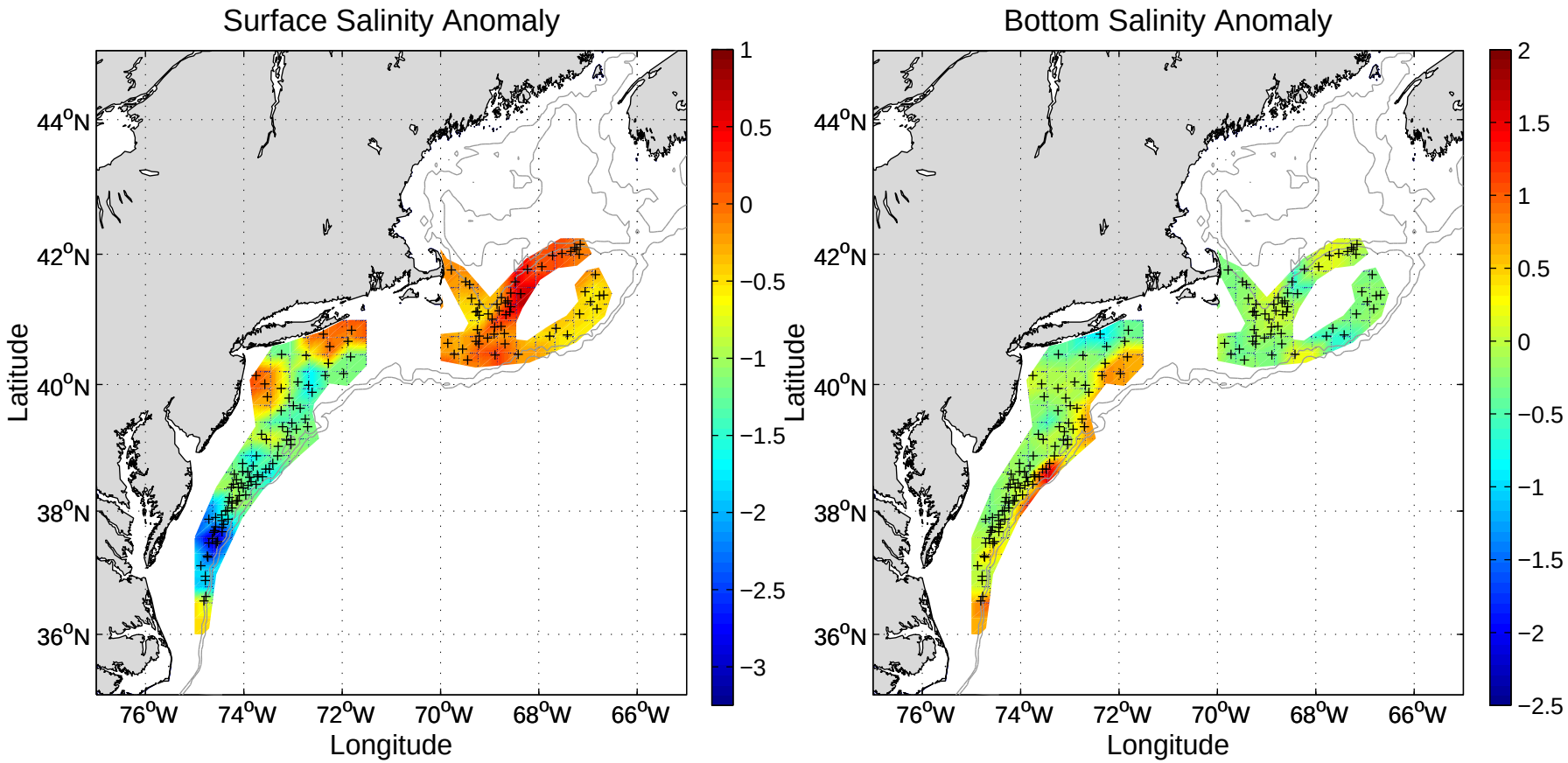
34.5
34
33.5
33
32.5
32


Surface Salinity Anomaly
Bottom Salinity Anomaly
Latitude
Longitude
44°N
42°N
40°N
38°N
36°N
76°W
74°W
72°W
70°W
68°W
66°W
1
0.5
0
−0.5
−1
−1.5
−2
−2.5
−3
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

R/V Hugh Sharp 2008 Scallop Survey

Cast	Sta	Latitude	Longitude	Day	Mon	Year	Time (GMT)	Station Depth	Surface Temp.	Surface Salinity	Bottom Temp.	Bottom Salinity	Meters From Bottom
1	1	3809.1	7418.7	22	6	2008	0:10	43	22.08	31.03	8.57	32.89	1
2	4	3800.1	7421.9	22	6	2008	4:04	58	22.12	31.21	8.46	33.20	2
3	7	3756.6	7427.2	22	6	2008	8:52	54	22.28	31.07	8.71	33.28	1
4	10	3750.8	7426.5	22	6	2008	13:19	59	21.87	31.10	8.84	33.42	2
5	13	3754.1	7433.9	22	6	2008	18:12	51	23.83	29.91	9.10	33.04	2
6	16	3744.9	7434.1	22	6	2008	21:45	57	23.67	29.60	8.72	33.16	3
7	19	3752.1	7442.8	23	6	2008	1:27	43	23.16	29.29	9.46	33.14	2
8	22	3741.5	7435.5	23	6	2008	4:54	60	23.83	28.93	8.71	33.17	2
9	26	3739.4	7436.7	23	6	2008	9:37	62	23.71	28.82	8.90	33.31	2
10	29	3733.3	7438.5	23	6	2008	14:31	58	23.59	29.05	9.48	33.57	1
11	32	3728.6	7433.6	23	6	2008	18:13	64	23.53	30.31	9.82	33.79	2
12	35	3729.3	7442.5	23	6	2008	23:02	52	23.63	29.44	10.16	33.53	2
13	41	3716.9	7444.1	24	6	2008	4:01	62	23.27	29.33	10.99	34.13	3
14	44	3707.1	7452.4	24	6	2008	7:35	54	22.46	30.50	10.63	33.76	2
15	47	3656.7	7446.7	24	6	2008	11:11	63	22.70	30.40	10.95	34.04	2
16	50	3637.4	7446.2	24	6	2008	16:01	82	22.67	31.54	13.45	34.85	3
17	53	3633.1	7448.8	24	6	2008	20:30	51	23.22	31.53	13.08	34.25	1
18	56	3652.8	7447.0	24	6	2008	23:55	62	23.73	30.23	11.19	34.14	1
19	59	3715.8	7443.8	25	6	2008	3:49	60	23.55	29.81	11.32	34.29	2
20	62	3730.3	7431.5	25	6	2008	7:46	66	22.91	30.66	9.50	33.71	2
21	65	3740.3	7426.6	25	6	2008	11:43	68	23.28	30.10	9.34	33.62	1
22	68	3744.2	7426.2	25	6	2008	14:52	69	23.27	29.94	9.11	33.54	1
23	71	3747.1	7424.8	25	6	2008	19:01	65	23.97	29.94	9.04	33.50	3
24	74	3752.4	7419.2	25	6	2008	22:53	73	23.80	30.59	10.53	34.09	1
