

# APPENDIX

**Table A1. 2011 regional average temperature and salinity values for individual cruises that sampled within the eastern Gulf of Maine (boundaries defined in Figure 1.) Average values incorporating less than 10 observations are shown in gray.**

Gulf of Maine East													
Cruise	Surface							Bottom					
	CD	#obs	Temp	Anomaly	SDV1	SDV2	Flag	#obs	Temp	Anomaly	SDV1	SDV2	Flag
DEL1102	45	23	4.50	-0.26	0.21	1.69	1	14	8.33	1.00	0.26	2.66	1
HB1102	116	29	5.90	0.43	0.18	1.43	1	27	8.05	1.06	0.19	1.96	1
DEL1105	164	24	10.24	0.68	0.19	1.14	0	19	8.45	0.92	0.25	0.76	0
S11101	165	3	10.95	1.33	0.55	-9.99	1	3	6.69	-1.82	0.52	-9.99	1
DEL1108	266	23	16.93	1.64	0.22	2.92	1	22	8.70	0.53	0.20	3.00	1
HB1105	303	21	11.40	-0.06	0.22	1.38	0	20	9.20	0.42	0.23	1.33	0
DEL1109	319	16	10.76	0.21	0.26	2.47	1	10	8.15	0.05	0.31	5.10	1

  

Cruise	Surface							Bottom					
	CD	#obs	Salinity	Anomaly	SDV1	SDV2	Flag	#obs	Salinity	Anomaly	SDV1	SDV2	Flag
DEL1102	45	23	4.50	-0.26	0.21	1.69	1	14	8.33	1.00	0.26	2.66	1
HB1102	116	29	5.90	0.43	0.18	1.43	1	27	8.05	1.06	0.19	1.96	1
DEL1105	164	24	10.24	0.68	0.19	1.14	0	19	8.45	0.92	0.25	0.76	0
S11101	165	3	10.95	1.33	0.55	-9.99	1	3	6.69	-1.82	0.52	-9.99	1
DEL1108	266	23	16.93	1.64	0.22	2.92	1	22	8.70	0.53	0.20	3.00	1
HB1105	303	21	11.40	-0.06	0.22	1.38	0	20	9.20	0.42	0.23	1.33	0
DEL1109	319	16	10.76	0.21	0.26	2.47	1	10	8.15	0.05	0.31	5.10	1

"Cruise", the code name for a cruise:  
 CD, the calendar mid-date of all the stations within a region for that cruise:  
 "#obs", the number of observations included in each average:  
 "Temp", the areal average temperature: "Salt", the areal average salinity:  
 Anomaly, the areal average temperature or salinity anomaly:  
 "SDV1", the standard deviation associated with the average temperature or salinity 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.

**Table A2. 2011 regional average temperature and salinity values for individual cruises that sampled within the western Gulf of Maine (boundaries defined in Figure 1.) Average values incorporating less than 10 observations are shown in gray.**

Gulf of Maine West													
Cruise	Surface							Bottom					
	CD	#obs	Temp	Anomaly	SDV1	SDV2	Flag	#obs	Temp	Anomaly	SDV1	SDV2	Flag
DEL1102	45	52	5.00	0.04	0.20	0.77	0	41	7.48	1.75	0.19	1.08	0
HB1102	121	53	7.04	0.74	0.15	0.73	0	52	7.17	2.04	0.13	0.96	0
DEL1105	166	43	12.03	0.16	0.17	1.17	0	36	7.52	1.70	0.17	0.96	0
S11101	167	7	11.83	-0.57	0.43	3.28	1	7	6.21	0.56	0.37	2.58	1
DEL1108	268	146	16.70	1.44	0.09	1.07	1	146	7.97	1.70	0.08	1.10	1
HB1105	310	53	11.76	0.98	0.16	0.93	0	53	8.68	1.33	0.13	0.99	0
DEL1109	321	19	10.72	1.11	0.24	1.87	1	17	8.36	1.28	0.23	3.29	1
DEL1110	339	16	10.13	1.77	0.28	2.63	1	14	9.55	1.59	0.28	2.32	1

  

