

slope the year round, veering through west to southwest across the basin toward the offing of Massachusetts Bay; and though variations in salinity and temperature prove this drift intermittent, its stream track seems comparatively constant from season to season during its periods of activity.

The correspondence between the dominant circulation of the gulf, as established by direct evidence, and the dynamic gradient is close enough to show that the former is essentially dynamic, set in motion by the regional inequalities in density, but given its eddylike character by the confining effect of the bottom contour of Georges Bank to the south.

• Deflection of the horizontal tidal oscillations by the rotation of the earth similarly tends to produce an anticlockwise movement around the basin of the gulf, and with the effect of the wind consistent with this, the several motive forces are parallel in effect.

The westerly drift of slope water along the slope of the continent is also dynamic in source, and available evidence suggests the same motive power for the "Gulf Stream" drift abreast of the gulf.

## TABLES OF TEMPERATURE, SALINITY, AND DENSITY

Temperature is in degrees Centigrade, salinity in parts per mille, and density is at the temperature *in situ* but without correction for compression. The tables on page 977, summarized from Ekman's (1910) tables 2, 4, and 5, give a close enough approximation to the latter for general purposes in depths as small as those of the Gulf of Maine. For computations involving the specific volume, Smith's (1926, p. 19) simplification of Hesselberg and Sverdrup's (1915) tables are to be preferred.

## STANDARDS OF ACCURACY

The old type reversing thermometers used in 1912 and 1913 were accurate only to within about  $\pm 0.15^\circ$  C., but with the instruments used subsequently for the subsurface readings the probable error in temperature determination is less than  $0.05^\circ$  C. As the surface readings have often been taken under difficulties and by various persons, accuracy is not claimed for them beyond about  $\pm 0.3^\circ$  C.

All the determinations of salinity, except some for the winter of 1925 (noted below under the respective stations), have been by titration. So far as personal and instrumental errors are concerned, the results are reliable considerably within the requirements of the International Committee for the Exploration of the Sea—probably to  $\pm 0.03$  per mille of salinity. However, as Giral (1926) has recently emphasized, regional or seasonal variations in the relative proportions of the various solutes in sea water, such as are known to occur, introduce another source of error, which makes it unsafe to claim accuracy closer than about 0.05 per mille even for waters as nearly uniform in their saline content as the Gulf of Maine probably is.

The accuracy of the calculated densities depends, of course, on that of the determinations of temperature and salinity on which they are based; and while errors in these two may partially offset each other, they may, on the contrary, be cumulative. Allowing as the probable range of error  $0.05^\circ$  and  $\pm 0.3$  per mille, the probable error

for the densities will average less than  $\pm 0.04$  units when the salinity has been determined by titration. In the case of hydrometer readings, the probable error of the densities will be about  $\pm 0.1$  unit.

All depths, whether originally recorded in meters or fathoms, are given in meters in these tables. Tables 1, 2, and 3 show the compression of sea water as condensed from Ekman's (1910) tables 2, 4, and 5.<sup>99</sup>

TABLE 1.—Correction of density for depth—water 0° and 28 in density (sp. gr. 1.028)

Depth, meters	Increase in density	Depth, meters	Increase in density	Depth, meters	Increase in density	Depth, meters	Increase in density
10	0.05	80	0.38	200	0.97	700	3.35
20	.10	90	.43	250	1.20	800	3.83
30	.14	100	.48	300	1.42	900	4.30
40	.19	120	.57	400	1.93	1,000	4.78
50	.24	140	.67	500	2.40	1,100	5.25
60	.29	160	.76	600	2.88	1,200	5.72
70	.33	180	.87				

TABLE 2.—Additional corrections for compression at other temperatures

Depth	Add		Subtract																		
	-1°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°		
50							0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
100					0.01	0.01	.01	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
200	0.01	0.01	0.01	0.02	.02	.03	.03	.04	.04	.04	.05	.05	.05	.06	.06	.06	.07	.07	.07	.08	.08
300	.01	.01	.02	.02	.03	.04	.05	.06	.06	.07	.08	.08	.09	.09	.10	.10	.10	.10	.10	.10	.10
400	.01	.01	.02	.03	.04	.05	.06	.07	.08	.09	.10	.11	.12	.12	.13	.14					
500	.01	.01	.03	.04	.05	.07	.08	.09	.10	.11	.12	.14	.15	.15	.16						
600	.02	.02	.03	.05	.07	.08	.10	.11	.12	.14	.15	.16	.16	.18							
700	.02	.02	.04	.06	.08	.10	.11	.13	.14	.16	.17	.19	.20								
800	.02	.02	.05	.07	.09	.11	.13	.15	.16	.18	.20										
900	.03	.03	.05	.07	.10	.12	.14	.16	.18	.20	.22										
1,000	.03	.03	.06	.08	.11	.13	.16	.18	.20	.23	.25										
1,100	.03	.03	.06	.09	.12	.15	.17	.20	.22												
1,200	.03	.03	.07	.10	.13	.16	.19	.22	.24												

TABLE 3.—Additional corrections for compression at other densities

Depth	Density							
	Subtract						Add	
	22	23	24	25	26	27	29	30
100		0.01	0.01					
200		.01	.01					
300		.02	.02	0.01	0.01			0.01
400		.02	.02	.02	.01			.01
500		.03	.02	.02	.02	.01		.01
600		.04	.03	.03	.02	.01	0.01	0.01
700		.04	.04	.03	.02	.01	.01	.01
800		.05	.04	.03	.03	.02	.01	.01
900		.06	.05	.04	.03	.02	.01	.01
1,000		.06	.05	.04	.03	.02	.01	.01
1,100		.07	.06	.05	.04	.02	.01	.01
1,200		.08	.06	.05	.04	.03	.01	.01

<sup>99</sup> Condensation of the tables entails employing an average relationship between meters and decibars. Consequently, they are accurate only to  $\pm 2$  in the last decimal place. This, however, falls within the accuracy of observation and will suffice for the construction of all ordinary projections of density in water so shoal.

TABLE 4.—Temperatures, salinities, and densities, "Grampus" stations, 1912

Station	Date, 1912	Position	General locality	Depth	Temperature	Salinity	Density
10001	July 9	42 30 N. 70 34 W.	} Off Gloucester .....	0	17.78	32.07	23.05
				60	5.00		
				64		32.65	25.83
10002	July 10	42 32 N. 70 23 W.	} Offing of Gloucester .....	0	18.33	31.74	22.6
				18	9.56		
				64	4.61		
				73		32.77	25.97
				110	4.61		
118		32.92	26.09				
10003	do	42 37 N. 70 22 W.	} 7½ miles off Cape Ann .....	0	18.89		
				46	5.05		
10005	July 12	42 32 N. 70 36 W.	} 3½ miles off Eastern Point, Gloucester .....	0	16.28	31.67	23.23
				49	5.17		
				55		32.57	25.76
10006	July 13	42 22 N. 70 43 W.	} Off Boston Harbor .....	0	16.11	31.96	23.45
				18	6.28		
				46		32.52	25.70
				49	5.17		
10007	July 15	42 44 N. 69 50 W.	} Offing of Cape Ann .....	0	17.78	31.62	22.71
				46	7.39		
				91	4.61		
				137	4.61	33.49	26.54
				229	4.61	33.78	26.77
10008	July 16	42 45 N. 70 39 W.	} North of Cape Ann .....	0	16.11		
				37		32.39	25.70
				40	5.78		
10009	do	42 49 N. 70 28 W.	} Offing of Merrimac River .....	0	19.72	31.44	22.22
				91	4.44	32.84	26.05
10011	July 17	43 04 N. 70 20 W.	} Near Isles of Shoals .....	0	15.00	31.92	23.64
				27	7.17		
				46		32.61	
				55	5.17		
				82	4.61		
				110	4.61	32.85	26.94
146		33.04					
10012b	July 23	42 53 N. 70 20 W.	} Southeast from Isles of Shoals .....	0	13.89	31.92	23.85
				146	4.11		
10014	July 24	43 19 N. 70 13 W.	} Offing of Kennebunkport .....	0	13.89	31.08	23.19
				9	12.89		
				27	6.89		
				46	6.28		
10015	July 25	43 37 N. 70 00 W.	} Mouth of Casco Bay .....	0	14.44	31.26	23.23
				9	12.50		
				18	10.78		
				37	7.50		
				55	6.89	32.88	25.78
10016	July 26	43 42 N. 69 42 W.	} Near Seguin Island .....	0	13.89	31.20	23.29
				9	12.00		
				18	10.78		
				27	8.72		
				37	7.44	32.14	25.13
10019	July 29	43 30 N. 69 48 W.	} Offing of Casco Bay .....	0	13.89	31.92	23.89
				37	8.50		
				55	7.56		
				73	5.89		
				91	5.67	32.97	26.01
10021	Aug. 2	43 38 N. 69 13 W.	} Off Monhegan Island .....	0	13.05	32.43	23.21
				27	9.22		
				55	8.17		
				82	7.50		
				110	7.22	32.94	25.78
10022	Aug. 7	43 26 N. 70 04 W.	} Offing of Cape Elizabeth .....	0	16.67		
				82	7.95	32.74	25.53

1 Approximate only.

TABLE 4.—Temperatures, salinities, and densities, "Grampus" stations, 1912—Continued

Station	Date, 1912	Position	General locality	Depth	Temperature	Salinity	Density
10023	Aug. 7	43 10 N. 69 40 W.	}Platts Bank.....	0	17.78	32.52	23.41
				27	8.61	-----	-----
				46	7.33	-----	-----
				64	5.61	-----	-----
				82	4.89	33.30	26.36
10025	Aug. 8	43 26 N. 68 49 W.	}Offing of Penobscot Bay.....	0	13.33	32.34	24.26
				18	9.56	-----	-----
				37	9.56	-----	-----
				55	9.11	-----	-----
				73	8.22	-----	-----
10026	do	43 40 N. 69 02 W.	}do.....	0	13.89	-----	-----
				118	7.67	33.13	25.87
10027	Aug. 14	43 26 N. 68 06 W.	}South of Mount Desert Island.....	0	15.00	32.66	24.21
				46	7.78	-----	-----
				91	7.22	33.64	26.35
				137	6.28	-----	-----
				183	6.00	33.89	26.69
10028	do	43 26 N. 67 20 W.	}East side of basin.....	0	15.00	32.75	24.28
				18	10.39	-----	-----
				37	8.72	-----	-----
				55	7.56	-----	-----
				101	7.39	-----	-----
				146	7.39	-----	-----
10029	do	43 26 N. 66 25 W.	}German Bank.....	0	10.44	32.70	25.19
				18	9.83	-----	-----
				37	9.67	-----	-----
				55	9.67	-----	-----
				64	9.61	32.92	25.41
10031	Aug. 15	43 45 N. 66 55 W.	}West of Lurher Shoal.....	0	13.33	32.84	24.65
				37	11.50	-----	-----
				73	10.22	-----	-----
				110	8.17	-----	-----
				137	7.67	33.82	26.41
10032	Aug. 16	43 56 N. 67 58 W.	}Near Mount Desert Rock.....	0	13.89	32.51	24.30
				165	-----	34.13	-----
10033	do	44 25 N. 67 30 W.	}Off Machias, Me.....	0	10.6	32.68	25.09
				9	10.4	-----	-----
				27	9.83	-----	-----
				46	9.67	-----	-----
				64	9.61	32.68	25.22
10034	Aug. 17	44 50 N. 66 53 W.	}Grand Manan Channel, off Campobello.....	0	10.00	-----	-----
				18	9.83	-----	-----
				46	9.83	-----	-----
				73	9.61	-----	-----
				101	9.56	32.68	25.23
10035	Aug. 19	44 36 N. 67 11 W.	}Off Cutler, Me.....	0	10.56	32.57	25.00
				18	9.78	-----	-----
				37	9.78	-----	-----
				55	9.78	-----	-----
				73	9.72	-----	-----
				82	-----	32.65	25.1
10036	Aug. 20	44 16 N. 67 23 W.	}Offing of Machias, Me.....	0	11.39	32.75	24.98
				37	9.50	-----	-----
				110	8.22	-----	-----
				146	7.61	-----	-----
				183	7.44	34.31	26.84
10037	Aug. 21	44 17 N. 68 05 W.	}Off Frenchmans Bay.....	0	12.78	-----	-----
				18	10.50	-----	-----
				37	9.89	-----	-----
10038	do	43 51 N. 68 33 W.	}Offing of Penobscot Bay.....	0	13.05	32.32	24.35
				37	9.95	-----	-----
				55	9.28	-----	-----
				73	9.05	-----	-----
				91	9.05	32.95	25.52
10039	Aug. 22	43 37 N. 69 01 W.	}do.....	0	13.33	-----	-----
				37	9.44	-----	-----
				73	8.89	-----	-----
				110	8.33	-----	-----
				146	7.11	33.37	26.14

TABLE 4.—Temperatures, salinities, and densities, "Grampus" stations, 1912—Continued

Station	Date, 1912	Position	General locality	Depth	Temperature	Salinity	Density
10041	Aug. 24	43 06 N. 70 12 W.	Off Isles of Shoals.....	0	16.11	32.07	23.54
				146	4.61		
10043	Aug. 29	42 11 N. 69 53 W.	Offing of northern Cape Cod.....	0	15.56	32.39	23.89
				37	10.50		
				73	8.05	33.15	25.83
				110	5.56		
				146	5.17		
				174	5.17	33.69	26.64
10044	Aug. 31	42 09 N. 70 22 W.	Massachusetts Bay, north of Cape Cod.....	0	14.44	32.03	23.84
				18	11.50		
				37	7.72		
10045	do	42 20 N. 70 36 W.	Mouth of Massachusetts Bay.....	55	6.83	32.52	25.47
				0	16.11	31.92	23.42
				37	8.72		
10046	do	42 30 N. 70 39 W.	Massachusetts Bay off Gloucester.....	55	6.83	32.56	25.54
				0	16.11	31.67	23.22
				37	8.72		
10047 <sup>1</sup>	Nov. 20	42 27 N. 70 40 W.	7 miles south (true) from Gloucester harbor mouth.....	0	9.17	32.57	25.21
				46	9.00	32.57	25.24
				62	9.00	32.66	25.30
10048 <sup>2</sup>	Dec. 4	42 26 N. 70 40 W.	do.....	0	8.11	32.56	25.36
				46	7.83	32.56	25.40
				70	7.83	32.61	25.45
10049 <sup>1</sup>	Dec. 23	42 26 N. 70 40 W.	do.....	0	6.95	32.74	25.66
				42	6.95	32.75	25.68
				70	6.95	32.75	26.68

<sup>1</sup> Stations occupied by steamer Bluewing

TABLE 5.—Temperatures and salinities, Massachusetts Bay to Georges Bank, April, 1913

Date	Latitude	Longitude	Depth, meters	Temperature	Salinity
Apr. 11.....	41 47	67 18	0		33.22
14.....	41 37	67 18	0	6.7	33.21
15.....	41 52	66 45	46	6.1	33.33
15.....	42 03	67 01	0		33.22
15.....	42 08	67 12	0		33.38
15.....	42 14	67 28	0	6.7	
26.....	42 20	70 45	128	5.28	31.51
26.....	42 08	70 10	0		32.29
27.....	41 48	69 21	0		33.13
27.....	41 34	68 45	0		33.25
27.....	41 27	68 20	0	7.8	33.16
			64	6.7	33.21

TABLE 6.—Observations by W. W. Welsh, April and May, 1913

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
1	Mar. 19	42 31 N. 70 29 W.	Off Gloucester.....	0	3.90	33.01	26.23
				88	3.90	33.17	26.36
2	do	42 35 N. 70 28 W.	do.....	0	3.95	32.84	26.10
				119	3.78	33.17	26.37
4	Mar. 27	42 51 N. 70 20 W.	Off Merrimac River.....	0	4.00	32.61	25.91