25	77	3800.3	7419.5	26	6	2008	2:35	60	23.14	31.02	8.64	33.26	1
26	80	3802.8	7414.6	26	6	2008	6:10	60	23.21	31.16	8.82	33.45	1
27	83	3807.6	7414.4	26	6	2008	9:34	41	22.75	31.04	8.34	33.01	1
28	86	3809.5	7409.0	26	6	2008	13:00	72	23.02	31.18	10.41	34.07	1
29	89	3810.2	7407.4	26	6	2008	17:34	71	23.31	31.37	10.55	34.13	2
30	93	3815.3	7357.4	26	6	2008	21:49	68	22.75	31.18	11.73	34.62	1
31	97	3815.1	7405.1	27	6	2008	2:31	72	22.94	31.14	8.57	33.45	8

32	100	3812.9	7417.2	27	6	2008	7:16	52	22.96	31.01	8.56	32.89	2
33	104	3822.7	7414.8	27	6	2008	11:13	54	22.66	31.13	8.27	33.17	1
34	106	3830.1	7408.8	28	6	2008	3:07	51	23.33	30.90	8.03	33.10	1
35	109	3825.5	7412.6	28	6	2008	6:43	53	23.25	31.05	8.28	33.24	2
36	112	3822.9	7406.8	28	6	2008	10:38	59	23.21	31.15	8.29	33.24	1
37	115	3827.0	7402.7	28	6	2008	13:51	57	23.28	30.93	7.99	33.14	1
38	118	3822.0	7400.7	28	6	2008	17:12	64	23.69	30.96	9.47	33.82	1
39	121	3824.4	7354.8	28	6	2008	20:00	64	23.85	30.90	8.58	33.47	4
40	124	3825.6	7345.0	28	6	2008	23:30	72	23.63	30.97	12.85	35.03	1
41	127	3828.0	7350.9	29	6	2008	3:05	59	23.65	30.89	8.45	33.34	2
42	130	3832.2	7352.8	29	6	2008	7:13	57	23.59	30.87	7.82	32.98	1
43	133	3832.8	7342.6	29	6	2008	13:33	64	23.36	30.99	10.70	34.31	1
44	136	3832.7	7336.9	29	6	2008	17:25	68	23.47	31.04	11.42	34.46	5
45	139	3835.0	7342.9	29	6	2008	22:01	70	23.57	30.96	9.86	34.00	7
46	143	3832.4	7352.8	30	6	2008	3:49	56	23.90	30.87	7.89	32.97	2
47	146	3837.8	7354.9	30	6	2008	8:40	49	23.65	30.86	7.99	32.90	2
48	149	3837.6	7400.9	30	6	2008	12:34	52	23.62	30.85	7.93	33.02	5
49	152	3835.3	7411.2	30	6	2008	16:32	50	23.91	30.80	8.26	32.97	1
50	155	3845.4	7401.0	30	6	2008	20:40	49	23.93	30.85	8.19	32.90	3
51	158	3843.1	7348.3	1	7	2008	0:16	52	23.82	30.78	7.93	33.09	3
52	161	3840.2	7333.0	1	7	2008	3:58	64	23.61	30.77	10.04	34.06	1
53	164	3840.4	7329.0	1	7	2008	7:39	72	23.47	30.86	12.06	34.79	3
54	167	3845.8	7324.5	1	7	2008	12:11	77	22.92	30.95	12.45	34.91	1
55	170	3852.8	7344.5	1	7	2008	18:02	43	23.08	30.70	8.02	32.78	3