Cruise	Surface							Bottom					
	CD	#obs	Salinity	Anomaly	SDV1	SDV2	Flag	#obs	Salinity	Anomaly	SDV1	SDV2	Flag
DEL1102	45	52	32.33	-0.66	0.13	0.42	0	41	33.55	0.00	0.11	0.43	0
HB1102	121	53	31.49	-0.94	0.10	0.91	0	52	33.42	0.09	0.07	0.51	0
DEL1105	166	43	31.41	-0.64	0.11	0.35	0	36	33.24	-0.05	0.10	0.54	0
S11101	167	7	31.36	-0.70	0.27	0.98	1	7	32.19	-0.63	0.22	0.91	1
DEL1108	268	146	31.70	-0.46	0.06	0.30	1	146	33.80	0.14	0.04	0.30	1
HB1105	310	53	32.16	-0.51	0.10	0.26	0	53	33.61	-0.01	0.08	0.38	0
DEL1109	321	19	32.20	-0.60	0.16	0.83	1	17	33.86	0.07	0.13	1.07	1
DEL1110	339	16	32.03	-0.67	0.19	1.33	1	14	32.86	-0.17	0.16	1.05	1

"Cruise", the code name for a cruise:  
 CD, the calendar mid-date of all the stations within a region for that cruise:  
 "#obs", the number of observations included in each average:  
 "Temp", the areal average temperature: "Salt", the areal average salinity:  
 Anomaly, the areal average temperature or salinity anomaly:  
 "SDV1", the standard deviation associated with the average temperature or salinity 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.

**Table A3. 2011 regional average temperature and salinity values for individual cruises that sampled within the Georges Bank area (boundaries defined in Figure 1.) Average values incorporating less than 10 observations are shown in gray.**

Georges Bank													
Cruise	Surface							Bottom					
	CD	#obs	Temp	Anomaly	SDV1	SDV2	Flag	#obs	Temp	Anomaly	SDV1	SDV2	Flag
DEL1102	42	37	5.97	0.79	0.18	0.68	0	29	6.10	0.13	0.22	1.11	0
HB1102	99	55	5.57	0.37	0.14	1.03	0	42	6.03	0.77	0.17	0.92	0
S11101	163	26	10.98	0.65	0.23	1.22	0	24	8.01	0.19	0.25	1.05	0
DEL1105	163	57	11.61	1.07	0.15	1.33	0	53	8.64	0.34	0.16	0.90	0
HB1103	174	11	15.60	0.26	0.39	3.04	1	4	9.14	0.82	0.64	6.81	1
DEL1108	267	19	16.47	1.25	0.22	1.10	1	18	13.87	1.15	0.23	2.58	1
HB1105	289	58	16.10	1.37	0.15	1.90	0	44	13.61	1.14	0.17	1.64	0
DEL1109	318	28	12.91	0.70	0.22	1.22	0	23	13.81	2.32	0.25	2.24	0
DEL1110	337	31	12.21	1.49	0.20	1.79	1	29	12.76	2.11	0.22	1.47	1

  

Cruise	Surface							Bottom					
	CD	#obs	Salinity	Anomaly	SDV1	SDV2	Flag	#obs	Salinity	Anomaly	SDV1	SDV2	Flag
DEL1102	42	37	33.01	0.06	0.11	0.41	0	29	33.08	-0.10	0.13	0.35	0
HB1102	99	55	32.48	-0.52	0.08	0.39	0	42	32.84	-0.33	0.10	0.49	0
S11101	163	26	32.06	-0.68	0.14	0.36	0	24	32.51	-0.64	0.15	0.37	0
DEL1105	163	57	32.18	-0.67	0.09	0.36	0	53	32.52	-0.50	0.10	0.39	0
HB1103	174	11	32.65	-0.78	0.24	1.70	1	4	33.05	-0.35	0.40	2.52	1
DEL1108	267	19	32.08	-0.48	0.13	0.18	1	18	32.38	-0.28	0.13	0.30	1
HB1105	289	58	32.45	-0.30	0.09	0.67	0	44	32.64	-0.33	0.10	0.52	0
DEL1109	318	28	32.44	-0.38	0.13	0.54	0	23	33.43	0.25	0.15	0.71	0
DEL1110	337	31	32.26	-0.55	0.11	0.87	1	29	32.84	-0.32	0.13	0.68	1

"Cruise", the code name for a cruise:  
 CD, the calendar mid-date of all the stations within a region for that cruise:  
 "#obs", the number of observations included in each average:  
 "Temp", the areal average temperature: "Salt", the areal average salinity:  
 Anomaly, the areal average temperature or salinity anomaly:  
 "SDV1", the standard deviation associated with the average temperature or salinity 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.