TABLE 6.—Observations by W. W. Welsh, April and May, 1918—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
5	Mar. 29	43 12 N. 70 25 W.	Near Boon Island.....	0	3.50	32.45	25.83
				31	3.72	32.83	26.11
				64	3.83	32.99	26.23
7	Apr. 4	43 13 N. 70 24 W.	do.....	0	3.90	32.77	26.04
8	Apr. 5	43 10 N. 70 28 W.	do.....	0	3.90	32.74	26.02
				26	3.78	32.81	26.09
				51	3.90	33.04	26.26
				59		33.04	26.26
9	Apr. 9	43 24 N. 70 20 W.	Off Wood Island.....	0	3.83	29.57	23.46
				16	3.95	30.79	24.46
				33	4.05	31.00	24.63
10	Apr. 10	43 23 N. 70 21 W.	do.....	0	3.44	26.74	21.30
				18	4.05	31.80	25.20
				38	4.00	32.52	25.84
11	Apr. 13	42 57 N. 70 39 W.	Near Isles of Shoals.....	0	4.50	31.56	25.03
				18	4.11	32.43	25.76
				37	4.05	32.66	25.94
12	Apr. 14	43 18 N. 70 26 W.	Off Cape Porpoise.....	0	4.56	29.18	23.09
				18	4.17	31.92	25.35
				37	3.90	32.47	25.81
13	Apr. 16	42 55 N. 70 41 W.	Near Isles of Shoals.....	0	5.05	30.66	24.26
				20	4.67	31.47	24.95
				55	4.05	32.52	25.83
14	Apr. 18	42 50 N. 70 41 W.	Off Merrimac River.....	0	5.00	30.79	24.37
				18	4.72	30.97	24.53
				44	4.05	32.47	25.79
15	Apr. 20	42 55 N. 70 45 W.	Off Hampton.....	0	4.67	31.11	-----
16	Apr. 22	42 55 N. 70 37 W.	Near Isles of Shoals.....	0	4.83	31.43	24.89
				18	4.44	31.71	25.16
				46	4.05	32.80	26.05
17	Apr. 23	42 59 N. 70 39 W.	do.....	0	5.11	30.93	24.47
				11	4.67	31.53	24.98
				27	4.05	32.56	25.86
18	Apr. 25	43 12 N. 70 27 W.	Near Boon Island.....	0	6.67	31.76	24.94
				27	4.05	32.46	25.78
				55	4.06	32.65	25.94
19	Apr. 26	43 00 N. 70 35 W.	Near Isles of Shoals.....	0	7.95	30.03	23.40
				27	4.00	32.45	25.78
				64	4.00	32.74	26.01
20	Apr. 29	43 02 N. 70 35 W.	do.....	0	7.11	31.51	24.69
				27	4.05	32.33	25.68
				64	4.00	32.72	26.00
21	May 1	42 57 N. 70 38 W.	do.....	0	6.56	30.66	24.08
				48	4.05	32.48	25.80
22	May 2	42 57 N. 70 40 W.	do.....	0	7.22	30.64	23.99
23	May 3	42 54 N. 70 42 W.	Off Hampton.....	0	8.11	29.92	23.31
				20	6.00	31.56	24.87
				46	4.05	32.49	25.80
24	May 5	42 54 N. 70 42 W.	do.....	0	9.05	29.54	22.87
				22	5.17	31.95	25.27
				48	4.11	32.50	25.81
25	May 6	42 56 N. 70 41 W.	do.....	0	9.78	29.60	22.80
				46	4.11	32.52	25.83
26	May 8	42 56 N. 70 41 W.	do.....	0	8.22	29.93	23.29
				9	7.33	-----	-----
				18	5.44	-----	-----
				44	4.17	32.30	25.65

TABLE 6.—Observations by W. W. Welsh, April and May, 1913—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
27	May 10	42° 56' N. 70° 44' W.	Off Hampton.....	0	7.56	30.44	23.79
				20	5.56		25.78
				40	4.11	32.46	
28	May 12	42° 56' N. 70° 44' W.	do.....	0	7.17	30.73	24.06
				18	5.67		
				37		32.18	
29	May 13	42° 56' N. 70° 44' W.	do.....	0	7.28	30.88	24.16
				22	5.33		
				44	4.22	32.33	25.67
30	May 14	42° 58' N. 70° 35' W.	Near Isles of Shoals.....	0	8.11	30.50	23.75
				27	5.28	32.62	
				53	4.39		25.88
31	May 16	42° 56' N. 70° 42' W.	Off Hampton.....	0	8.17	30.94	24.09
				48		32.39	25.52
32	May 17	42° 32' N. 70° 44' W.	North side, Massachusetts Bay, off Bakers Island.....	0	8.50	30.95	24.05
				16	7.28	31.25	24.46

TABLE 7.—"Grampus" stations, 1913

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10050 <sup>1</sup>	Jan. 16	42° 26' 00" N. 70° 40' 00" W.	7 miles south (true) from Gloucester Harbor mouth.....	0	5.39	32.81	25.91
				46	5.28	32.86	25.93
				70	5.61	32.94	25.99
10051 <sup>1</sup>	Jan. 30	42° 33' 00" N. 70° 41' 00" W.	4 miles south (true) from Gloucester Harbor mouth.....	0	4.72	32.56	25.79
				18	4.83		
				35	5.39	32.82	25.93
10052 <sup>1</sup>	do	42° 43' 00" N. 70° 39' 00" W.	Ipswich Bay.....	0	4.61	32.20	25.52
				15	4.83		
				33	5.33	32.90	25.99
10053 <sup>1</sup>	Feb. 13	42° 37' 00" N. 70° 30' 00" W.	4 miles south, 70° east, from Cape Ann.....	0	2.83	32.83	26.19
				46	2.78	32.83	26.20
				82	3.11	32.84	26.18
10054 <sup>1</sup>	Mar. 4	42° 33' 30" N. 70° 30' 00" W.	6 miles south, 32° east, from Thatchers Island.....	0	2.89	32.85	26.20
				46	3.05	32.96	26.27
				82	3.61	33.04	26.29
10055 <sup>1</sup>	Apr. 3	42° 33' 00" N. 70° 30' 00" W.	do.....	0	4.05	32.32	25.68
				18	4.05		
				37	4.05		
				46		33.03	26.24
				77	3.95	33.12	26.32
10056 <sup>1</sup>	Apr. 14	42° 33' 00" N. 70° 39' 30" W.	2 miles south from Gloucester Harbor mouth.....	0	5.56	31.11	24.56
				46	4.11	32.79	26.05
10057	July 8	42° 06' 00" N. 69° 56' 00" W.	Off northern Cape Cod.....	0	16.11	31.90	23.43
				18	10.33	31.97	24.55
				37	5.89	32.48	25.59
				55		32.70	
10058	do	41° 47' 00" N. 69° 10' 00" W.	Offing of southern Cape Cod.....	0	17.22	32.40	23.52
				55	5.05	33.10	26.18
				110	4.78	33.35	26.40
				165	5.17	33.36	26.38
10059	July 9	41° 06' 00" N. 68° 42' 00" W.	Northwest part of Georges Bank.....	0	13.33	33.06	24.93
				27	12.61	33.07	24.99
				55	12.61	33.13	25.04
10060	do	40° 41' 00" N. 69° 33' 00" W.	5 miles northeast of Nantucket Lightship.....	0	16.11	32.63	23.94
				18	14.11	32.68	24.40
				46	10.17	33.04	25.41

<sup>1</sup> Stations occupied by steamer Bluewing.

TABLE 7.—“Grampus” stations, 1913—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10081	July 10	40 00 00 N. 69 29 00 W.	Continental edge S. 8° E. Nantucket Shoals Lightship.	0	20.00	33.41	23.55
				46	8.83	33.51	25.00
				91	8.50	33.62	26.14
10082	do	40 29 00 N. 70 29 00 W.	Offing of Marthas Vineyard.	0	19.44	32.86	23.42
				37	7.89	33.04	25.77
				73	6.44	33.44	26.28
10085	Aug. 4	41 39 00 N. 69 42 00 W.	Off Chatham, Cape Cod.	0	17.50	32.05	23.15
				18	6.44	32.47	25.51
				48	5.83	32.56	25.66
10086	Aug. 5	42 06 00 N. 70 00 00 W.	Off northern Cape Cod. Same locality as No. 10057.	0	17.11	32.09	23.30
				18	11.72	32.23	24.51
				37	6.56	32.52	25.54
				55	6.28	32.52	25.58
10087	Aug. 9	42 31 00 N. 70 21 00 W.	Mouth of Massachusetts Bay, off Gloucester.	73	6.22	32.52	25.59
				0	16.67	32.09	23.41
				18	10.78		
				37		32.68	
10088	do	42 33 00 N. 69 33 00 W.	Basin in offing of Cape Ann.	46	6.05		
				91	5.17	32.77	25.91
				128	5.17	32.75	25.90
				0	19.17	32.21	22.91
10089	Aug. 10	43 02 00 N. 69 19 00 W.	52 miles southeasterly from Cape Elizabeth.	40	7.72		
				91	5.17	33.17	26.22
				183	6.28	33.87	26.64
				274	6.33	34.27	26.96
10090	do	42 51 00 N. 68 25 00 W.	Near Cashes Ledge.	0	16.39	32.52	23.88
				18	12.05		
				46	6.67	32.95	25.86
				91	6.67	33.26	26.10
10091	Aug. 11	43 24 00 N. 68 49 00 W.	Offing of Penobscot Bay.	183	5.12	33.46	26.46
				0	16.11	32.56	23.91
				18	11.17		
				46	6.78	32.92	25.83
10092	do	43 27 00 N. 67 55 00 W.	Basin in offing of Mount Desert Rock.	91	6.39	33.21	26.11
				183	6.61	33.84	26.57
				0	16.11	32.47	23.84
				18	14.50	32.57	24.22
10093	Aug. 12	43 24 00 N. 67 12 00 W.	East side of basin off German Bank.	46	8.61		
				91	6.72		
				110		33.40	26.20
				0	16.67	32.59	24.05
10094	do	43 25 00 N. 66 43 00 W.	Western slope of German Bank.	18	11.44		
				37	9.22		
				46	6.22	33.10	26.04
				73-82	5.56		
10095	do	43 20 00 N. 66 27 00 W.	German Bank.	91	5.83	33.28	26.23
				183	6.11	33.91	26.70
				238	6.05	34.14	26.81
				0	15.83	32.61	23.95
10096	do	43 24 00 N. 67 12 00 W.	East side of basin off German Bank.	18	14.50		
				37	10.67		
				55		32.95	
				91	5.56		
10097	do	43 25 00 N. 66 43 00 W.	Western slope of German Bank.	110		33.58	26.50
				137	5.89		
				219	5.89	34.10	26.86
				0	8.80	32.75	25.46
10098	do	43 20 00 N. 66 27 00 W.	German Bank.	18	8.33		
				37		33.01	25.69
				46	8.33		
				73		33.24	25.88
10099	do	43 20 00 N. 66 27 00 W.	German Bank.	91	8.17		
				113	7.17	33.62	26.32
				0	8.80	32.75	25.43
				9	8.78		
10100	do	43 20 00 N. 66 27 00 W.	German Bank.	18	8.67	32.92	25.56
				55	8.56	32.94	25.69

<sup>1</sup> Approximately

TABLE 7.—“Grampus” stations, 1913—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10096	Aug. 12	43 56 00 N. 66 50 00 W.	Off Lurcher Shoal.....	0	12.22	32.75	24.89
				18	10.95		
				46	9.67		
				55		33.42	
				91	8.44		
				119	6.11	33.39	
10097	Aug. 13	44 13 00 N. 67 21 00 W.	Northeast end of basin off Bay of Fundy.....	0	12.78	32.75	24.80
				18	11.67		
				55		32.77	
				91	8.00		
				201	6.00	34.09	26.85
10098	do	44 24 00 N. 67 29 00 W.	Off Machias, Me.....	0	10.28	32.47	25.01
				18	9.56		
				27		32.59	
10099	do	44 08 00 N. 68 10 00 W.	4 miles west of Great Duck Island, off Mount Desert.	0	12.78	32.38	24.39
				37	9.33	32.61	25.33
10100	do	43 52 00 N. 67 58 00 W.	Off Mount Desert Rock.....	0	12.78	32.75	24.67
				18	10.11		
				37		32.95	
				46	8.50		
				91	7.78	33.28	25.98
10101	Aug. 14	43 44 00 N. 68 44 00 W.	Offing of Penobscot Bay.....	183	6.22	33.87	26.65
				0	11.95	32.68	24.83
				18	10.11		
				37		32.92	
				46	9.28		
10102	do	43 34 00 N. 69 13 00 W.	12 miles S. 20° E. from Monhegan Island Light.....	91	8.50	33.26	25.86
				0	16.11	32.23	23.65
				18	9.56		
				37		32.66	
				46	8.72		
10103	do	43 32 00 N. 69 55 00 W.	Off Casco Bay.....	91	7.44		
				128		33.17	26.20
				137	5.89		
				0	16.11	31.83	23.35
				18	11.39		
10104	Aug. 15	43 08 00 N. 70 03 00 W.	Trough west of Jeffreys Ledge, off Boon Island.....	37		32.63	
				46	8.05		
				91	6.72	32.83	25.76
				0	17.22	31.85	23.14
				18	9.61		
10105	do	42 48 00 N. 70 27 00 W.	Trough west of Jeffreys Ledge, off Ipswich.....	37		32.57	
				46	7.33		
				91	5.50	33.06	26.10
				146		33.10	
				155	4.33		
10106	Aug. 20	42 29 00 N. 70 37 00 W.	Mouth of Massachusetts Bay, 6 miles off Gloucester Harbor mouth.	0	17.78	32.09	23.18
				18	9.83		
				46	6.89		
				55		32.66	
				91	5.33		
10112	Aug. 22	40 17 00 N. 70 57 00 W.	Offing of Marthas Vineyard, 60 miles.....	110	4.61	32.74	25.95
				0	16.11	32.15	23.59
				27	9.17	32.41	25.08
				69	6.72	32.57	25.56
				0	20.83	34.00	24.02
37	17.22						
64	15.67	34.83	25.71				
110	15.44	35.17	26.02				

² Approximately

TABLE 8.—“Grampus” stations, 1914

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10213	July 19	42 11 N. 69 59 W.	} Off Northern Cape Cod -----	0	16.83	31.17	22.6
				20	9.06		
				40	5.38	32.34	
				100	3.97	32.74	26.05
				120		32.95	
10214	do	41 49 N. 69 21 W.	} Basin, off Chatham, Cape Cod -----	130	4.41		
				0	17.5	31.80	23.12
				20	15.75		
				40	7.25	32.25	25.24
				100	4.22	32.92	26.13
10215	July 20	41 19 N. 68 42 W.	} Northwest part, Georges Bank -----	150	5.12	33.25	
				190	5.53	33.49	26.44
				0	16.68	32.09	23.53
				20	12.24		
				40	10.43	32.81	25.19
10216	do	40 38 N. 68 20 W.	} Southwest part, Georges Bank -----	70	9.62	32.88	25.38
				0	18.60	33.10	23.87
				20	13.90		
				40	13.04	33.53	25.30
				70	10.64	34.83	26.76
10217	July 21	40 20 N. 68 13 W.	} Southwest slope, Georges Bank -----	0	17.3	32.74	23.82
				20	10.64		
				40	9.15	33.60	26.01
				100	11.80		
				150	10.63	35.23	27.04
10218	do	40 06 N. 68 06 W.	} Continental slope, southwest of Georges Bank -----	0	20.48	34.42	24.37
				40	17.70	36.04	26.16
				100	14.87	35.82	26.65
				200	10.85	35.32	
				300	9.46	35.14	27.07
10219	do	40 39 N. 67 28 W.	} Southern slope of Georges Bank -----	400	34.96	34.90	27.59
				500	5.25	34.90	27.59
				0	18.90	33.55	23.68
				20	17.33		
				40	16.00		
10220	July 22	40 54 N. 66 13 W.	} Continental slope, southeast of Georges Bank -----	90	10.28	34.65	26.65
				0	19.98	33.82	23.94
				40	15.35	34.97	25.89
				100	11.20	35.23	26.93
				200	8.18	35.01	27.27
10221	do	41 07 N. 66 20 W.	} Southeast slope of Georges Bank -----	300	6.90	34.94	27.41
				400	5.55	34.87	27.52
				500	5.02	34.87	27.59
				0	16.50	32.74	24.05
				40	16.18	34.78	25.52
10222	do	41 20 N. 66 19 W.	} Southeast edge of Georges Bank -----	100	12.00	35.16	26.74
				160	10.78	35.25	27.03
				0	14.67	32.48	24.28
				90	8.98	34.18	26.50
				0	13.33	32.59	24.57
10223	July 23	41 35 N. 66 37 W.	} Southeast part of Georges Bank -----	20	10.86	32.63	24.97
				40	8.90	32.78	25.41
				75	7.02	33.03	25.76
				0	11.11	32.47	24.84
				30	10.76	32.54	24.92
10224	do	42 06 N. 66 57 W.	} Northeast part of Georges Bank -----	55	10.78	32.61	24.97
				0	15.28	32.16	23.81
				40	10.00	33.17	25.54
				100	9.53	34.69	26.80
				150	9.33	35.05	27.12
10225	do	42 22 N. 67 11 W.	} Southeast part of basin north of Georges Bank -----	200	8.40	35.08	27.29
				250	7.93	35.08	27.36
				0	15.28	32.25	23.88
				40	12.60	32.34	24.43
				85	6.00	33.03	25.94
10226	July 24	42 08 N. 66 14 W.	} Northeast edge of Georges Bank -----	0	15.28	32.25	23.88
				40	12.60	32.34	24.43
				85	6.00	33.03	25.94
				0	15.28	32.25	23.88
				40	12.60	32.34	24.43

