

*Oceanography Branch CTD Data Report*  
*CTD\_REPORT\_2014002S1*

**For further information, contact Tamara Holzwarth-Davis  
National Marine Fisheries Service, Northeast Fisheries Science  
Center, Woods Hole, Massachusetts 02543-1097.**

DATE: March 12, 2015

# Oceanography Branch CTD Data Report

CTD\_REPORT\_2014002S1

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

S1 14-02  
2014 Northern Right Whale Survey  
Data Coverage: September 4 - 15, 2014  
Mid Atlantic Bight, Georges Bank, and Gulf of Maine

This report presents a summary of surface and bottom temperature and salinity data collected during the Northeast Fisheries Science Center's 2014 Northern Right Whale Survey aboard the UNOLS R/V *Hugh R. Sharp*. All data was obtained with the shipboard Seabird Electronics SBE Model 9/11+ CTD and a NMFS SBE19+ Seacat profiling CTD (s/n 4477). Salt water samples were collected for the purpose of calibrating the conductivity cell.

The SBE19+ was deployed on 16 double oblique bongo casts, 8 tow-yo'ed VPR casts, and 4 water sampling casts. The SBE9/11+ was used for 4 stations. Data presented here have been audited, however, corrections and/or updates may be applied at a later time.

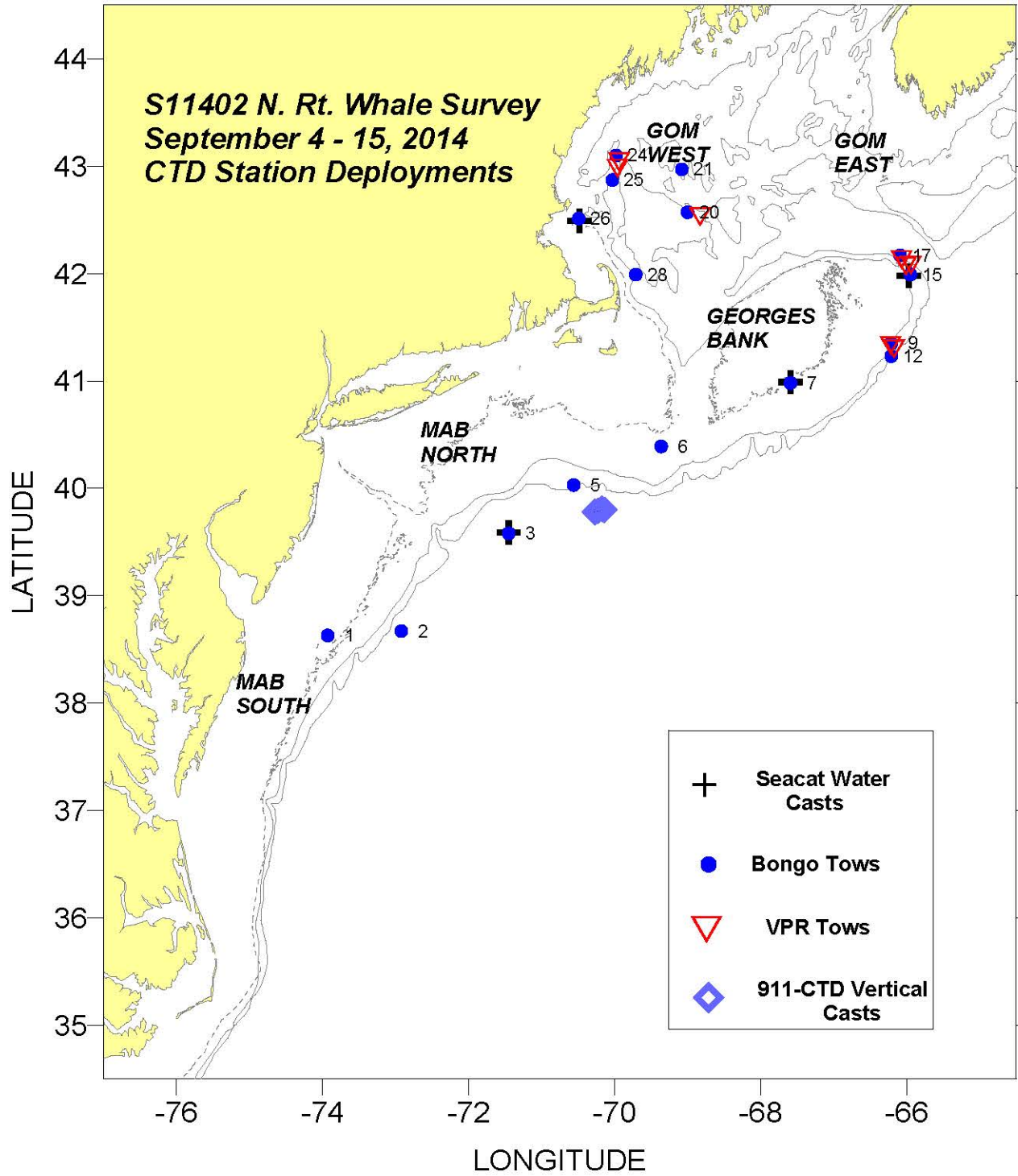
The most recent and complete station data can be found in an NODC formatted ASCII file at:  
<ftp://ftp.nefsc.noaa.gov/pub/hydro/s11402.dat>

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

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

choose: **2014 Cruises**  
**SEP\_WHALE\_S11402**  
**CTD\_REPORT\_2014002S1**

Revised: March 12, 2015



**Areal average surface and bottom temperature/salinity and temperature/salinity anomalies for the  
S11402 N. Rt. Whale Survey  
September 4 - 15, 2014**

CRUISE	CD	SURFACE						BOTTOM						Purpose
		#obs	T/S	Anomaly	SDV1	SDV2	Flag	#obs	T/S	Anomaly	SDV1	SDV2	Flag	
		<b>Western Gulf of Maine</b>												
s11402	254	10	18.81	2.98	1.12	1.21	1	2	6.32	0.62	0.66	n/a	1	93
s11402	254	10	31.76	-0.1	0.53	0.19	1	2	33.58	0.21	0.27	n/a	1	93

"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.