**Table A4. 2011 regional average temperature and salinity values for individual cruises that sampled within the northern Middle Atlantic Bight (boundaries defined in Figure 1.) Average values incorporating less than 10 observations are shown in gray.**

Northern Mid Atlantic Bight													
Cruise	Surface							Bottom					
	CD	#obs	Temp	Anomaly	SDV1	SDV2	Flag	#obs	Temp	Anomaly	SDV1	SDV2	Flag
DEL1101	15	2	10.11	-0.80	1.03		1						
DEL1102	36	22	5.57	-0.49	0.28	0.99	0	17	5.80	-0.74	0.32	1.40	0
HB1102	82	55	5.27	0.60	0.17	0.81	0	47	5.13	-0.35	0.20	1.73	0
S11101	141	14	12.04	1.14	0.33	3.11	1	14	6.92	0.57	0.33	2.76	1
DEL1105	161	63	15.59	1.92	0.20	1.32	0	56	8.74	1.08	0.22	1.40	0
HB1103	186	16	18.89	2.57	0.35	2.06	1	13	10.29	0.52	0.36	3.28	1
HB1104	221	1	24.82	3.11	1.77		1						
HB1105	273	49	20.40	2.54	0.18	1.74	0	42	13.48	1.02	0.22	2.16	0
DEL1109	311	24	14.21	0.13	0.27	1.00	0	23	14.95	1.67	0.28	1.83	0
DEL1110	340	30	12.13	2.28	0.23	1.54	1	25	11.77	1.65	0.24	1.03	1

  

Cruise	Surface							Bottom					
	CD	#obs	Salinity	Anomaly	SDV1	SDV2	Flag	#obs	Salinity	Anomaly	SDV1	SDV2	Flag
DEL1101	15	2	34.08	-0.33	0.69		1						
DEL1102	36	22	32.78	-0.41	0.18	0.48	0	17	32.90	-0.67	0.19	0.41	0
HB1102	82	55	32.35	-0.54	0.11	0.60	0	47	32.64	-0.81	0.12	0.46	0
S11101	141	14	31.80	-0.29	0.22	1.70	1	14	32.28	-0.74	0.20	0.70	1
DEL1105	161	63	31.69	-0.67	0.13	0.70	0	56	32.48	-0.61	0.13	0.49	0
HB1103	186	16	32.22	-0.75	0.21	1.22	1	13	33.21	-0.53	0.20	1.15	1
HB1104	221	1	31.81	-2.00	1.02		1						
HB1105	273	49	32.09	-0.58	0.12	1.36	0	42	32.90	-0.53	0.13	0.67	0
DEL1109	311	24	32.39	-0.62	0.17	0.82	0	23	33.38	-0.34	0.16	0.71	0
DEL1110	340	30	32.23	-0.43	0.14	0.79	1	25	32.14	-0.62	0.14	0.67	1

"Cruise", the code name for a cruise:  
 CD, the calendar mid-date of all the stations within a region for that cruise:  
 "#obs", the number of observations included in each average:  
 "Temp", the areal average temperature: "Salt", the areal average salinity:  
 Anomaly, the areal average temperature or salinity anomaly:  
 "SDV1", the standard deviation associated with the average temperature or salinity 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.

**Table A5. 2011 regional average temperature and salinity values for individual cruises that sampled within the southern Middle Atlantic Bight (boundaries defined in Figure 1.) Average values incorporating less than 10 observations are shown in gray.**