TABLE 8.—“*Grampus*” stations, 1914—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10227	July 24	42 19 N. 66 02 W.	Eastern Channel between Georges and Browns Banks.	0	15.11	32.47	24.06
				40	9.30	33.04	25.55
				80	8.91	34.18	26.90
				130	8.80	34.78	27.00
				170	7.15	34.99	27.41
				220	6.95	35.03	27.47
10228	do	42 34 N. 65 51 W.	Browns Bank.	0	14.72	32.20	23.90
				40	8.35	33.40	25.99
				85	8.50	34.25	26.63
10229	July 25	42 55 N. 65 41 W.	Northern Channel	0	11.44	32.01	24.39
				40	6.17	32.38	25.48
				100	5.96	32.92	25.93
10230	do	43 19 N. 65 23 W.	Offing of Cape Sable.	0	10.28	31.47	24.17
				30	3.03	32.07	25.56
				50	3.14	32.34	25.77
10231	July 27	43 37 N. 64 57 W.	Profile off Shelburne, Nova Scotia.	0	6.62	31.62	24.85
				30	1.81	31.98	25.59
				50	1.91 1.97	32.20	25.71
10232	July 28	43 12 N. 64 27 W.	do.	0	15.00	31.26	32.12
				40	4.38	31.74	25.23
				100	2.88 3.45	32.88	-----
				140	5.55 5.76	33.64	26.54
10233	do	42 41 N. 63 58 W.	do.	0	16.95	31.22	22.85
				40	7.34	32.06	25.80
				100	7.59	34.16	26.69
				200	7.74	-----	-----
				300	7.62	34.96	27.31
				500	5.30 4.98	34.92 34.83	27.59 27.57
10243	Aug. 11	43 18 N. 65 27 W.	Offing of Cape Sable.	0	13.61	31.67	23.72
				30	7.47	31.67	24.75
				55	3.51	31.98	25.46
10244	Aug. 12	43 22 N. 66 26 W.	German Bank.	0	10.00	32.84	25.28
				30	9.04	32.86	25.36
				55	9.60	32.90	25.39
10245	do	43 49 N. 66 51 W.	West of Lurher Shoal.	0	14.44	32.52	24.20
				40	9.44	33.42	25.83
				80	8.75	33.87	26.29
				120	8.54	34.11	26.51
10246	do	44 15 N. 67 23 W.	Basin in offing of Machias, Me.	0	14.44	33.06	24.61
				40	8.35	33.35	25.95
				100	6.28	33.57	26.41
				150	7.58	34.05	26.68
				190	8.17	34.47	26.85
10247	do	44 21 N. 67 28 W.	Off Machias, Me.	0	10.44	32.52	24.96
				30	8.97	-----	-----
				60	8.88	32.84	25.47
10248	Aug. 13	43 46 N. 67 58 W.	Off Mount Desert Rock.	0	13.33	32.65	24.52
				40	8.45	32.97	25.63
				100	7.18	33.51	26.24
				150	6.04	33.64	26.49
				190	8.34	34.49	26.84
10249	do	43 17 N. 67 40 W.	Eastern part of basin.	0	17.50	31.91	23.06
				40	6.38	32.74	25.74
				100	5.31	33.06	26.12
				150	6.04	33.55	26.41
				220	5.83	33.48	26.41
10250	Aug. 14	43 39 N. 68 49 W.	Offing of Penobscot Bay.	0	13.05	32.52	24.48
				40	8.59	32.92	25.57
				100	7.04	33.24	26.04
				145	6.26	33.39	26.27

TABLE 8.—“Grampus” stations, 1914—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10251	Aug. 14	43 27 N. 69 39 W.	} Offing of Casco Bay.....	0	16.56	31.92	23.28
				40	5.65	32.38	25.55
				100	4.41	32.70	25.98
				145	4.93	33.24	26.31
10252	Aug. 15	42 57 N. 70 18 W.	} Off Isles of Shoals.....	0	16.22	31.64	23.15
				40	7.80	32.39	25.27
				90	4.64	32.56	25.80
10253	Aug. 22	42 29 N. 70 18 W.	} Offing of Gloucester.....	0	18.89	31.29	22.19
				40	6.47	32.29	25.37
				100	4.64	32.43	25.70
10254	..do..	42 37 N. 69 38 W.	} Basin, offing of Cape Ann.....	40	5.75	32.43	25.57
				100	4.36	33.42	26.37
				150	5.51	34.11	26.56
10255	Aug. 23	42 27 N. 68 30 W.	} Central part of basin.....	200	6.80	34.11	26.56
				260	7.09	34.23	26.82
				0	19.17	31.89	22.62
				40	7.81	32.52	25.37
10256	..do..	41 55 N. 69 25 W.	} Southwest part of basin, offing of Cape Cod.....	100	3.95	32.81	26.07
				150	5.13	33.33	26.35
				175	6.24	33.87	26.65
				0	19.56	31.80	22.46
10257	Aug. 24	41 39 N. 69 49 W.	} Off Chatham, Cape Cod.....	40	6.57	32.38	25.43
				100	4.24	32.88	26.10
				150	5.38	33.51	26.48
				180	5.68	33.64	26.54
10258	Aug. 25	41 03 N. 70 51 W.	} On profile running southward from Marthas Vineyard.....	0	20.00	32.05	22.54
				25	6.80	32.09	25.18
				0	19.72	32.16	22.76
10259	..do..	40 34 N. 70 46 W.	} ..do.....	15	14.29	32.43	24.16
				30	12.09	32.52	24.66
				0	21.05	33.69	23.25
10260	Aug. 26	40 03 N. 70 41 W.	} ..do.....	25	14.83	33.53	24.12
				55	9.67	33.60	25.98
				0	22.89	33.78	23.08
				40	13.67	34.09	25.53
10261	..do..	39 54 N. 70 43 W.	} ..do.....	100	11.63	35.23	26.88
				140	11.45	35.41	27.02
				0	23.50	34.11	23.14
				100	13.06	35.46	26.75
10262	..do..	40 02 N. 70 26 W.	} ..do.....	200	11.99	35.16	27.10
				300	9.91	35.16	27.53
				450	7.26	35.16	27.53
				0	21.89	33.64	23.24
10263	Aug. 27	41 12 N. 70 57 W.	} ..do.....	40	13.07	33.89	25.53
				100	11.34	35.14	26.84
				180	10.35	35.26	27.11
				0	17.89	32.12	23.11
10264	Aug. 28	42 09 N. 70 00 W.	} Off northern Cape Cod.....	17	13.30	32.45	24.38
				0	16.67	32.05	25.07
				30	7.34	32.48	25.63
10266	May 4	42 30 N. 70 20 W.	} Offing of Gloucester.....	80	5.65	32.48	25.63
				0	6.11	32.32	25.44
				50	3.55	32.68	26.01
10267	May 5	42 38 N. 69 36 W.	} Basin, offing of Cape Ann.....	130	3.55	32.81	26.11
				0	6.10	33.03	26.00
				50	5.00	33.15	26.23
10267	May 5	42 38 N. 69 36 W.	} Basin, offing of Cape Ann.....	130	4.69	33.17	26.27
				260	6.59	34.02	26.72
				0	6.10	33.03	26.00

TABLE 9.—Grampus stations, 1915

10266	May 4	42 30 N. 70 20 W.	} Offing of Gloucester.....	0	6.11	32.32	25.44
				50	3.55	32.68	26.01
				130	3.55	32.81	26.11
10267	May 5	42 38 N. 69 36 W.	} Basin, offing of Cape Ann.....	0	6.10	33.03	26.00
				50	5.00	33.15	26.23
				130	4.69	33.17	26.27
10267	May 5	42 38 N. 69 36 W.	} Basin, offing of Cape Ann.....	260	6.59	34.02	26.72
				0	6.10	33.03	26.00
				50	5.00	33.15	26.23

TABLE 9.—*Grampus stations, 1915*—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10268	May 5	42° 51' N. 68° 43' W.	Center of gulf near Cashess Ledge.....	0	6.10	32.79	25.82
				50	4.78	32.81	25.98
				100	4.47	33.04	26.20
				190	5.60	33.53	26.46
10269	May 6	43° 04' N. 67° 56' W.	Central part of basin.....	0	4.40	32.50	25.78
				50	4.28	32.68	25.93
				100	4.44	32.95	26.13
				185	5.82	33.22	26.19
10270	do	43° 14' N. 67° 07' W.	East side of basin.....	0	3.60	31.78	25.29
				50	3.04	32.03	25.53
				100	3.90	32.86	26.12
				190	5.95	33.58	26.46
10271	May 7	43° 26' N. 66° 28' W.	German Bank.....	0	3.00	31.89	25.42
				35	3.24	31.94	25.44
				70	3.27	31.94	25.43
10272	May 10	43° 52' N. 66° 41' W.	Near Lurcher Shoal.....	0	3.90	32.05	25.47
				50	3.42	32.09	25.55
				90	3.60	32.30	25.70
10273	do	44° 05' N. 67° 32' W.	Northeast part of basin, offing of Frenchmans Bay.....	0	4.70	32.23	25.54
				50	4.81	32.57	25.80
				100	5.10	33.03	26.12
				150	4.98	33.28	26.34
				225	6.28	33.66	26.48
10274	do	44° 13' N. 67° 51' W.	10 miles off Petit Manan Island.....	0	4.20	32.20	25.70
				80	3.97	32.23	25.62
10275	May 11	44° 09' N. 68° 09' W.	5 miles east of Great Duck Island.....	0	4.40	31.51	25.00
10276	May 12	43° 44' N. 68° 50' W.	Offing of Penobscot Bay, close to Matinecus Rock.....	0	5.00	31.80	25.17
				40	4.22	32.34	25.67
				80	4.22	32.43	25.75
10277	May 13	43° 32' N. 69° 46' W.	Offing of Casco Bay.....	0	7.80	29.58	23.08
				50	4.18	32.38	25.70
				95	4.15	32.45	25.76
10278	May 14	43° 00' N. 70° 12' W.	Trough between Isles of Shoals and Jeffreys Ledge.....	0	7.80	32.03	25.00
				50	4.04	32.63	25.92
				100	3.45	32.70	26.03
				175	3.70	32.94	26.19
10279	May 26	42° 17' N. 70° 07' W.	Mouth of Massachusetts Bay, off northern Cape Cod.....	0	10.00	31.89	24.55
				40	5.20	32.68	25.84
				70	3.82	32.68	25.98
10280	May 31	43° 45' N. 69° 32' W.	6 miles off Pemaquid Point.....	0	6.90	31.56	24.75
				25	5.56	31.83	25.13
10281	June 4	44° 48' N. 66° 55' W.	Grand Manan Channel.....	0	4.40	31.82	25.24
				40	4.63	31.82	25.21
				80	4.58	31.83	25.24
10282	June 10	44° 25' N. 66° 32' W.	Bay of Fundy Deep between Grand Manan and Brier Island.....	0	6.40	31.89	25.07
				50	5.71	32.41	25.57
				100	5.20	32.83	25.96
				180	5.25	33.06	26.13
10283	do	44° 15' N. 67° 23' W.	Northeast part of basin in offing of Machias, Me.....	0	5.40	31.98	25.26
				50	5.27	32.55	25.77
				100	5.00	32.70	25.87
				180	3.54	33.06	26.78
10284	June 11	44° 09' N. 67° 54' W.	12 miles off Petit Manan Island.....	0	5.40	32.07	25.34
				40	5.11	32.21	25.48
				80	5.14	32.45	25.67
10285	June 14	44° 09' N. 68° 09' W.	5 miles east of Great Duck Island, off Mount Desert Island.....	0	8.00	31.76	24.76
10286	do	43° 59' N. 68° 15' W.	Off Mount Desert Island.....	0	7.50	32.16	25.14
				40	5.44	32.30	25.51
				80	5.18	32.41	25.62

<sup>1</sup> Approximate.

TABLE 9.—“Grampus” stations, 1915—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10287	June 14	43 44 N. 68 50 W.	Offing of Penobscot Bay close to Matinicus Rock	0	7.80	31.94	24.92
				35	5.83	32.16	25.31
				70	4.66	32.36	25.64
10288	June 19	43 28 N. 67 30 W.	Eastern side of basin	0	9.70	32.41	25.00
				50	5.60	32.50	25.65
				100	4.86	33.06	26.17
				150	5.60	33.40	26.40
				220	6.21	33.95	26.71
10289	do	43 27 N. 66 51 W.	do	0	7.80	32.25	25.16
				50	5.90	32.66	25.74
				100	5.70	33.24	26.22
				150	5.87	33.48	26.39
10290	do	43 24 N. 66 22 W.	German Bank	0	6.10	32.07	25.25
				25	5.90	32.09	25.29
				60	5.85	32.12	25.33
10291	June 23	43 29 N. 65 08 W.	Profile off Shelburne, Nova Scotia	0	8.90	30.93	23.96
				30	3.47	31.36	24.95
				75	0.96	31.92	25.58
10292	do	43 19 N. 64 59 W.	do	0	8.66	31.33	24.32
				50	0.70	31.83	25.53
				75	0.70	32.12	
				100	2.02	32.68	26.13
				150	4.32		
10293	do	42 59 N. 64 43 W.	do	0	10.00	31.36	24.13
				40	1.54	31.91	25.53
				85	1.60	32.50	26.03
10294	do	42 36 N. 64 27 W.	do	0	9.70	31.06	23.95
				40	2.85	31.83	25.38
				80	2.12	32.79	26.22
				120	7.50	34.34	26.85
				170	8.28	34.67	26.99
10295	June 24	42 22 N. 64 16 W.	do	0	11.10	32.39	24.75
				80	3.63	34.27	27.22
				200	8.15	34.97	27.25
				300	7.30	34.94	27.35
				500	4.91	34.94	27.66
10296	do	42 28 N. 65 37 W.	Browns Bank	0	10.00	31.44	24.20
				40	2.80	32.29	25.76
				80	7.36	33.49	26.20
10297	June 25	42 17 N. 66 03 W.	Eastern channel between Browns and Georges Banks	0	10.00	32.56	25.06
				40	8.20	33.31	25.94
				100	8.14	34.18	26.62
				150	7.72	34.67	27.08
				225	7.20	34.92	27.35
10298	do	42 26 N. 67 45 W.	Southeast part of basin, north of Georges Bank	0	12.50	32.56	24.62
				50	5.18	32.59	25.76
				100	5.02	33.04	26.14
				150	5.68	33.48	26.41
				225	6.91	34.60	27.14
10299	June 26	42 32 N. 69 14 W.	Western side of basin in offing of Cape Ann	0	13.60	32.50	24.36
				50	6.22	33.04	26.00
				100	4.60	33.08	26.22
				210	5.67	33.82	26.68
10300	July 7		Close to Race Point, Cape Cod	0	16.00	31.40	22.87
				50	6.70	32.20	25.27
10301	July 15	44 31 N. 67 24 W.	4 miles south 24° west of Libby Island at mouth of Machias Bay.	0	8.90	31.58	24.48
				60	7.16	32.03	25.09
10302	July 19	44 08 N. 68 15 W.	1 mile south of Great Duck Island, off Mount Desert Island.	0	11.60	31.83	24.24
				20	7.97	31.98	24.93
				45	7.24	32.16	25.18
10303	Aug. 4	43 46 N. 69 23 W.	3 miles west of Monhegan Island	0	11.60	31.87	24.27
				35	8.01	32.14	25.02
				75	5.96	32.41	25.54