56	173	3852.7	7318.5	1	7	2008	22:34	77	23.93	30.86	10.54	34.25	1
57	177	3903.4	7302.2	2	7	2008	2:57	80	23.12	31.05	11.33	34.50	2
58	180	3908.1	7302.1	2	7	2008	6:24	70	23.03	31.09	9.89	34.00	2
59	183	3901.7	7318.0	2	7	2008	10:36	69	22.80	31.13	9.42	33.85	2
60	186	3912.9	7338.3	2	7	2008	21:53	45	22.84	30.86	8.14	32.63	1
61	189	3908.1	7332.3	3	7	2008	1:52	48	22.85	31.02	7.47	32.84	1
62	192	3920.5	7312.7	3	7	2008	6:03	62	22.90	30.97	7.91	33.25	2
63	195	3923.8	7301.2	3	7	2008	9:31	64	22.98	30.87	8.83	33.62	1
64	198	3915.7	7306.7	3	7	2008	12:40	67	22.99	31.03	9.20	33.74	3
65	201	3917.9	7255.9	3	7	2008	15:49	71	23.07	31.01	9.81	33.96	3
66	204	3920.4	7242.1	3	7	2008	19:40	102	23.30	31.23	12.35	34.94	4
67	207	3927.7	7245.1	3	7	2008	23:19	79	23.19	30.98	10.63	34.26	5
68	210	3937.6	7251.2	4	7	2008	4:04	65	22.83	30.68	8.71	33.58	2

69	213	3940.3	7259.2	4	7	2008	16:43	62	22.80	30.71	7.33	32.97	2
70	216	3935.4	7314.4	4	7	2008	21:16	40	23.33	30.80	7.90	32.66	2
71	220	4002.1	7254.1	5	7	2008	2:49	52	21.94	30.67	7.17	32.84	2
72	223	3947.5	7304.8	5	7	2008	6:22	55	22.09	30.65	7.50	32.99	2
73	226	3948.6	7331.2	5	7	2008	10:37	34	21.64	31.06	8.12	32.41	3
74	229	3956.3	7314.2	5	7	2008	14:37	76	21.20	30.85	7.81	33.23	3
75	232	4000.3	7334.3	5	7	2008	18:52	36	21.67	31.01	7.77	32.50	1
76	235	4008.5	7344.9	5	7	2008	22:51	34	18.50	31.02	7.88	32.47	2
77	238	4028.1	7313.6	6	7	2008	3:22	30	21.67	30.00	9.86	31.99	2
78	241	4027.2	7243.6	6	7	2008	8:13	45	19.64	30.83	7.47	32.59	2
79	244	4046.5	7222.8	6	7	2008	13:45	37	19.19	31.07	10.26	31.91	4
80	247	4035.4	7215.2	6	7	2008	17:00	50	19.79	31.20	7.49	32.59	2
81	250	4040.4	7153.0	6	7	2008	20:43	55	18.84	31.43	7.05	32.68	3
82	253	4050.6	7148.8	7	7	2008	0:10	46	21.62	31.32	7.84	32.39	2
83	256	4019.5	7216.8	7	7	2008	6:18	58	21.84	31.38	7.16	32.93	2
84	259	4008.3	7220.3	7	7	2008	10:01	73	22.44	31.10	9.00	33.84	2
85	262	3959.4	7241.0	7	7	2008	14:04	59	22.09	30.58	7.19	32.99	1
201	263	3907.7	7307.7	22	7	2008	11:46	72	25.23	31.16	8.74	33.55	2
202	267	3952.8	7236.3	22	7	2008	19:28	63	24.80	31.02	9.12	33.74	2