**S11402 Norther Right Whale Survey  
September 4 - 15, 2014**

<b>Cast</b>	<b>Sta</b>	<b>Lat</b>	<b>Long</b>	<b>Day</b>	<b>Mo</b>	<b>Year</b>	<b>Time</b>	<b>Btm</b>	<b>Sfc</b>	<b>Sfc</b>	<b>Deepest Observed</b>	<b>Deepest Observed</b>	<b>Meters from</b>	<b>Method of</b>
<b>#</b>	<b>#</b>	<b>(deg N)</b>	<b>(deg W)</b>				<b>(GMT)</b>	<b>Depth (m)</b>	<b>Temp (deg C)</b>	<b>Salt</b>	<b>Temp (deg C)</b>	<b>Salt</b>	<b>Bottom</b>	<b>Deployment</b>
1	1	3838.1	7355.8	4	9	2014	16:40	46	24.06	32.64	10.15	33.20	3	B
2	2	3840.4	7255.3	4	9	2014	23:14	1600	24.54	33.74	11.71	35.54	1395	B
3	3	3934.6	7127.1	5	9	2014	10:01	2200	24.88	35.51	11.73	35.54	1998	B
4	3	3935.4	7127.2	5	9	2014	10:35	2200	24.91	35.51	24.78	35.50	2182	W
5	4	4002.0	7033.3	5	9	2014	16:16	182	24.50	35.55	12.06	35.58	4	B
6	5	4023.6	6921.8	5	9	2014	23:08	74	22.08	34.01	13.94	34.31	5	B
7	6	4059.1	6735.6	6	9	2014	10:03	65	19.13	32.84	13.18	33.07	3	B
8	6	4059.7	6735.6	6	9	2014	10:20	65	19.07	32.84	13.23	33.07	27	W
9	7	4121.0	6612.7	6	9	2014	23:11	130	18.64	32.62	12.51	35.58	5	B
10	7	4119.9	6613.0	7	9	2014	0:25	131	16.81	32.81	12.95	35.62	7	O
11	8	4117.8	6610.5	7	9	2014	4:16	276	18.10	32.71	14.17	35.63	124	O
12	9	4113.5	6612.4	7	9	2014	17:13	626	17.99	32.61	11.50	35.51	413	B
13	10	4204.6	6556.2	8	9	2014	1:10	200	18.51	32.72	8.99	34.40	48	O
14	11	4204.4	6600.7	8	9	2014	4:50	155	16.26	32.74	8.74	34.42	8	O
15	12	4159.6	6557.0	8	9	2014	10:04	108	17.88	32.55	8.65	34.26	7	B
16	12	4158.9	6558.0	8	9	2014	10:29	108	17.90	32.55	9.23	33.12	69	W
17	13	4210.1	6605.1	8	9	2014	23:09	228	18.26	32.61	8.32	35.19	26	B
18	14	4207.5	6604.4	9	9	2014	1:11	195	18.12	32.56	10.01	34.80	44	O
19	15	4231.6	6849.6	10	9	2014	1:10	205	20.55	32.00	6.28	33.74	43	O
20	16	4234.0	6900.1	10	9	2014	10:13	300	20.27	31.98	7.76	34.24	121	B
21	17	4258.1	6904.9	10	9	2014	21:07	160	19.97	31.93	6.22	33.38	8	B
22	18	4258.7	6957.4	11	9	2014	2:05	201	18.01	31.67	5.88	33.54	50	O
23	19	4302.1	6956.7	11	9	2014	4:54	205	18.24	31.75	5.87	33.43	64	O
24	20	4305.9	6959.0	11	9	2014	10:05	129	18.15	31.69	6.65	32.86	25	B
25	21	4252.3	7001.7	11	9	2014	16:08	154	16.74	31.81	6.42	33.78	6	B
26	22	4230.6	7029.4	12	9	2014	10:10	63	18.20	31.49	7.75	32.60	12	B
27	22	4229.6	7028.6	12	9	2014	10:30	58	18.12	31.50	18.05	31.50	49	W

**S11402 Norther Right Whale Survey  
September 4 - 15, 2014**

Cast #	Sta #	Lat (deg N)	Long (deg W)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (deg C)	Sfc Salt	Deepest Observed Temp (deg C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
28	23	4159.3	6942.9	12	9	2014	23:05	169	19.81	31.74	6.03	33.51	17	B
1	24	3948.0	7008.6	15	9	2014	0:24	1400	24.18	35.58	6.01	35.05	897	W
2	25	3948.3	7010.3	15	9	2014	1:21	1500	24.13	35.60	6.13	35.05	998	W
3	26	3947.5	7013.7	15	9	2014	2:20	2000	24.17	35.59	6.21	35.06	1498	W
4	27	3947.1	7016.3	15	9	2014	3:14	1400	24.01	35.58	6.02	35.05	898	W

Deployment codes: B=bongo cast; W=water cast; and O = other (VPR tow-yo)