TABLE 9.—"Grampus" stations, 1915—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10304	Aug. 6-7	43 32 N. 67 35 W.	Eastern side of basin.....	0	11.40	32.63	24.89
				50	8.26	32.67	25.42
				100	6.22	33.12	26.06
				150	4.78	33.73	26.71
				200	6.89	34.16	27.15
10305	Aug. 18	44 08 N. 68 15 W.	1 mile south of Great Duck Island, off Mount Desert Island.	0	10.80	31.04	24.45
				25	9.37	32.05	24.77
				50	8.70	32.34	25.09
10306	Aug. 31	42 31 N. 70 19 W.	Mount of Massachusetts Bay, off Gloucester.....	0	16.10	31.24	22.89
				50	7.24	32.30	25.35
				100	5.97	32.50	25.60
10307	do	42 40 N. 69 34 W.	Basin, offing of Cape Ann.....	140	6.78	32.57	25.68
				0	17.60	32.47	23.39
				50	7.77	32.81	25.61
10308	Sept. 1	42 52 N. 68 40 W.	Near Cashes Ledge.....	100	5.01	33.12	26.20
				150	5.10	33.28	26.32
				200	5.70	33.75	26.62
				235	6.36	34.23	26.92
10309	do	43 08 N. 67 52 W.	Central part of basin.....	0	15.80	32.52	23.88
				50	9.02	32.56	25.25
				90	6.36	33.03	25.87
				165	5.63	33.69	26.68
10310	Sept. 2	43 15 N. 67 03 W.	Eastern side of basin.....	0	15.50	32.47	23.99
				50	9.44	32.66	25.23
				100	5.72	33.10	26.11
				150	5.77	33.60	26.50
10311	do	43 22 N. 66 17 W.	German Bank.....	210	5.98	33.60	26.47
				0	13.30	32.41	24.42
				50	7.05	32.88	25.76
				100	5.66	33.26	26.25
10312	do	43 14 N. 65 37 W.	9 miles off Cape Sable.....	190	7.10	34.35	26.90
				0	9.40	32.23	24.95
				30	10.28	32.47	24.95
				65	10.10	32.56	25.05
10313	Sept. 6	43 28 N. 65 06 W.	11 miles off Cape Roseway, Nova Scotia.....	0	13.30	31.49	23.64
				25	9.40	31.73	24.51
				50	7.38	32.00	25.02
10314	do	43 20 N. 64 59 W.	21 miles off Cape Roseway, Nova Scotia.....	50	15.00	30.70	22.68
				70	3.38	30.73	24.47
				50	3.33	32.16	25.62
				70	2.22	32.43	25.92
10315	Sept. 7	43 49 N. 66 44 W.	Near Lurcher Shoal.....	0	15.00	31.22	23.08
				25	7.89	31.82	24.82
				50	3.30	32.34	25.75
				75	4.95	33.01	26.12
10316	Sept. 11	44 32 N. 67 22 W.	2 miles south of Libby Island at the mouth of Machias Bay.	100	5.00	33.12	26.26
				150	5.05	33.40	26.42
				0	12.20	32.88	24.93
10317	Sept. 15	44 05 N. 68 26 W.	3 miles south of Swans Island, Maine.....	50	11.20	33.19	25.35
				60	10.00	33.42	25.74
				0	10.28	32.30	24.82
10318	Sept. 16	43 43 N. 69 17 W.	4 miles southeast of Monhegan Island.....	0	9.95	32.43	24.97
				28	11.60	32.50	24.74
				0	13.60	32.30	24.20
10319	Sept. 20	43 28 N. 70 16 W.	3 miles off Wood Island, Maine.....	35	10.10	32.27	24.83
				70	8.61	32.56	25.28
				0	15.50	31.22	23.08
10320	Sept. 29	43 25 N. 70 33 W.	Massachusetts Bay, 11 miles off Gloucester Harbor mouth.	25	10.50	31.83	24.41
				50	8.50	32.12	24.96
				0	10.50	31.91	24.48
				35	10.70	31.96	24.50
				70	7.00	32.30	25.31

<sup>1</sup> Approximate only.

TABLE 9.—“Grampus” stations, 1915—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10321	Sept. 29	42 10 N. 70 22 W.	Mouth of Massachusetts Bay, 8 miles off Race Point, Cape Cod.	0	11.40	31.73	24.19
				20		31.83	±24.19
				40	11.22		
10322	Oct. 1	42 04 N. 70 16 W.	Close to Race Point, Cape Cod.	0	13.40	31.38	23.54
				25	12.95	31.60	23.80
10323	do	42 17 N. 70 07 W.	Mouth of Massachusetts Bay, off Cape Cod.	0	11.40	32.07	24.45
				40	11.00	32.25	24.66
				80	6.00	33.06	26.03
10324	do	42 31 N. 70 19 W.	Mouth of Massachusetts Bay, off Gloucester	0	10.30	32.21	24.75
				40		32.25	
				80	7.11	32.50	25.45
				120	17.20	32.57	25.50
10325	Oct. 4	43 00 N. 70 12 W.	Trough between Isles of Shoals and Jeffreys Lodge	0	11.60	32.21	24.53
				50	7.33	32.39	25.35
				100	6.40	32.81	25.79
				175	5.28	33.22	26.26
10326	do	43 24 N. 69 53 W.	17 miles off Cape Elizabeth	0	11.90	32.41	24.63
				50	7.61	32.90	25.70
				100		32.90	
10327	Oct. 9	44 32 N. 67 20 W.	2 miles south of Libbey Island, at the mouth of Machias Bay.	0	9.40	32.75	25.32
				30		32.74	
				60	9.83	32.77	25.26
10328	do	44 06 N. 68 14 W.	3 miles south of Great Duck Island, off Mount Desert Island.	0	9.40	32.66	25.24
				30		32.70	
				60	10.10	32.79	25.24
10329	do	43 44 N. 68 51 W.	Offing of Penobscot Bay, close to Matinicus Rock	0	10.00	32.47	25.00
				30	10.30	32.56	25.02
				60	8.95	32.84	25.40
10330	Oct. 18	42 34 N. 70 37 W.	2 miles eastward of Eastern Point, Gloucester	0	11.40	31.80	24.25
10331	Oct. 22	41 19 N. 70 55 W.	On profile off west end of Marthas Vineyard	0	14.40	32.10	23.88
				30	14.50	32.14	23.89
10332	do	40 51 N. 70 55 W.	On profile off west end of Marthas Vineyard	0	13.90	32.32	24.16
				25		32.45	
				50	13.10	32.92	24.78
10333	Oct. 22	40 26 N. 70 56 W.	On profile off west end of Marthas Vineyard	0	13.30	32.65	24.53
				25	13.20	32.74	24.62
				50		32.97	
				80	11.89	33.68	25.01
10334	do	40 09 N. 71 00 W.	do	0	15.50	33.86	25.00
10335	Oct. 25	41 26 N. 70 17 W.	Vineyard Sound	0	13.00	32.09	24.16
10336	Oct. 26	41 42 N. 69 53 W.	About 3 miles off Chatham, Cape Cod.	0	10.50	32.00	24.55
				25		32.03	
10337	do	42 05 N. 70 18 W.	Mouth of Massachusetts Bay, 3 miles off Race Point, Cape Cod.	0	11.10	31.89	24.36
				30		31.94	
				60	10.39	32.14	24.68
10338	Oct. 27	42 19 N. 70 30 W.	Mouth of Massachusetts Bay, midway between Cape Cod and Gloucester.	0	11.00	31.82	24.32
				40	9.40	32.20	24.89
10389	do	42 31 N. 70 36 W.	Mouth of Massachusetts Bay, 5 miles off Gloucester Harbor mouth.	0	10.80	31.91	24.43
				35		32.20	
				70	7.28	32.43	25.38

<sup>1</sup> Approximate only.

TABLE 10.—“*Grampus*” stations, 1916

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10340	July 19	{42 32 N. 78 38 W.}	Mouth of Massachusetts Bay, 3 miles off mouth of Gloucester Harbor.	0	11.95	31.18	23.66
				25	6.49	31.87	25.04
				50	5.19	32.00	25.29
10341	do	{42 18 N. 70 27 W.}	Mouth of Massachusetts Bay, midway between Gloucester and Cape Cod.	0	16.39	30.48	22.22
				25	5.08	32.03	25.33
				50	3.90	32.20	25.59
10342	do	{42 07 N. 70 17 W.}	Mouth of Massachusetts Bay, 4 miles off Race Point, Cape Cod.	0	17.22	30.61	22.13
				30	7.73	31.58	24.65
				60	6.14	31.87	25.08
10344	July 22	{42 07 N. 69 59 W.}	Offing of northern Cape Cod	0	15.83	30.75	22.55
				25	4.91	32.10	25.41
				50	4.07	32.20	25.58
10345	do	{41 52 N. 69 40 W.}	Offing of Chatham, Cape Cod	0	10.00	31.53	24.27
				50	4.17	32.25	25.61
				100	3.85	32.06	25.96
10346	do	{41 27 N. 69 22 W.}	Offing of southern angle of Cape Cod	0	7.22	32.03	25.07
				30	6.41	32.07	25.21
				60	4.47	32.38	25.68
10347	July 23	{41 06 N. 68 51 W.}	Northwest side of Georges Bank	0	11.39	32.54	24.81
				30	9.61	32.14	24.81
10348	do	{40 49 N. 68 21 W.}	West side Georges Bank	0	11.67	32.54	24.75
				25	11.34	32.57	24.86
				50	11.26	32.57	24.86
10349	July 24	{40 15 N. 68 05 W.}	Southwest slope of Georges Bank	0	17.50	32.47	23.40
				30	10.36	33.86	25.33
				80	7.16	32.47	25.01
				130	6.75	34.42	27.01
				180	6.72	34.83	27.34
10351	do	{40 06 N. 68 57 W.}	do	0	15.56	32.47	23.03
				30	10.66	33.42	26.95
				80	4.82	34.20	27.20
				130	5.88	34.20	26.95
				180	7.13	34.72	27.20
10352	do	{40 00 N. 68 44 W.}	Continental slope southwest of Georges Bank	0	16.95	32.47	23.61
				50	4.85	33.08	26.19
				100	7.65	34.36	26.86
				200	7.65	34.92	27.23
				300	5.75	34.87	27.51
				400	5.15	34.87	27.57
10353	July 25	{40 14 N. 69 08 W.}	Profile running southeasterly from Marthas Vineyard	0	15.00	32.47	23.61
				30	13.01	32.27	24.18
				70	8.71	32.63	25.33
10354	do	{40 26 N. 69 24 W.}	do	0	6.07	32.86	25.88
				30	11.95	31.73	24.08
				70	10.97	32.14	24.57
10355	do	{40 43 N. 69 53 W.}	do	0	16.11	31.78	23.29
				30	12.14	32.14	24.36
				70	17.78	30.90	22.19
10356	July 26	{41 11 N. 70 44 W.}	do	0	14.28	31.58	23.52
				25	16.95	31.27	22.70
				43	7.89	31.89	24.97
10357	do	{42 10 N. 70 09 W.}	Off northern Cape Cod	0	4.91	32.05	25.57
				20	10.00	31.71	24.41
				43	9.18	31.91	24.69
10390	Oct. 31	{42 30 N. 70 21 W.}	Mouth of Massachusetts Bay, off Gloucester	0	6.43	32.41	25.47
				30	5.43	32.56	25.71
				60	5.43	32.56	25.71
				90	5.23	32.59	25.76
				120	5.23	32.59	25.76

<sup>1</sup> These two water samples probably were transposed.

TABLE 10.—“Grampus” stations, 1916—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10400	Nov. 1	42 58 N. 70 14 W.	Trough between Isles of Shoals and Jeffreys Ledge	0	9.72	32.03	24.71
				30	8.21	32.09	24.98
				60	7.07	32.45	25.42
				90	4.84	32.57	25.79
				130	4.41	32.81	26.03
10401	do	42 37 N. 69 46 W.	Basin in offing of Cape Ann	0	10.56	31.98	24.54
				50	8.90	32.30	25.04
				100	4.24	32.65	25.91
				150	4.53	32.99	26.16
				200	4.99	33.53	26.53
10402	Nov. 2	43 37 N. 69 15 W.	9 miles off Monhegan Island	0	8.33	32.36	25.18
				25	8.89	32.34	25.07
				55	8.19	32.56	25.36
				85	6.59	32.78	25.74
				135	4.97	32.90	26.03
10403	Nov. 8	42 16 N. 70 12 W.	Mouth of Massachusetts Bay, off Cape Cod	0	9.17	31.87	24.66
				30	8.39	32.07	24.94
10404	do	41 53 N. 69 37 W.	Offing of southern Cape Cod	0	10.28	32.01	24.60
				50	8.04	32.18	25.07
				100	4.85	32.88	26.06
				175	4.78	33.15	26.26
10405	Nov. 10	41 17 N. 71 03 W.	On profile running southwesterly from offing of Buzzards Bay.	0	11.95	32.05	24.31
				30	12.52	32.06	24.23
10406	Nov. 11	40 37 N. 71 19 W.	do	0	11.67	32.23	24.52
				30	11.85	32.36	24.59
				60	9.98	32.54	25.07
10407	do	40 03 N. 71 43 W.	do	0	11.28	32.54	24.83
				30	11.85	32.56	24.74
				60	13.08	33.15	24.96
				90	7.72	32.88	
10408	do	39 52 N. 71 47 W.	do	0	11.39	32.59	24.86
				25	12.05	32.63	24.76
				50	14.0	33.71	25.21
				100	9.26	34.01	26.04
				180	10.23	35.00	26.93

TABLE 11.—“Halcyon” stations, 1920

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10488	Dec. 29	42 27 N. 70 43 W.	Massachusetts Bay, off Boston Harbor	0	3.89	31.82	25.29
				20	4.48	31.92	25.32
				40	5.32		
				60	5.86	32.30	25.54
10489	do	42 30 N. 70 17 W.	Mouth of Massachusetts Bay, off Gloucester	0	5.56		
				40	6.94		
				100	6.97	33.82	26.52
				150	7.00	33.84	26.53
10490	do	42 38 N. 69 33 W.	Basin in offing of Cape Ann	0	6.11	32.76	25.76
				40			
				100		33.53	26.16
				175	5.93	33.73	26.58
				250	5.14	33.85	26.76
10491	Dec. 30	42 00 N. 69 38 W.	Off northern Cape Cod	0	6.67	32.97	25.88
				40	6.32	33.21	
				100	6.92	33.01	
10492	do	42 51 N. 70 46 W.	Off Merrimac River	0	4.00	30.02	23.86
				15	4.72	31.87	25.25
				30	0.80	32.60	25.58

<sup>1</sup>Probably transposed.

TABLE 11.—“Halcyon” stations, 1920—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10493	Dec. 30	42 59 N. 70 10 W.	Trough between Isles of Shoals and Jeffreys Ledge	0	5.83	32.60	25.71
				40	6.38	32.89	25.78
				100	6.95	32.87	25.78
				150	6.95	32.87	25.78
10494	do	43 24 N. 70 09 W.	Off Wood Island, Me.	0	5.56	31.41	24.79
				40	6.23	32.65	25.69
				75	7.31	32.79	25.66
10495	Dec. 31	43 39 N. 69 36 W.	Off Seguin Island	0	5.83	32.60	25.71
				40	6.11	32.74	25.77
				75	6.11	32.77	25.80

TABLE 12.—“Halcyon” stations, 1921

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10496	Jan. 1	43 37 N. 68 44 W.	Offing of Penobscot Bay	0	5.56	32.31	25.50
				40	6.05	32.77	25.81
				100	6.79	32.89	25.80
				150	7.55	33.71	26.35
10497	do	44 05 N. 68 11 W.	5 miles off Great Duck Island, off Mount Desert Island, Me.	0	4.72	32.30	25.59
				40	5.53	32.54	25.68
				90	5.72	32.61	25.72
10498	Jan. 4	44 32 N. 67 13 W.	Off Machlas, Me.	0	5.56		
				40	5.01		
				70	5.01		
10499	do	44 21 N. 66 37 W.	Fundy Deep, between Grand Manan and Brier Island	0	5.56	32.11	
				40	5.98	32.45	
				100	6.03	32.69	
				150	6.65	32.75	
				200	6.90	32.97	
10500	do	43 50 N. 66 52 W.	Off Lurcher Shoal	0	5.83	32.51	25.63
				40	6.17	32.51	25.60
				110	6.72	33.08	25.96
10501	do	43 48 N. 66 18 W.	Off Yarmouth sea buoy, Nova Scotia	0	3.80	31.21	24.81
				20	3.89	31.26	24.85
				40	3.86	31.29	24.87
10502	Jan. 5	44 07 N. 67 22 W.	Eastern part of basin	0	5.50	32.21	25.42
				40	6.74	32.31	25.30
				100	6.59	32.70	25.68
				150	7.22	33.37	26.12
				200	6.92	33.93	26.61
10503	Jan. 9	42 44 N. 69 55 W.	Basin in offing of Cape Ann	0	5.50	32.51	25.68
				40	5.79	32.70	25.79
				100	6.53	32.93	25.86
				150	7.57	33.75	26.36
10504	Feb. 9	42 33 N. 70 39 W.	1½ miles off Eastern Point, Gloucester	0	3.33		
				20	3.52		
				40	3.63		
10505	Mar. 4	42 27 N. 70 44 W.	North side, Massachusetts Bay, off Bakers Island	0	2.22	32.18	25.72
				20	2.37		
				40	2.55	32.39	25.86
10506	do	42 52 N. 70 47 W.	Off Merrimac River	0	1.67	31.54	25.24
				25	1.81	32.08	25.66
10507	do	43 22 N. 70 08 W.	Off Cape Porpoise, Me.	0	2.20	32.35	25.86
				40	3.01	32.47	25.88
				100	3.12	32.47	25.87
10508	do	43 39 N. 69 38 W.	Off Seguin Island	0	1.67	32.32	25.86
				30	2.42	32.30	25.80
				60	2.52	32.41	25.88