203	270	4010.3	7158.4	23	7	2008	3:37	69	24.94	31.44	9.90	33.89	1
204	273	4026.0	7149.9	23	7	2008	7:48	70	24.70	31.41	9.97	33.93	1
205	276	4038.3	6950.8	24	7	2008	6:10	57	20.39	32.45	8.92	32.86	1
206	279	4028.3	6942.9	24	7	2008	10:23	76	21.31	NULL	9.30	33.27	5
207	282	4032.7	6933.1	24	7	2008	15:19	63	15.54	32.31	9.10	32.92	1
208	285	4022.6	6927.2	24	7	2008	20:25	75	16.78	32.52	8.06	33.19	4
209	288	4037.5	6912.9	25	7	2008	0:28	70	18.52	32.78	9.33	32.83	1
210	291	4043.1	6902.3	25	7	2008	4:46	63	18.68	32.57	9.10	32.82	4
211	294	4040.3	6916.7	26	7	2008	8:40	48	15.44	32.69	9.99	32.80	2
212	296	4044.8	6912.6	26	7	2008	12:16	63	16.77	32.65	10.25	32.79	1
213	300	4050.7	6914.9	26	7	2008	16:40	56	14.29	32.62	11.04	32.76	1
214	303	4053.4	6853.7	26	7	2008	22:27	75	18.48	32.66	10.29	32.70	2
215	306	4100.7	6856.7	27	7	2008	2:58	78	15.58	32.63	11.07	32.69	2
216	309	4108.3	6848.3	27	7	2008	7:15	79	14.49	32.61	8.71	32.63	2
217	312	4115.4	6840.7	27	7	2008	10:48	67	13.58	32.67	11.70	32.68	2
218	316	4117.5	6837.6	27	7	2008	14:15	68	15.26	32.60	9.95	32.68	2
219	319	4123.9	6821.9	27	7	2008	18:42	62	15.20	32.67	13.65	32.70	3
220	322	4111.8	6834.0	27	7	2008	22:38	68	14.96	32.58	14.56	32.61	2

221	325	4107.4	6835.6	28	7	2008	2:04	59	14.29	32.67	14.13	32.65	2
222	328	4104.6	6840.4	28	7	2008	6:09	64	14.35	32.64	13.55	32.64	2
223	331	4054.1	6846.0	28	7	2008	10:16	69	14.51	32.48	12.68	32.54	3
224	334	4047.2	6842.1	28	7	2008	14:22	63	17.85	32.45	11.59	32.57	2
225	337	4047.0	6854.5	28	7	2008	17:53	67	14.55	32.48	11.40	32.61	2
226	341	4027.5	6853.4	28	7	2008	22:34	79	22.85	33.00	8.36	33.11	2
227	344	4037.6	6841.3	29	7	2008	1:28	65	22.03	32.66	8.65	32.81	3
228	348	4028.0	6825.4	29	7	2008	6:37	97	21.39	32.50	9.08	33.76	3
229	352	4044.8	6746.7	29	7	2008	13:15	70	21.35	32.29	8.99	32.69	2
230	355	4045.9	6725.1	29	7	2008	17:31	91	18.64	32.28	8.15	33.10	2
231	359	4052.4	6738.8	29	7	2008	21:58	72	22.50	32.39	8.86	32.71	2
232	362	4105.1	6709.9	30	7	2008	2:22	65	21.36	32.30	9.42	32.61	3