Southern Mid Atlantic Bight													
Cruise	Surface							Bottom					
	CD	#obs	Temp	Anomaly	SDV1	SDV2	Flag	#obs	Temp	Anomaly	SDV1	SDV2	Flag
DEL1101	15	31	9.15	-0.94	0.25	0.85	1	14	7.47	-1.04	0.35	1.94	1
DEL1102	35	34	5.94	-0.65	0.24	1.42	0	24	5.41	-0.31	0.28	1.16	1
HB1102	70	69	6.79	0.59	0.16	1.37	0	58	6.49	0.35	0.21	1.58	0
S11101	135	35	12.94	0.94	0.22	1.86	1	35	6.68	-0.95	0.24	1.35	1
DEL1105	156	42	20.65	3.52	0.20	0.95	0	39	10.23	0.54	0.23	2.69	0
HB1103	174	14	22.12	2.56	0.36	1.05	1	11	10.28	1.23	0.46	3.09	1
HB1104	220	29	23.95	1.46	0.29	0.90	1	1	9.86	3.03	1.32	-9.99	1
HB1105	261	90	22.08	0.40	0.14	1.56	0	73	14.02	-0.02	0.18	2.29	0
DEL1109	311	39	15.70	0.17	0.22	1.47	0	37	15.09	0.49	0.25	1.11	0

  

Cruise	Surface							Bottom					
	CD	#obs	Salinity	Anomaly	SDV1	SDV2	Flag	#obs	Salinity	Anomaly	SDV1	SDV2	Flag
DEL1101	15	31	33.61	-0.80	0.18	2.00	1	14	33.57	-0.08	0.22	0.43	1
DEL1102	35	34	32.90	-0.49	0.18	0.65	0	24	32.79	-0.39	0.17	0.54	1
HB1102	70	69	32.80	-0.46	0.12	1.04	0	58	33.12	-0.48	0.12	0.48	0
S11101	135	35	32.21	-0.45	0.16	0.95	1	35	32.81	-0.78	0.14	0.40	1
DEL1105	156	42	30.50	-1.56	0.16	1.77	0	39	32.94	-0.31	0.14	0.71	0
HB1103	174	14	31.65	-1.03	0.26	1.02	1	11	33.03	-0.23	0.26	0.95	1
HB1104	220	29	31.96	-1.51	0.19	0.67	1	1	33.51	0.17	0.81	-9.99	1
HB1105	261	90	31.30	-1.01	0.11	1.48	0	73	32.10	-1.04	0.11	0.65	0
DEL1109	311	39	32.32	-0.65	0.17	1.22	0	37	32.57	-0.82	0.15	0.61	0

"Cruise", the code name for a cruise:  
 CD, the calendar mid-date of all the stations within a region for that cruise:  
 "#obs", the number of observations included in each average:  
 "Temp", the areal average temperature: "Salt", the areal average salinity:  
 Anomaly, the areal average temperature or salinity anomaly:  
 "SDV1", the standard deviation associated with the average temperature or salinity 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.

**Table A6. 2011 Temperature, salinity and volume of the shelf water in the Middle Atlantic Bight during 2011. The shelf water is defined as water within the upper 100 meters having salinity less than 34.**

CD	Temp	Temp. Anomaly	Salt	Salt Anomaly	SHW Temp	SHW T. Anom	SHW Salt	SHW S. Anom	SHW Volume	SHW Vol. Anomaly
<b>MABN</b>										
36	6.76	0.16	33.18	-0.36	5.76	0.34	32.84	-0.29	2327.84	336.85
82	5.70	0.19	32.83	-0.51	5.30	0.87	32.66	-0.39	2339.72	257.80
163	10.75	0.43	32.53	-0.70	10.49	0.78	32.34	-0.48	2227.30	300.71
273	16.65	1.71	33.24	-0.39	16.10	1.59	32.50	-0.40	1734.97	192.54
311	15.13	0.79	33.34	-0.38	14.49	0.73	32.75	-0.26	1809.13	451.64
<b>MABS</b>										
16	9.99	0.05	34.27	0.05	6.95	-0.28	33.30	0.17	1735.12	563.37
35	7.70	-1.19	33.61	-0.57	5.39	-0.32	32.82	-0.42	1957.07	789.36
70	7.89	-0.04	33.64	-0.34	6.54	1.39	33.09	-0.29	2496.55	1177.90
135	9.19	-0.78	32.84	-0.60	8.42	-1.02	32.62	-0.24	3580.41	1655.11
157	13.55	2.07	32.99	-0.31	12.54	1.51	32.07	-0.54	2166.33	43.48
261	16.84	0.42	32.96	-0.54	16.07	-0.21	32.21	-0.72	2540.20	413.86
312	15.54	0.84	33.09	-0.85	15.13	0.18	32.69	-0.36	2548.01	910.72