TABLE 12—"Halcyon" stations, 1921—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10509	Mar. 5	43 00 N. 70 10 W.	Trough between Isles of Shoals and Jeffreys Ledge-----	0	3.90	32.85	25.79
				40	4.10	32.79	25.73
				100	4.32	32.86	26.07
				175	4.38	32.99	26.17
10510	do	42 42 N. 60 45 W.	Basin in offing of Cape Ann-----	0	3.60	32.49	25.85
				40	3.60	32.47	25.84
				100	4.10	32.65	25.93
				150	5.50	33.12	26.15
				175	6.50		
				225	5.50		
250	4.63	33.99	26.93				
10511	do	42 31 N. 70 18 W.	Mouth of Massachusetts Bay, off Gloucester-----	0	3.61	32.64	25.97
				40	3.84	32.70	26.00
				100	3.85	32.76	26.04
				150	3.86	32.70	26.00

TABLE 13.—"Halcyon" stations in Massachusetts Bay, August, 1922

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
10631	Aug. 22	42 06 00 N. 70 17 00 W.	2½ miles off Race Point, Cape Cod-----	0	17.80	31.29	22.52
				18	13.00	31.61	23.79
				64	6.20	32.18	25.32
10632	do	42 22 00 N. 70 26 00 W.	Stellwagen Bank, midway between Cape Cod and Gloucester.	0	18.00	31.21	22.37
				18	9.20	31.86	24.65
				27	7.70	31.98	24.96
				73	4.50	32.37	25.66
10633	do	42 32 00 N. 70 35 00 W.	Mouth of Massachusetts Bay, 4 miles off Eastern Point, Gloucester.	0	18.70	30.99	22.05
				9	18.60	31.00	22.09
				27	8.40	31.96	24.85
				55	5.40	32.23	25.46
10636	Aug. 24	42 30 00 N. 70 46 00 W.	Near Halfway Rock, off Marblehead-----	0	15.80	31.09	22.81
				11	11.30	31.53	24.05
				27	7.00	31.99	25.07
10637	do	42 28 30 N. 70 53 30 W.	Near Egg Rock, off Nahant-----	0	15.30		
				18	9.80		
10638	do	42 23 00 N. 70 48 00 W.	Off Boston Harbor-----	0	17.50	30.95	22.33
				27	8.80	31.87	24.73
10639	do	42 16 30 N. 70 47 00 W.	Off Minots Light-----	0	16.00	31.02	22.50
				15	13.90	31.20	23.30
10640	do	42 16 30 N. 70 35 00 W.	Off Scituate-----	0	18.40	31.04	22.15
				15	16.10	31.35	22.88
				51	5.60	32.25	25.45
10641	do	42 07 00 N. 70 38 00 W.	Off Brant Rock-----	0	17.80	31.04	22.31
				15	10.30		
10642	do	41 56 30 N. 70 32 00 W.	Off Manomet-----	0	16.10	31.10	22.76
				18	13.20		
10643	do	41 46 30 N. 70 26 30 W.	Cape Cod Bay, off Sandwich-----	0	17.80	30.97	22.26
				15	12.10	31.38	23.80
10644	do	41 46 00 N. 70 16 30 W.	Cape Cod Bay, off Barnstable Harbor-----	0	18.30	30.97	22.11
				13	17.90		
10645	do	41 58 00 N. 70 21 00 W.	Midway between Provincetown and Plymouth-----	0	18.10	31.06	22.26
				13	17.90		
				42	7.20	31.95	25.02

TABLE 14.—"Halcyon" stations, 1923-1924

Station	Date	Position	General locality	Depth	Temperature
10646	Apr. 18, 1923	42 17 00 N. 70 29 00 W.	} Mouth of Massachusetts Bay.....	0	2.80
				37	1.60
				80	.32
10647	---do---	41 55 00 N. 69 50 00 W.	} Off Nauset, Cape Cod.....	0	2.80
				27	2.00
				64	2.20
10647	Apr. 27, 1923		Rose and Crown Shoal.....	0	3.30
10648	Aug. 5, 1923	44 11 00 N. 68 09 00 W.	} Off Bakers Island, near Mount Desert.....	0	11.70
				27	7.44
				55	6.88
10649	Aug. 6, 1923	43 52 00 N. 67 54 00 W.	} Off Mount Desert Rock.....	0	12.80
				37	7.58
				91	4.40
				128	4.78
				165	5.36
10650	Aug. 7, 1923	43 32 00 N. 70 11 00 W.	} Whistle Buoy, off Cape Elizabeth.....	0	16.10
				27	9.86
				46	6.85
10651	---do---	43 18 00 N. 69 44 00 W.	} 25 miles off Cape Elizabeth.....	0	18.10
				37	4.28
				73	3.55
				118	3.45
10652	Aug. 9, 1923	42 30 00 N. 70 17 30 W.	} Off Gloucester.....	0	17.20
				46	4.99
				82	3.09
				118	2.90
				155	2.97
10653	Mar. 19, 1924	42 27 00 N. 70 36 00 W.	} 8 miles off Eastern Point, Gloucester.....	0	2.20
				18	1.80
				37	1.79
				73	1.77
10654	June 6, 1924	42 27 00 N. 70 36 00 W.	} ---do---	0	10.60
				18	6.25
				37	3.58
				55	3.13
				73	3.13
10655	July 12, 1924	42 26 30 N. 70 37 00 W.	} ---do---	0	16.70
				18	6.80
				37	4.60
				73	3.84
10656	July 15, 1924	41 22 00 N. 69 32 00 W.	} Nantucket Shoals.....	0	10.00
				9	10.50
				18	10.50
				27	10.40
10657	Aug. 5, 1924	44 04 00 N. 68 07 15 W.	} 7 miles off Great Duck Island, Mount Desert.....	0	10.80
				18	7.43
				37	6.91
				55	6.17
				91	5.57
10658	Aug. 23, 1924	42 26 30 N. 70 36 15 W.	} 8 miles off Eastern Point, Gloucester.....	0	15.60
				18	12.50
				40	5.48
				73	3.98
10659	Sept. 6, 1924	42 26 30 N. 70 37 00 W.	} ---do---	0	15.60
				18	12.32
				37	6.45
				73	4.34
10660	Sept. 18, 1924	42 53 00 N. 70 19 30 W.	} Jeffreys Ledge.....	0	14.40
				55	7.05
10661	Sept. 24, 1924		} 1½ miles east-southeast (mag.) from White Island off Boothbay Harbor, Me.	0	11.70
				24	10.65
10662	Sept. 29, 1924	44 04 00 N. 68 07 00 W.	} 7 miles off Great Duck Island, off Mount Desert.....	0	10.80
				18	9.80
				37	8.70
				55	8.98
				91	8.18

TABLE 14.—“Halcyon” stations, 1923-1924—Continued

Station	Date	Position	General locality	Depth	Temperature
10608	Oct. 3, 1924	° ' "	} ½ mile northeast (mag.) from Little Duck Island, off Mount Desert, Me.	0	11.70
				27	10.08
10609	Oct. 15, 1924	{ 42 26 30 N. 70 37 00 W. }	} 8 miles south (mag.) from Eastern Point, Gloucester.....	0	11.70
				18	11.40
				37	10.08
				73	6.76

TABLE 15.—Ice Patrol stations, 1919 (from Coast Guard Bulletin No. 11, 1924)

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
1	Mar. 28	{ 42 06 N. 69 52 W. }	} Offing of northern Cape Cod .....	0	4.50	32.43	25.71
				27	3.65	32.29	25.68
				55	2.90	32.48	25.90
				77	3.75	32.61	25.93
				101	3.80	32.66	25.97
2	Mar. 29	{ 42 23 N. 69 03 W. }	} .....do.....	0	4.70	32.72	25.92
				40	3.90	32.68	25.98
				80	3.05	32.66	26.03
				121	4.45	32.77	26.00
				161	5.25	33.46	26.45
3	do	{ 42 51 N. 67 32 W. }	} East-central part of gulf .....	0	0.00	31.87	25.60
				55	3.70	32.62	25.95
				110	4.75	33.58	26.60
				165	4.75	33.84	26.80
				216	4.75		
19	April 28	{ 42 06 N. 69 52 W. }	} Offing of northern Cape Cod.....	0	4.70	31.29	24.79
				27	5.15	31.71	25.07
				64	3.75	31.76	25.26
				101	3.75	32.09	25.52
20	do	{ 42 23 N. 69 03 W. }	} .....do.....	0	4.90	(1)	
				37	4.85		
				73	4.85		
				110	4.80		
				146	4.35		
21	do	{ 42 51 N. 67 32 W. }	} East-central part of gulf .....	0	4.60	31.98	25.35
				55	3.65	32.38	25.76
				110	4.45	32.92	26.11
				165	4.40		
				220			
22	do	{ 43 17 N. 66 20 W. }	} German Bank.....	0	2.70	31.71	25.30
				18	2.90	31.71	25.29
				37	2.70		
				55	2.75	31.71	25.30
35	May 29	{ 42 06 N. 69 52 W. }	} Offing of northern Cape Cod.....	0	9.30	31.53	24.37
				35	6.05	31.80	25.05
				70	4.30	32.02	25.41
				104	4.00	32.48	25.80
				139	4.05	32.68	25.96
36	do	{ 42 23 N. 69 03 W. }	} .....do.....	0	9.00	31.80	24.63
				55	4.60	33.16	26.28
				110	4.75	33.10	26.27
				165	5.40	33.48	26.44
				220	5.60	33.91	26.76
37	do	{ 42 51 N. 67 32 W. }	} East-central part of basin.....	0	7.80	31.96	24.94
				60	4.30	32.49	25.78
				121	4.95	33.50	26.51
				181	6.06	34.29	27.01
				242	0.15		
38	May 30	{ 43 17 N. 66 20 W. }	} German Bank.....	0	4.20	31.67	25.14
				27	4.20	31.71	25.17
				55	4.20	31.76	25.21
				82		31.80	

<sup>1</sup> Salinities for this station are omitted because irregular. They are given in U. S. Coast Guard Bulletin 11, 1924, p. 104.

TABLE 16.—"Albatross" stations, 1920

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
20044	Feb. 22	40 07 N. 68 03 W.	Continental slope southwest of Georges Bank	0	4.44		
				50	9.76	34.45	26.61
				100	12.39	35.18	26.67
				200	12.39	35.27	26.73
				300	10.91	35.32	27.06
				500	7.24	35.00	27.41
				1000	4.21	34.90	27.70
				1800	3.92	34.92	27.75
20045	do	40 18 N. 68 09 W.	Southwestern slope of Georges Bank	0	5.00	32.34	25.59
				20	4.59	32.92	26.09
				50	9.40	34.42	26.81
				100	12.35	35.34	26.79
				150	11.55	35.25	26.89
20046	do	40 38 N. 68 21 W.	Southwestern part of Georges Bank	0	5.00	32.34	25.59
				10	3.37	32.38	25.78
				40	4.56	32.77	25.98
				50	7.11		
				70	8.03		
20047	Feb. 23	41 08 N. 68 35 W.	Western part, Georges Bank	0	4.44	32.39	25.69
				20		32.38	
				50		32.47	
20048	do	41 41 N. 68 49 W.	Southwest part of basin, north of Georges Bank	0	3.33	32.47	25.86
				20	3.48	32.47	25.85
				50	3.49	32.47	25.88
				75	3.55	32.43	25.81
				100	3.54	32.49	25.86
				160	4.87	32.97	26.10
20049	do	42 30 N. 69 35 W.	Basin in offing of Cape Ann	0	3.33	32.52	25.93
				20	2.79	32.51	25.94
				50	2.79	32.52	25.95
				100	3.04	32.54	25.94
				150	5.06	33.40	26.37
				200	5.63	33.78	26.68
20050	Mar. 1	42 30 N. 70 18 W.	Mouth of Massachusetts Bay off Gloucester	0	2.50	32.35	25.83
				20	1.95	32.34	25.87
				40	1.89	32.36	25.89
				100	1.52	32.34	25.90
				150	1.68	32.39	25.94
20951	Mar. 1-2	42 31 N. 70 09 W.	Mouth of Massachusetts Bay	(1)			
20052	Mar. 2	42 43 N. 68 41 W.	Near Cashes Ledge	0	2.62	32.49	25.94
				20	2.24	32.52	26.00
				40	2.48	32.52	25.98
				100	2.47	32.52	25.98
				150	3.60	32.66	25.97
				200	5.24	33.44	26.43
20053	Mar. 3	42 45 N. 67 28 W.	Southeast part of basin	0	2.78	32.54	25.97
				20	2.20	32.59	26.06
				40	2.34	32.57	26.02
				100	2.28	32.61	26.05
				150	4.96	33.87	26.81
				225	5.39	34.36	27.15
20054	do	43 15 N. 67 45 W.	Basin in offing of Mount Desert Rock	0	2.50	32.41	25.88
				20	1.84	32.39	25.92
				40	1.84	32.39	25.92
				100	1.77	32.41	25.94
				175	5.40	33.75	26.67
				250	5.48	34.00	26.82
20055	do	43 42 N. 67 55 W.	19 miles off Mount Desert Rock	0	2.50	32.38	25.86
				20	1.85	32.39	25.92
				40	1.82	32.41	25.93
				100	4.39	33.16	26.30
				150	5.46	33.77	26.64
				220	5.59	33.91	26.74
20056	do	44 05 N. 68 08 W.	6 miles off Great Duck Island, off Mount Desert Island	0	1.15	32.21	25.82
				20	0.50	32.29	25.91
				40	0.49	32.23	25.87
				100	1.95	32.48	25.97

<sup>1</sup> Current station, see U. S. Bureau of Fisheries, 1921, p. 156.

TABLE 16.—“Albatross” stations, 1920—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density				
20057	Mar. 4	43 21 N. 68 58 W.	Offing of Penobscot Bay	0	2.22	32.39	25.89				
				20	1.91	32.40	25.93				
				40	1.91	32.41	25.93				
				75	1.89	32.41	25.93				
				125	2.00	32.43	25.94				
20058	do	43 41 N. 69 38 W.	Near Seguin Island	0	1.39	31.31	25.09				
				15	0.68	32.00	25.67				
				45	1.43	32.34	25.90				
20059	do	43 25 N. 70 12 W.	6 miles off Wood Island, Me	0	1.11	32.09	25.72				
				20	0.47	32.10	25.77				
				40	0.61						
20060	do	43 02 N. 70 27 W.	10 miles off mouth of Portsmouth Harbor, N. H.	0	1.39	32.28	25.86				
				20	1.25	32.27	25.86				
				40	1.28	32.30	25.88				
				90	1.15	32.30	25.89				
20061	Mar. 5	43 00 N. 70 11 W.	Trough between Isles of Shoals and Jeffreys Ledge	0	1.30	32.2					
				20	.85	32.17	25.80				
				40	1.33	32.34	25.91				
				100	1.96	32.41	25.92				
				165	4.29						
20062	do	42 26 N. 70 43 W.	Massachusetts Bay, off Boston Harbor	0	.78	32.14	25.78				
				20	.55						
				50	.33	32.16	25.82				
	do	Mar. 10	42 20 N. 70 40 W.	Central part, Massachusetts Bay	0	1.10	32.00	25.65			
					do	42 17 N. 70 07 W.		0	2.20	32.43	25.92
								do	42 12 N. 69 06 W.		0
20063	Mar. 11	42 06 N. 68 10 W.	Southern side of basin	0	2.61	32.61	25.95				
				15	3.49	32.59	25.95				
				35	3.09	32.66	26.03				
				95	3.05	32.63	26.02				
				140	4.30	33.16	26.31				
20064	do	42 20 N. 67 13 W.	Southeast part of basin north of Georges Bank	190	4.63	34.61	27.44				
				0	8.50	32.84	26.14				
				20	2.80	32.83	26.20				
				40	2.73	32.84	26.26				
				100	3.18	32.95	26.26				
				150	4.26	33.66	26.71				
				200	4.32	34.69	27.52				
20065	do	41 55 N. 66 53 W.	Northeast part, Georges Bank	265	4.24	34.76	27.60				
				330	4.02	34.78	27.63				
				0	3.61	32.63	25.97				
				20	2.97	32.66	26.04				
20066	do	41 34 N. 66 45 W.	East part, Georges Bank	40	2.95	32.65	26.03				
				80	2.73	32.69	26.20				
				0	3.33	32.57	25.94				
				20	2.78	32.61	26.03				
20067	Mar. 12	41 15 N. 66 31 W.	Southeast part, Georges Bank	40	2.73	32.61	26.02				
				70	2.53	32.59	26.02				
				0	3.05	32.68	26.06				
				20	3.07	32.68	26.06				
20068	do	41 02 N. 66 20 W.	Southeast slope of Georges Bank	40	2.83	32.75	26.14				
				90	2.80	32.79	26.17				
				0	3.33	32.65	26.00				
				20	2.90	32.66	26.05				
				40	2.92	32.66	26.05				
20068	do	41 02 N. 66 20 W.	Southeast slope of Georges Bank	100	3.56	32.83	26.13				
				150	4.40	33.86	26.87				
				180	4.92	34.23	27.09				
				190	4.92	34.23	27.09				