233	365	4116.6	6656.9	30	7	2008	5:46	68	19.63	32.23	9.08	32.66	2
234	371	4110.1	6648.9	30	7	2008	11:30	75	19.52	32.22	8.61	32.73	3
235	389	4122.9	6640.6	31	7	2008	11:49	82	18.08	32.29	8.69	32.76	3
236	393	4122.0	6646.4	31	7	2008	15:45	75	20.12	32.16	8.93	32.67	2
237	397	4126.0	6703.6	31	7	2008	20:22	61	19.70	32.29	11.60	32.51	2
238	401	4141.2	6651.1	1	8	2008	1:07	69	13.44	32.43	13.39	32.45	2
239	404	4200.0	6710.6	1	8	2008	6:34	53	15.27	32.46	13.81	32.56	2
240	407	4204.3	6713.5	1	8	2008	11:52	48	16.43	32.31	10.97	32.68	3
241	410	4208.9	6709.3	1	8	2008	15:58	91	16.64	32.28	9.01	32.75	2
242	413	4205.8	6716.2	1	8	2008	21:17	53	15.28	32.52	6.33	32.83	3
243	416	4202.1	6720.7	2	8	2008	1:22	52	15.18	32.48	14.14	32.55	2
244	420	4200.6	6731.9	2	8	2008	8:08	45	14.14	32.64	9.96	32.76	2
245	424	4158.9	6742.9	2	8	2008	12:26	55	14.63	32.66	12.08	32.69	2
246	427	4154.1	6756.1	2	8	2008	16:06	79	14.70	32.61	10.98	32.70	2
247	430	4148.6	6756.2	2	8	2008	19:16	43	16.34	32.58	13.45	32.62	2
248	434	4146.2	6813.9	2	8	2008	22:58	78	15.65	32.61	7.09	32.69	6
249	438	4134.8	6828.8	3	8	2008	3:57	93	12.79	32.58	8.50	32.60	2
250	441	4124.7	6834.4	3	8	2008	7:22	91	14.34	32.44	7.03	32.61	3
251	445	4120.6	6845.7	3	8	2008	12:00	108	18.17	31.56	5.16	32.95	3
252	448	4114.5	6851.1	3	8	2008	15:38	101	18.81	32.42	5.60	32.70	4
253	451	4105.5	6901.5	3	8	2008	19:40	94	12.72	32.56	6.96	32.49	2
254	455	4103.9	6912.8	4	8	2008	0:37	57	11.57	32.03	7.31	32.36	5
255	461	4107.1	6916.5	4	8	2008	5:43	58	8.61	32.24	8.20	32.29	2
256	465	4107.8	6914.8	4	8	2008	11:43	54	19.58	31.43	6.16	32.42	3
257	468	4114.6	6912.8	4	8	2008	15:13	92	19.07	31.49	5.53	32.56	3

258	472	4113.7	6922.9	4	8	2008	20:28	51	8.58	32.24	6.90	32.27	2
259	475	4119.8	6922.0	4	8	2008	23:46	52	20.72	31.21	6.67	32.27	2
260	478	4132.2	6924.7	5	8	2008	5:45	72	17.58	31.55	6.27	32.36	3
261	482	4125.0	6932.9	5	8	2008	11:19	32	16.58	31.68	9.01	32.08	3
262	485	4135.0	6929.1	5	8	2008	16:51	72	20.65	31.46	6.30	32.25	2
263	488	4145.6	6946.6	5	8	2008	22:16	88	19.12	31.34	6.00	32.36	1