TABLE 16.—"Albatross" stations, 1920—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
20069	Mar. 12	40° 47' N. 66° 08' W.	Continental slope southeast of Georges Bank	0	3.33		
				50	3.11	32.79	26.14
				100	7.09	33.86	26.52
				150	7.01	34.63	27.15
				200	5.92	34.67	27.32
				300	4.73	34.67	27.46
				400	4.32	34.71	27.54
20070	Mar. 13	42° 03' N. 66° 15' W.	Northeast edge Georges Bank	500	4.26	34.81	27.62
				1,000	3.77	34.92	27.71
				0	3.05	32.66	26.04
				20	2.78	32.67	26.06
				40	2.74	32.66	26.06
20071	do	42° 19' N. 66° 02' W.	Eastern Channel between Georges and Browns Bank	90	2.59	32.70	26.10
				0	3.33	32.81	26.13
				20	2.90	32.83	26.18
				40	3.15	32.80	26.19
20072	do	42° 36' N. 65° 50' W.	Browns Bank	100	6.48	34.29	26.95
				150	6.85	34.42	27.00
				215	6.84	34.70	27.23
				0	1.95	32.32	25.86
				20	1.88	32.34	25.87
20073	Mar. 17	43° 30' N. 65° 06' W.	On profile running southeasterly from the offing of Shelburne, Nova Scotia.	40	2.14	32.67	26.04
				90	3.40	33.02	26.29
				0	2.22	32.44	25.92
				20	2.10	32.43	25.93
20074	Mar. 19	43° 18' N. 64° 58' W.	do	40	2.10	32.48	25.97
				70	2.52	32.71	26.12
				0	1.39	32.69	25.70
				20	1.24	32.07	25.71
				40	1.10	32.07	25.71
20075	do	42° 55' N. 64° 36' W.	do	100	2.86	32.94	26.26
				150	4.68	33.69	26.70
				0	0.56	31.80	25.53
				20	0.27	31.83	25.56
				40	0.45	31.82	25.54
20076	do	42° 33' N. 64° 30' W.	do	90	3.76	33.21	26.40
				0	1.28	32.06	25.69
				20	0.99	32.08	25.70
				40	1.20	32.20	25.81
				100	7.39		
20077	Mar. 19 20	42° 24' N. 64° 19' W.	Continental slope in offing of Shelburne, Nova Scotia	150	8.61	34.34	26.71
				200	6.20	34.70	26.91
				250	5.40	34.65	27.32
				0	1.67	32.16	25.75
				40	1.29	32.19	25.79
				100	5.82	33.78	26.52
20078	Mar. 20	42° 58' N. 65° 48' W.	Northern Channel between Browns Bank and Cape Sable.	200	7.89	34.85	27.20
				300	6.32	34.85	27.38
				500	4.23	34.83	27.42
				1,000	3.90	34.88	27.72
				0	1.95	32.45	25.95
20079	Mar. 22	44° 21' N. 66° 37' W.	Fundy Deep between Grand Manan and Brier Island	20	1.82	32.45	25.95
				40	2.12	32.43	25.93
				100	2.67	32.72	26.11
				135	4.59	33.58	26.62
20080	do	44° 21' N. 67° 37' W.	11 miles east of Petit Manan Island	0	2.50	32.56	26.00
				20	2.14	32.54	26.01
				40	2.17	32.53	26.01
				100	2.55	32.70	26.10
				150	3.32	33.01	26.29
20081	Mar. 22 23	44° 03' N. 67° 26' W.	Northeast part of basin, in offing of Petit Manan	200	4.29	33.31	26.44
				0	1.39	32.05	25.67
				30	1.26	32.16	25.77
				60	1.43	32.25	25.83
				0	1.95	32.32	25.85
20	1.76	32.32	25.87				
40	1.63	32.36	25.90				
100	2.26	32.59	26.05				
150	5.07	33.67	26.63				
200	5.39	33.84	26.73				

TABLE 16.—“Albatross” stations, 1920—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
20082	Mar. 23	43 54 N. 66 53 W.	Off Lurcher Shoal.....	0	2.67	32.59	26.02
				20	2.35	32.61	26.05
				50	2.52	32.72	26.13
				120	3.35	33.15	26.40
20083	do	43 41 N. 66 21 W.	Off Yarmouth, Nova Scotia.....	0	1.95	32.17	25.73
				20	1.54	32.18	25.77
				40	1.54	32.22	25.79
				65	2.04	32.54	26.02
20084	do	43 18 N. 66 09 W.	Off Cape Sable, Seal Island, Nova Scotia.....	0	2.11	32.16	25.71
				20	1.74	32.16	25.74
20085	do	43 17 N. 66 33 W.	German Bank.....	0	2.50		
				30	2.40	32.63	26.07
20086	do	43 11 N. 67 12 W.	East side of basin.....	70	2.43	32.63	26.00
				0	3.61		
				20	3.40	33.10	26.35
				40	3.39	33.10	26.35
				100	4.29	33.63	26.69
20087	Mar. 24	42 37 N. 69 27 W.	West side of basin, in offing of Cape Ann.....	170	5.01	34.00	26.90
				0	3.05	32.49	25.90
				20	2.74	32.56	25.98
				40	2.74	32.54	25.96
				100	2.80	32.63	26.04
				150	5.37	33.53	26.49
20088	do	42 15 N. 69 54 W.	Off northern Cape Cod.....	200	5.39	34.05	26.90
				250	5.06	34.22	27.05
				0	2.50	32.36	25.85
				20	2.20	32.39	25.90
				40	2.20	32.44	25.93
				100	3.61	32.92	26.19
20089	Apr. 6	42 26 N. 70 43 W.	Massachusetts Bay, off Boston Harbor.....	180	4.97	33.58	26.58
				0	3.05	31.25	24.92
				10	2.39	31.26	24.97
				25	2.31	31.30	25.02
20090	Apr. 9	42 30 N. 70 19 W.	Mouth of Massachusetts Bay, off Gloucester.....	60	1.49	32.31	25.08
				0	3.33	32.36	25.76
				10	2.50	32.34	25.83
				30	2.42	32.34	25.83
				90	2.34	32.47	25.95
20091	do	42 43 N. 70 22 W.	Jeffreys Ledge, off Cape Ann.....	120	2.25	32.48	25.97
				0	3.33	31.97	25.46
				20	2.48	32.08	25.60
20092	do	42 49 N. 70 37 W.	Off Merrimac River.....	60	2.50	32.45	25.91
				0	3.05	31.01	24.72
				20	1.94		
20093	do	42 57 N. 70 07 W.	Western slope of Jeffreys Ledge.....	40	2.45		
				80	2.35		
				0	3.05	31.92	25.45
				20	2.42	32.02	25.58
				40	2.26	32.35	25.85
20094	Apr. 10	43 08 N. 69 40 W.	Platts Bank.....	100	3.59	32.81	26.10
				160	4.29	33.10	26.25
				0	2.78	32.16	25.66
				20	2.34	32.17	25.76
20095	do	43 25 N. 70 12 W.	7 miles off Wood Island, Me.....	40	2.46	32.41	25.89
				90	2.82	32.56	25.97
				0	3.05	30.07	23.57
20096	do	43 40 N. 69 37 W.	Near Seguin Island.....	20	2.71		
				40	2.25	32.50	25.97
				90	2.22		
20096	do	43 40 N. 69 37 W.	Near Seguin Island.....	0	2.78	29.94	23.80
				20	2.02	31.60	25.28
				60	2.39	32.41	25.89

TABLE 16.—"Albatross" stations, 1920—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density	
20097	Apr. { <sup>10</sup> 11	43 19 N. 68 55 W.	} Offing of Penobscot Bay.....	0	3.33	32.43	25.83	
				20	2.40	32.43	25.90	
				40	2.13			
				100	3.46			
				125	4.51	33.26	26.37	
20098	Apr. 11	{ <sup>43</sup> 67	43 N. 55 W.	} Off Mount Desert Rock.....	0	3.05	32.39	25.83
					20	2.33	32.44	25.92
					40	2.53		
					100	3.53		
					150	4.91	33.89	26.84
210	5.28	34.22	27.05					
20099	Apr. 12	{ <sup>44</sup> 67	15 N. 53 W.	} Off Petit Manan Island.....	0	3.61	31.46	25.03
					20	2.23	31.90	25.50
					40	2.34	32.38	25.86
					70	2.60	32.56	25.99
20100	...do...	{ <sup>44</sup> 67	09 N. 26 W.	} Northeast part of basin, in offing of Petit Manan Island.....	0	3.89	32.40	25.82
					15	3.07	32.59	25.98
					35	3.29	32.87	26.18
					95	4.50	33.55	26.60
					145	5.06	33.98	26.89
					195	5.12	34.06	26.95
225	5.14	34.09	26.96					
20101	...do...	{ <sup>43</sup> 66	53 N. 51 W.	} Off Lurcher Shoal.....	0	4.28	32.89	26.10
					20	3.39	32.94	26.22
					40	3.67	33.03	26.27
					100	4.53		
					140	4.71	33.78	26.77
20102	Apr. 13	{ <sup>43</sup> 66	42 N. 21 W.	} Off Yarmouth, Nova Scotia.....	0	3.89	32.36	25.72
					20	3.26		
					40	3.00	32.56	25.96
60	2.83	32.56	25.97					
20103	Apr. 15	{ <sup>43</sup> 66	20 N. 36 W.	} German Bank.....	0	3.89	32.74	26.02
					20	3.35	32.72	26.06
					40	3.44	32.79	26.11
					90	3.46	32.79	26.11
20104	...do...	{ <sup>43</sup> 65	13 N. 59 W.	} South of Blonde Rock, off Cape Sable.....	0	3.05	32.32	25.77
					15	2.80	32.34	25.80
					45	2.83	32.38	25.82
20105	...do...	{ <sup>42</sup> 65	58 N. 53 W.	} Northern Channel, between Cape Sable and Browns Bank.....	0	3.61	32.43	25.80
					20	3.61	32.42	25.80
					35	3.11	32.77	26.12
					95	3.16	32.83	26.16
125	3.15	32.84	26.17					
20106	Apr. 16	{ <sup>42</sup> 66	39 N. 01 W.	} Browns Bank.....	0	3.61	32.72	26.03
					20	3.40	32.74	26.06
					40	3.35	32.73	26.06
					80	3.32	32.75	26.09
20107	...do...	{ <sup>42</sup> 66	19 N. 02 W.	} Eastern Channel, between Browns and Georges Banks.....	0	3.33	32.34	25.75
					20	3.10	32.34	25.77
					40	3.21	32.56	25.94
					100	5.89	33.86	26.68
					170	7.45	34.59	27.05
240	6.07	34.69	27.32					
20108	...do...	{ <sup>41</sup> 66	57 N. 05 W.	} Eastern edge of Georges Bank.....	0	4.17	32.58	25.87
					20	3.62	32.59	25.94
					50	3.08	32.60	25.98
					130	3.75	33.05	26.29
20109	...do...	{ <sup>41</sup> 66	17 N. 09 W.	} Southeast slope of Georges Bank.....	0	4.17	32.65	25.92
					20	3.63	32.66	25.98
					40	3.54	32.65	25.99
					100	4.22	33.46	26.56
					150	6.47	34.52	27.13
20110	...do...	{ <sup>41</sup> 66	38 N. 26 W.	} Eastern part of Georges Bank.....	0	3.89	32.67	25.97
					20	3.54	32.70	26.02
					40	3.42	32.69	26.03
					80	3.59	32.70	26.02

TABLE 16.—“Albatross” stations, 1920—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
20111	Apr. 17	41 09 N. 66 43 W.	Eastern part of Georges Bank	0	4.17	32.60	25.88
				20	3.62	32.61	25.94
				40	3.76	32.61	25.93
				70	3.75	32.64	25.95
20112	do	42 22 N. 67 02 W.	Southeastern part of basin, north of Georges Bank	0	3.61	32.54	25.89
				20	3.39	32.52	25.90
				40	3.26	32.56	25.94
				100	3.15	32.80	26.18
				175	5.22	34.56	27.33
				290	4.66	34.70	27.60
20113	do	42 53 N. 67 37 W.	Central part of basin	0	3.33	32.50	25.88
				20	2.88	32.47	25.90
				40	2.93	32.48	25.90
				100	4.32	33.51	26.59
				230	5.16	34.23	27.07
20114	do	42 41 N. 68 40 W.	Near Cashes Ledge	0	3.33	32.41	25.81
				20	3.28	32.45	25.85
				40	2.91	32.43	25.87
				100	4.12	33.19	26.36
20115	Apr. 18	42 37 N. 69 33 W.	Western side of basin, in offing of Cape Ann	175	4.96	34.18	27.05
				0	3.61	32.45	25.81
				20	3.33	32.48	25.87
				40	3.20	32.47	25.87
				100	3.02	32.80	26.15
20116	do	42 03 N. 69 38 W.	Off Cape Cod Highlands	150	5.38	33.69	26.62
				200	6.36	33.93	26.68
				290	4.92	34.34	27.19
				0	3.61	32.14	25.57
				20	3.60	32.14	25.57
20117	do	42 09 N. 69 58 W.	Off northern Cape Cod	40	3.13	32.16	25.63
				100	3.42	32.79	26.11
				195	4.25	33.91	26.91
				0	3.61	31.87	25.36
20118	Apr. 20	41 51 N. 70 18 W.	Cape Cod Bay	20	3.13	31.86	25.40
				40	3.00	32.08	25.58
				85	3.24	32.78	26.12
				0	4.44	31.55	25.02
20119	do	42 18 N. 70 28 W.	Massachusetts Bay, midway between Cape Cod and Gloucester	15	3.76	31.52	25.07
				28	3.46	31.50	25.08
				0	3.61	31.43	25.01
20120	May 4	42 27 N. 70 25 W.	Mouth of Massachusetts Bay, off Gloucester	20	2.87	31.56	25.18
				40	1.58	32.03	25.65
				90	1.78	32.29	25.84
				0	6.39	29.16	22.93
				5	6.12	29.11	22.93
				10	5.88	29.17	23.00
				15	5.80	29.18	23.00
20121	do	42 27 N. 70 25 W.	do	20	4.67	29.55	23.42
				30	4.52	31.13	24.69
				50	3.96	31.36	24.93
				70	2.72		
				0	5.56	29.08	22.96
				30	3.92	30.99	24.62
				60	2.39	32.24	25.76
20122	May 7-8	42 49 N. 70 37 W.	Off Merrimac River	0	7.22	28.26	22.19
				5	6.54	28.45	22.35
				10	5.61	30.50	24.14
				15	4.42	31.17	24.72
				20	4.18	31.24	24.81
				35	3.10		
				60	3.13	32.17	25.63
20123	May 16	42 28 N. 70 43 W.	Massachusetts Bay, off Boston Harbor	65	2.43	32.25	25.76
				85	2.30	32.38	25.86
				0	8.89	29.94	23.20
				20	4.83	30.72	24.30
				55	2.35	32.18	25.73

TABLE 16.—“Albatross” stations, 1920—Continued

Station	Date	Position	General locality	Depth	Temperature	Salinity	Density
20124	May 16	42° 28' N. 70° 18' W.	Mouth of Massachusetts Bay, off Gloucester.....	0	9.72	29.87	23.02
				20	5.12	30.77	24.33
				40	2.89	32.07	25.58
				100	2.65	32.45	26.90
20125	do	42° 00' N. 69° 41' W.	Off Cape Cod highlands.....	0	9.17	30.25	23.40
				20	5.73	32.07	25.30
				40	3.78	32.34	25.71
				100	3.58	32.92	26.20
20126	May 17	41° 39' N. 69° 22' W.	Offing of southern Cape Cod.....	0	8.33	31.53	24.52
				20	5.90	32.10	25.35
				40	4.30	32.54	25.82
				100	3.60	32.81	26.10
20127	do	41° 20' N. 69° 06' W.	Basin east of Nantucket.....	0	7.22	31.89	24.93
				20	5.75	32.24	25.46
				40	4.10	32.88	26.14
				100	3.80	32.98	26.24
20128	do	40° 34' N. 68° 53' W.	33 miles eastward from Nantucket Shoals Lightship.....	0	7.78	32.48	25.85
				20	5.55	32.47	25.63
				40	5.40	32.47	25.66
				70	5.04	32.50	25.71
20129	do	40° 05' N. 69° 04' W.	Continental edge off Nantucket Shoals.....	0	7.78	32.61	25.45
				10	7.56	32.61	25.48
				30	5.30	32.74	25.87
				90	7.32	33.84	26.48
				160	8.24	34.72	26.96

TABLE 17.—“Fish Hawk” stations in Massachusetts and Ipswich Bays, December, 1924, to June, 1925

[For key chart, see Bigelow, 1926, fig. 9]

Station	Position	General locality	Cruise	Date	Depth	Temperature	Salinity	Density
2	42° 12' 00" N. 70° 23' 30" W.	Mouth of the bay, 10 miles off Race Point, Cape Cod.	2	Dec. 11, 1924	0	6.75	-----	-----
					33	6.79	-----	-----
			3	Dec. 16, 1924	66	6.85	-----	-----
					0	5.95	-----	-----
			4	Dec. 22, 1924	2R	5.97	-----	-----
					56	5.95	-----	-----
			5	Jan. 6, 1925	0	4.90	-----	-----
					33	4.62	-----	-----
			6	Feb. 6, 1925	64	4.90	-----	-----
					0	4.05	-----	-----
			7	Feb. 24, 1925	32	4.01	-----	-----
					64	4.15	-----	-----
			8	Mar. 10, 1925	0	2.00	132.87	26.29
					32	1.81	132.90	26.32
			9	Mar. 10, 1925	63	3.10	132.83	26.18
					0	2.10	132.75	26.19
10	Mar. 10, 1925	32	1.83	132.71	26.28			
		64	1.90	133.07	26.46			
11	Apr. 7, 1925	0	2.40	132.94	26.32			
		33	2.14	132.98	26.38			
12	Apr. 22, 1925	65	2.08	133.12	26.50			
		0	6.50	-----	-----			
13	Apr. 22, 1925	13	7.50	-----	-----			
		26	6.55	-----	-----			
14	June 17, 1925	0	4.10	-----	-----			
		30	4.08	-----	-----			
15	June 17, 1925	60	3.40	-----	-----			
		0	5.50	131.71	25.08			
16	June 17, 1925	17	5.49	131.62	24.97			
		33	3.79	132.50	25.83			
17	June 17, 1925	0	8.50	131.47	24.43			
		15	8.14	131.36	24.42			
18	June 17, 1925	30	5.15	131.59	24.94			
		0	12.13	32.38	24.57			
19	June 17, 1925	10	12.05	32.38	24.56			
		20	9.23	32.52	25.03			
20	June 17, 1925	30	5.06	33.17	26.13			

1 From hydrometer reading.

TABLE 17.—“Fish Hawk” stations in Massachusetts and Ipswich Bays, December, 1924, to June, 1925—Continued

Station	Position	General locality	Cruise	Date	Depth	Temperature	Salinity	Density
4	42 05 30 N. 70 17 00 W.	3 miles off Race Point, Cape Cod.	2	Dec. 11, 1924	0	6.70	-----	-----
					31	6.42	-----	-----
					62	6.90	-----	-----
			5	Jan. 6, 1925	0	3.65	-----	-----
					29	3.87	-----	-----
					58	4.05	-----	-----
			6	Feb. 6, 1925	0	0.60	132.61	26.09
					30	0.00	132.61	26.17
					60	1.00	132.74	26.25
			11	Apr. 7, 1925	0	4.40	-----	-----
					30	4.20	-----	-----
					60	3.58	-----	-----
					0	6.00	131.87	25.11
					27	5.20	131.76	25.14
					55	4.18	132.32	25.68
					0	9.80	131.68	24.33
					30	3.83	132.36	25.73
					60	3.20	132.35	25.77
0	14.79	32.30			23.95			
10	14.35	32.30			24.05			
20	7.47	32.81			25.65			
40	3.75	33.24	26.43					
60	3.74	33.24	26.43					
0	5.30	-----	-----					
5	42 00 45 N. 70 11 50 W.	Close to Wood End, Cape Cod.	2	Dec. 11, 1924	20	5.43	-----	-----
					40	5.30	-----	-----
					0	4.60	-----	-----
			3	Dec. 16, 1924	21	4.93	-----	-----
					42	4.25	-----	-----
					0	2.80	-----	-----
			5	Jan. 6, 1925	19	2.85	-----	-----
					39	2.80	-----	-----
					0	0.60	132.43	-----
			6	Feb. 6, 1925	20	0.14	-----	-----
					39	0.10	-----	-----
					0	2.30	132.29	25.94
7	Feb. 24, 1925	22	1.88	132.61	26.09			
		43	2.34	132.09	26.37			
		0	5.20	-----	-----			
6	41 55 39 N. 70 09 30 W.	Cape Cod Bay, off Wellfleet.	3	Dec. 11, 1924	13	5.34	-----	-----
					26	4.70	-----	-----
					0	4.90	-----	-----
			4	Dec. 22, 1924	14	4.55	-----	-----
					28	4.80	-----	-----
					0	2.45	-----	-----
			5	Jan. 6, 1925	12	2.48	-----	-----
					24	2.70	-----	-----
					0	0.20	132.25	25.90
			6	Feb. 6, 1925	18	0.81	132.29	25.89
					16	0.00	132.57	26.16
					0	4.90	-----	-----
11	Apr. 8, 1925	13	4.86	-----	-----			
		26	5.14	-----	-----			
		0	6.80	132.01	25.12			
12	Apr. 22, 1925	15	4.63	-----	-----			
		30	3.79	132.21	25.62			
		0	10.20	131.63	24.31			
13	May 20, 1925	15	9.95	131.65	24.36			
		30	9.88	131.78	24.48			
		0	-0.60	132.62	26.21			
6	Feb. 6, 1925	17	-1.55	132.45	26.12			
		34	-0.40	132.74	26.32			
		0	4.75	131.86	25.34			
6A	41 56 00 N. 70 18 30 W.	Central part, Cape Cod Bay.	11	Apr. 8, 1925	22	4.40	-----	-----
					45	2.86	132.30	25.77
					0	6.60	131.76	24.94
			12	Apr. 22, 1925	17	5.77	131.43	(?)
					35	4.98	131.71	25.09
					0	10.20	131.73	24.39
			13	May 20, 1925	17	-----	131.44	-----
					34	4.62	131.89	25.12
					0	16.01	31.80	23.53
			14	June 16, 1925	10	14.91	32.01	23.71
					20	8.47	32.38	25.71
					34	4.66	32.45	26.18

<sup>1</sup> From hydrometer reading.

TABLE 17.—"Fish Hawk" stations in Massachusetts and Ipswich Bays, December, 1924, to June, 1925—Continued

Station	Position	General locality	Cruise	Date	Depth	Temperature	Salinity	Density			
7	41° 49' 30" N. 70° 11' 15" W.	South side, Cape Cod Bay	2	Dec. 9, 1924	0	6.30					
					6	6.32					
			3	Dec. 11, 1924	12	6.30					
					0	4.25					
			5	Jan. 7, 1925	7	4.43					
					14	4.35					
			6	Feb. 6, 1925	0	0.30					
					6	0.37					
			6	Feb. 6, 1925	13	0.25					
					0	-0.70	132.35	26.02			
			7	Feb. 24, 1925	0	-0.41	132.47	26.11			
					11	-0.60	132.66	26.23			
			8	41° 49' 00" N. 70° 24' 30" W.	Cape Cod Bay, off Sandwich	7	Feb. 24, 1925	0	1.60	132.25	25.82
								6	1.48	132.35	25.91
11	Apr. 8, 1925	12				1.39	132.34	25.90			
		0				5.40					
12	Apr. 23, 1925	6				5.24					
		12				5.26					
13	May 20, 1925	0				6.30					
		6									
13	May 20, 1925	12				6.48					
		0				11.00					
14	June 16, 1925	6				10.96					
		12				10.92					
14	June 16, 1925	0				15.23	32.23	23.81			
		10				15.20	32.38	23.92			
9	41° 53' 15" N. 70° 27' 00" W.	West side, Cape Cod Bay	1	Dec. 3, 1924	0	6.85					
					23	6.80					
			1	Dec. 3, 1924	0	6.93					
					33	6.40					
			2	Dec. 9, 1924	0	6.30					
					14	6.73					
			3	Dec. 16, 1924	28	6.10					
					0	4.90					
			4	Dec. 22, 1924	17	4.93					
					34	4.40					
			4	Dec. 22, 1924	0	4.80					
					17	4.83					
			5	Jan. 7, 1925	34	4.80					
					0	2.15					
6	Feb. 6, 1925	16	2.20								
		32	2.15								
6	Feb. 6, 1925	0	1.90	132.70	26.21						
		15	0.59	132.78	26.34						
10	41° 58' 00" N. 70° 30' 15" W.	Off Manomet, Plymouth, Mass.	1	Dec. 3, 1924	29	0.70	133.19	26.63			
					0	6.74					
			2	Dec. 9, 1924	33	6.80					
					0	6.90					
			3	Dec. 17, 1924	18	6.93					
					36	7.10					
			4	Dec. 22, 1924	0	5.40					
					18	5.47					
			5	Jan. 7, 1925	36	5.90					
					0	4.60					
			6	Feb. 7, 1925	19	4.63					
					37	4.80					
			7	Feb. 28, 1925	0	2.25					
					19	2.47					
8	Mar. 10, 1925	37	2.15								
		0	1.00	132.77	26.35						
11	Apr. 8, 1925	18	0.87	132.62	26.21						
		35	0.80	132.79	26.30						
12	Apr. 23, 1925	0	1.10								
		19	1.43								
12	Apr. 23, 1925	36	1.40								
		0	2.00	132.66	26.12						
11	Apr. 8, 1925	17	1.63	132.01	26.11						
		33	2.17	132.52	26.00						
11	Apr. 8, 1925	0	4.10	131.18	24.77						
		20	4.59								
12	Apr. 23, 1925	40	2.46	132.20	25.76						
		0	5.60	131.60	24.93						
12	Apr. 23, 1925	22	5.54								
		44	4.87	131.60	25.06						

<sup>1</sup> From hydrometer reading.

TABLE 17.—“Fish Hawk” stations in Massachusetts and Ipswich Bays, December, 1924, to June, 1925—Continued

Station	Position	General locality	Cruise	Date	Depth	Temperature	Salinity	Density			
10	41 58 00 N. 70 30 15 W.	Off Manomet, Plymouth, Mass.	13	May 20, 1925	0	9.00	131.76	24.62			
					17	5.14	131.56	24.96			
			14	June 16, 1925	34	3.99	131.92	25.37			
					0	14.43	32.16	23.93			
					10	12.83	32.23	24.31			
					20	5.98	32.81	25.84			
					38	5.69	32.95	25.99			
					0	6.84	-----	-----			
			11	41 59 30 N. 70 31 30 W.	Off Plymouth Harbor.	1	Dec. 3, 1924	35	6.85	-----	-----
								0	6.80	-----	-----
2	Dec. 9, 1924	18				6.82	-----	-----			
		36				6.70	-----	-----			
3	Dec. 17, 1924	0				5.40	-----	-----			
		18				5.93	-----	-----			
4	Dec. 23, 1924	36				6.10	-----	-----			
		0				4.60	-----	-----			
		18				4.03	-----	-----			
		35				4.60	-----	-----			
		0	2.00	-----	-----						
5	Jan. 7, 1925	18	2.00	-----	-----						
		35	1.15	-----	-----						
		0	1.10	132.67	26.19						
11A	42 00 00 N. 70 32 15 W.	do	6	Feb. 7, 1925	18	1.01	132.97	26.44			
					36	1.20	132.92	26.39			
					0	6.51	-----	-----			
12	42 01 15 N. 70 33 00 W.	do	1	Dec. 3, 1924	27	6.40	-----	-----			
					0	6.90	-----	-----			
			2	Dec. 9, 1924	14	6.42	-----	-----			
					0	5.60	-----	-----			
			3	Dec. 17, 1924	13	5.62	-----	-----			
					26	6.05	-----	-----			
			4	Dec. 23, 1924	0	-----	-----	-----			
					16	4.63	-----	-----			
					31	3.50	-----	-----			
					0	2.15	-----	-----			
0	1.67	-----			-----						
5	Jan. 7, 1925	13	1.67	-----	-----						
		26	1.55	-----	-----						
		0	5.83	-----	-----						
13	42 03 00 N. 70 34 30 W.	Off Gurnet Point	1	Dec. 3, 1924	20	5.80	-----	-----			
					0	5.85	-----	-----			
			2	Dec. 9, 1924	17	5.73	-----	-----			
					34	5.50	-----	-----			
			3	Dec. 17, 1924	0	5.80	-----	-----			
					12	5.83	-----	-----			
			4	Dec. 23, 1924	24	5.05	-----	-----			
					0	2.50	-----	-----			
					13	4.54	-----	-----			
			5	Jan. 7, 1925	25	4.50	-----	-----			
0	2.00	-----			-----						
13	1.90	-----			-----						
25	1.90	-----			-----						
0	1.20	132.81			26.30						
6	Feb. 7, 1925	16	1.10	132.94	26.41						
		32	1.10	133.04	26.50						
		0	1.21	-----	-----						
		15	1.13	-----	-----						
		30	1.21	-----	-----						
13A	42 02 30 N. 70 34 00 W.	do	7	Feb. 28, 1925	0	1.70	-----	-----			
					30	1.70	-----	-----			
			8	Mar. 10, 1925	13	1.64	-----	-----			
					25	1.45	-----	-----			
			11	Apr. 8, 1925	0	5.40	-----	-----			
12	4.03	-----			-----						
24	3.81	-----			-----						
14	42 05 00 N. 70 35 00 W.	Off Green Harbor	1	Dec. 3, 1924	0	5.13	-----	-----			
					18	4.90	-----	-----			
			2	Dec. 9, 1924	0	5.90	-----	-----			
					13	5.87	-----	-----			
			3	Dec. 17, 1924	26	5.80	-----	-----			
					0	4.60	-----	-----			
					11	4.51	-----	-----			
22	4.20	-----	-----								

<sup>1</sup> From hydrometer reading.

TABLE 17.—“Fish Hawk” stations in Massachusetts and Ipswich Bays, December, 1924, to June, 1925—Continued

Station	Position	General locality	Cruise	Date	Depth	Temperature	Salinity	Density
14	42 05 00 N. 70 35 00 W.	Off Green Harbor	4	Dec. 23, 1924	0	4.50		
					8	2.56		
			5	Jan. 7, 1925	16	3.90		
					0	2.15		
					13	2.23		
					25	2.05		
			6	Feb. 7, 1925	0	-0.10	132.72	26.29
					11	-0.20	132.98	
			11	Apr. 8, 1925	22	0.20	132.78	26.33
					0	5.10		
					10	5.22		
					20	4.05		
					0	5.30	31.9	
					10	5.10	31.7	
20	4.60	31.7						
0	8.80	131.85			24.49			
10	8.84							
20	4.09	131.87			25.20			
13	May 20, 1925	0	15.21	32.09	23.70			
		10	10.66	32.38	24.79			
		20	7.56	32.06	25.52			
		0	4.82					
		20	4.80					
		0	4.95					
15	Dec. 9, 1924	12	4.93					
		24	4.90					
		0	4.25					
		10	4.25					
3	Dec. 17, 1924	20	4.25					
		0	3.50					
4	Dec. 23, 1924	12	4.54					
		24	3.00					
15	42 09 30 N. 70 38 15 W.	Off Marshfield	5	Jan. 7, 1925	0	2.05		
					10	2.47		
			6	Feb. 7, 1925	20	2.95		
					0	0.00	132.67	26.25
			12	Feb. 7, 1925	0	-0.50	132.63	26.24
					23	2.03	132.91	26.33
			7	Feb. 28, 1925	0	1.21		
					12	1.21		
			22	Feb. 28, 1925	0	1.30		
					0	2.00	132.43	25.94
8	Mar. 10, 1925	11	1.67	132.47	26.00			
		21	1.95	132.58	26.07			
16	42 14 00 N. 70 41 00 W.	Off Scituate	1	Dec. 3, 1924	0	5.62		
					24	5.80		
			2	Dec. 9, 1924	0	5.65		
					12	5.62		
			3	Dec. 17, 1924	24	6.10		
					0	3.80		
					13	4.50		
					26	4.80		
			4	Dec. 23, 1924	0	4.50		
					13	4.54		
			5	Jan. 7, 1925	25	4.50		
					0	2.70		
					10	2.70		
					20	2.70		
0	0.00	132.54			26.14			
12	-0.10	132.92			26.45			
24	0.50	132.95			26.45			
0	5.05							
15	4.93							
30	3.52							
11	Apr. 8, 1925	0	5.70	131.55	24.87			
		12	5.10	131.62	25.02			
12	Apr. 23, 1925	24	4.58	131.66	25.11			
		0	15.17	32.09	23.70			
14	June 16, 1925	10	15.14	32.09	23.72			
		26	6.76	32.66	25.62			
17	42 18 15 N. 70 44 00 W.	Off Minots Light	1	Dec. 3, 1924	0	6.83		
					38	6.90		
			2	Dec. 9, 1924	0	6.50		
					18	6.42		
			3	Dec. 16, 1924	36	6.50		
					0	5.15		
16	5.34							
32	5.20							

1 From hydrometer reading.

TABLE 17.—“Fish Hawk” stations in Massachusetts and Ipswich Bays, December, 1924, to June, 1925—Continued

Station	Position	General locality	Cruise	Date	Depth	Temperature	Salinity	Density	
17	42 18 15 N. 70 44 00 W.	Off Minots Light.....	4	Dec. 22, 1924	0	4.90	-----	-----	
					19	4.53	-----	-----	
					35	4.50	-----	-----	
			12	Apr. 23, 1925	0	5.60	131.60	24.95	
					17	5.13	131.70	25.09	
					35	4.60	131.60	25.02	
			13	May 20, 1925	0	8.70	131.60	24.53	
					16	5.00	131.96	25.30	
					32	3.68	132.20	25.46	
			14	June 16, 1925	0	15.00	32.23	23.86	
					10	14.32	32.16	23.94	
					20	7.27	32.66	25.56	
			37	4.65	32.95	26.11			
18	42 15 30 N. 70 32 30 W.	Central part of Massachusetts Bay.....	3	Dec. 16, 1924	0	5.40	-----	-----	
					30	5.49	-----	-----	
					60	5.45	-----	-----	
			4	Dec. 22, 1924	0	4.50	-----	-----	
					32	5.03	-----	-----	
					64	4.50	-----	-----	
			5	Jan. 6, 1925	0	3.50	-----	-----	
					32	3.57	-----	-----	
					63	4.35	-----	-----	
			6	Feb. 6, 1925	0	2.00	133.01	26.40	
					34	1.85	133.08	26.48	
					68	2.00	-----	-----	
7	Feb. 24, 1925	0	2.00	133.14	26.51				
		35	1.70	132.51	26.12				
		70	2.20	133.10	26.45				
8	Mar. 10, 1925	0	1.00	132.90	26.32				
		38	1.88	132.91	26.33				
		76	1.85	133.01	26.41				
18A	42 17 00 N. 70 30 30 W.	do.....	12	Apr. 23, 1925	0	6.40	131.86	25.05	
					35	4.00	132.00	25.33	
					70	2.88	132.48	25.92	
			13	May 20, 1925	0	8.15	131.50	24.53	
					40	3.71	132.29	25.68	
					80	3.08	132.38	25.81	
			14	June 16, 1925	0	15.22	132.33	-----	
					10	13.88	132.16	-----	
					20	6.11	32.95	25.94	
						40	3.55	33.39	26.57
						79	3.23	33.24	26.48
			19	42 22 00 N. 70 38 00 W.	Off Boston Harbor.....	5	Jan. 6, 1925	0	3.95
29	3.97	-----						-----	
58	4.10	-----						-----	
6	Feb. 6, 1925	0				2.60	133.13	26.44	
		35				2.06	133.26	26.60	
		70				2.60	133.18	26.66	
20	42 44 00 N. 70 36 45 W.	Ipswich Bay.....	9	Mar. 12, 1925	0	3.50	131.47	25.07	
					32	2.60	132.94	26.31	
					64	2.70	133.11	26.42	
21	42 46 00 N. 70 40 00 W.	do.....	9	do.....	0	3.60	130.71	24.44	
					21	2.81	133.08	26.39	
					41	2.46	133.19	26.50	
			10	Mar. 25, 1925	0	3.80	-----	-----	
					32	2.71	-----	-----	
					64	2.82	-----	-----	
11	Apr. 7-8, 1925	0	4.90	128.75	22.76				
		20	2.62	-----	-----				
		39	2.61	131.80	25.38				
22	42 47 45 N. 70 43 30 W.	do.....	9	Mar. 12, 1925	0	3.80	132.41	25.77	
					15	2.46	132.86	26.25	
					30	2.44	132.94	26.31	
			10	Mar. 25, 1925	0	3.60	-----	-----	
					20	2.72	-----	-----	
					30	2.48	-----	-----	
23	42 49 30 N. 70 40 00 W.	do.....	10	do.....	0	3.70	-----	-----	
					79	2.89	-----	-----	
			11	Apr. 7-8, 1925	0	4.00	-----	-----	
					37	2.43	-----	-----	
			75	2.48	-----	-----			

<sup>1</sup> From hydrometer reading.

<sup>2</sup> These water samples probably were transposed.

TABLE 17.—“Fish Hawk” stations in Massachusetts and Ipswich Bays, December, 1924, to June, 1925—Continued

Station	Position	General locality	Cruise	Date	Depth	Temperature	Salinity	Density
24	42° 50' 30" N. 70° 43' 30" W.	Ipswich Bay	10	Mar. 25, 1925	0	3.60		
					16	2.73		
					33	2.57		
25	42° 52' 00" N. 70° 40' 00" W.	do	9	Mar. 12, 1925	0	3.60	31.47	25.04
					25	2.40	32.47	26.16
					49	2.44	33.02	26.39
			10	Mar. 25, 1925	0	3.80		
					38	2.63		
					75	2.90		
11	Apr. 7-8, 1925	0	4.75					
		33	2.57					
		65	2.78					
26	42° 53' 30" N. 70° 43' 00" W.	do	9	Mar. 12, 1925	0	3.70	31.03	24.66
					17	2.36	32.81	26.22
					33	2.40	32.94	26.32
			10	Mar. 25, 1925	0	3.40		
					12	3.27		
					24	2.64		
27	42° 54' 30" N. 70° 40' 00" W.	do	10	do	0	3.35		
					38	2.63		
					70	2.85		
28	42° 56' 00" N. 70° 41' 45" W.	do	9	Mar. 12, 1925	0	3.10	32.10	25.59
					22	2.60	32.70	26.10
					43	2.60	33.21	26.62
			10	Mar. 25, 1925	0	3.60		
					18	2.83		
					37	2.59		
11	Apr. 7-8, 1925	0	4.20	20.02	23.04			
		28	2.57					
		51	2.61	33.15	26.47			
29	42° 38' 00" N. 70° 33' 30" W.	Off Thatcher's Island	11	Apr. 8, 1925	0	4.55		
					29	2.83		
					39	2.81		
			12	Apr. 22, 1925	0	4.20	31.13	24.72
					22	4.23		
					44	3.56	32.00	25.47
			13	May 21, 1925	0	7.10	31.44	
					32	3.38	32.61	
					64	3.21	32.42	
			14	June 17, 1925	0	12.91	32.09	24.19
					10	12.24	32.09	24.30
					20	11.87	32.09	24.37
48	5.19	32.88	26.00					
30	42° 38' 00" N. 70° 25' 00" W.	Offing of Cape Ann	11	Apr. 8, 1925	0	4.30		
					42	3.13		
					84	3.11		
			12	Apr. 22, 1925	0	4.00	31.79	25.26
					40	3.42	32.38	25.75
					80	2.92	32.82	26.17
			13	May 22, 1925	0	9.40	31.11	24.05
					25	3.51	32.21	25.65
					50	3.30	32.21	25.66
			14	June 17, 1925	0	13.33	32.33	24.31
					10	12.08	32.66	24.78
					20	6.39	32.95	25.91
40	4.23	33.24	26.38					
75	4.04	33.24	26.40					
31	42° 30' 00" N. 70° 20' 00" W.	On line Cape Ann-Cape Cod	11	Apr. 7, 1925	0	4.05	32.02	25.45
					57	2.86		
					112	2.90	32.59	26.00
			12	Apr. 22, 1925	0	4.40	31.30	24.83
					42	2.63	32.47	25.92
					84	2.70	32.81	26.24
13	May 21, 1925	0	9.40	31.27	24.17			
		81	3.12					
		162	3.10	32.69	25.98			
14	June 17, 1925	0	12.94	32.66	24.61			
		10	9.11	32.74	25.35			
		20	5.45	33.10	26.14			
40	4.00	33.17	26.35					
94	3.47	33.24	26.49					

1 From hydrometer reading.

2 Probably transposed.

TABLE 17.—“Fish Hawk” stations in Massachusetts and Ipswich Bays, December, 1924, to June, 1925—Continued

Station	Position	General locality	Cruise	Date	Depth	Temperature	Salinity	Density			
32	42 23 00 N. 70 15 00 W.	Midway between Cape Cod and Cape Ann.....	11	Apr. 7, 1925	0	4.40	-----	-----			
					30	3.33	-----	-----			
			12	Apr. 22, 1925	60	2.72	-----	-----			
					0	4.30	131.47	24.98			
			13	May 21, 1925	25	4.11	131.66	25.16			
					50	3.00	132.41	25.84			
			14	June 17, 1925	0	9.20	131.66	24.50			
					35	3.40	132.41	25.77			
			33	42 15 00 N. 70 10 00 W.	North of Cape Cod.....	13	May 21, 1925	70	3.09	132.56	25.95
								0	12.43	32.52	24.61
						14	June 17, 1925	10	9.62	32.59	25.16
								20	4.56	33.39	26.47
34	42 08 00 N. 70 06 00 W.	Off Cape Cod.....				11	Apr. 7, 1925	50	3.97	33.17	26.53
								0	4.60	131.91	25.00
						12	Apr. 22, 1925	40	3.69	-----	-----
								80	2.91	133.18	26.46
						13	May 21, 1925	0	4.40	132.00	25.39
								32	4.18	132.57	25.87
			35	42 34 30 N. 70 38 00 W.	Off Eastern Point, Gloucester.....	14	June 17, 1925	64	3.06	132.65	26.01
								0	8.30	131.74	24.68
						11	Apr. 7, 1925	25	5.04	132.26	25.54
								50	3.28	132.52	25.91
12	Apr. 22, 1925	0				12.94	32.59	24.56			
		10				11.81	32.45	24.65			
13	May 21, 1925	20				5.20	33.17	26.22			
		50				4.09	33.17	26.34			
36	42 30 15 N. 70 43 15 W.	North side of Massachusetts Bay, off Bakers Island.				11	Apr. 7, 1925	0	4.40	132.01	25.39
								22	2.94	-----	-----
			12	Apr. 22, 1925	44	3.12	132.68	26.05			
					0	4.50	131.86	25.26			
			13	May 21, 1925	25	4.02	132.01	25.44			
					50	3.48	132.91	26.22			
			37	42 28 00 N. 70 48 00 W.	Off Marblehead.....	14	June 17, 1925	0	9.00	131.59	24.48
								28	4.30	132.29	25.62
						12	Apr. 23, 1925	66	3.31	132.36	25.77
								0	12.11	32.59	24.72
13	May 22, 1925	10				11.06	32.38	24.75			
		20				5.56	33.03	26.06			
38	42 24 15 N. 70 52 15 W.	Off Nahant.....				14	June 17, 1925	50	3.91	33.10	26.29
								0	4.40	131.26	24.81
						12	Apr. 21, 1925	22	4.23	131.64	25.14
								44	3.66	131.56	25.34
			13	May 22, 1925	0	8.00	131.47	24.54			
					22	3.78	132.05	25.48			
			14	June 17, 1925	44	3.31	132.74	26.06			
					0	13.16	32.09	24.13			
			39	42 24 15 N. 70 52 15 W.	Off Nahant.....	14	June 17, 1925	10	12.72	32.16	24.27
								20	12.03	32.30	24.50
12	Apr. 23, 1925	40				6.14	32.66	24.70			
		0				5.20	131.50	25.06			
13	May 22, 1925	22				4.83	131.70	25.12			
		44				3.95	131.70	25.15			
14	June 17, 1925	0				6.95	131.87	24.99			
		23				3.99	132.51	25.78			
40	42 24 15 N. 70 52 15 W.	Off Nahant.....				14	June 17, 1925	46	3.72	132.47	25.82
								0	13.53	32.23	24.16
			12	April 23, 1925	10	12.15	32.38	24.54			
					20	12.06	32.60	24.81			
			13	May 22, 1925	44	4.61	32.88	26.06			
					0	4.20	131.59	25.08			
			14	June 17, 1925	19	4.83	131.75	25.16			
					38	4.00	132.00	25.38			
			41	42 24 15 N. 70 52 15 W.	Off Nahant.....	13	May 22, 1925	0	8.72	131.71	24.60
								20	4.39	-----	-----
12	April 23, 1925	89				3.69	-----	-----			
		0				12.16	32.38	24.56			
14	June 17, 1925	10				10.24	32.45	24.94			
		20				9.08	32.66	25.30			
13	May 22, 1925	42				5.30	32.88	25.98			
		0				6.00	131.47	24.79			
14	June 17, 1925	13				4.57	131.40	24.90			
		26				4.75	132.09	25.30			
42	42 24 15 N. 70 52 15 W.	Off Nahant.....	13	May 22, 1925	0	9.25	131.35	24.24			
					15	4.33	132.02	25.41			
			12	April 23, 1925	30	3.86	-----	-----			
					0	12.76	32.16	24.27			
			14	June 17, 1925	10	9.75	32.52	25.08			
					20	8.93	32.52	25.22			
			14	June 17, 1925	28	5.92	32.81	25.85			

<sup>1</sup> From hydrometer reading.

TABLE 18.—*Temperatures taken from the "Halcyon" in 1925, stations not numbered*

Date	Latitude	Longitude	General locality	Depth	Temperature
Apr. 17	42 41 30	70 28 30	4 miles northeast (mag.) from Cape Ann whistling buoy.....	0	5.50
				48	2.90
18	43 40 00	69 47 00	At Seguin Island whistling buoy.....	0	4.40
				20	2.40
19	44 04 00	68 08 00	7 miles off Great Duck Island, off Mountain Desert Island.....	0	3.10
				18	3.05
				37	2.98
				55	2.80
				91	2.87
June 4	43 08 00	69 40 00	Platts Bank.....	0	10.00
				18	5.80
				36	4.50
				55	4.20
7	41 42 00	69 48 00	6 miles east of Chatham.....	0	12.70
				42	6.54
7	41 25 45	69 42 00	1 mile south-southeast from Round Shoal whistling buoy.....	0	8.30
				29	8.36
11	41 28 30	69 34 00	7 miles east from Round Shoal whistling buoy.....	0	11.60
				37	6.34
July 9	44 10 15	68 16 30	1 mile west from Little Duck Island, Me.....	0	8.80
				29	7.85
13	44 20 45	67 56 30	3½ miles west from Petit Manan Lighthouse.....	0	10.50
				37	7.76
15	44 13 15	68 14 30	2½ miles north-northeast from Little Duck Island.....	0	11.00
				21	8.70
18			½ mile northeast from White Island, Me.....	0	13.30
				42	6.72
20	43 08 30	69 40 30	Platts Bank.....	0	18.80
				37	7.90
				80	4.48
22	43 35 00	70 07 00	Cod Ledges (off Portland, Me.).....	0	14.40
				20	8.52
23	43 07 45	70 25 40	Between Boone Island Lighthouse and whistling buoy.....	44	5.48
Aug. 7	44 11 15	68 14 25	½ mile northeast from Little Duck Island.....	0	11.10
				9	9.10
				27	8.96
20	41 27 00	69 43 00	Round Shoal whistling buoy.....	0	11.60
				13	11.36
				22	11.20
21	41 27 00	69 41 15	1 mile east from Round Shoal whistling buoy.....	0	11.60
				9	11.58
20	41 27 00	69 41 15	1 mile east from Round Shoal whistling buoy.....	0	11.60
				20	11.60
21	41 28 20	69 40 20	2 miles east-northeast from Round Shoal whistling buoy.....	0	11.60
				15	11.50
				28	11.70
21	41 25 30	69 41 20	1½ miles south-southeast from Round Shoal whistling buoy.....	0	13.30
				24	13.20
23	41 21 00	69 42 50	1 mile northeast from Rose and Crown buoy.....	0	16.40
				22	15.56
21	41 25 30	69 42 20	1 mile south of Round Shoal buoy.....	0	15.00
				26	13.18
23	41 07 15	69 42 45	Great Rip whistling buoy, Mass.....	0	14.10
				22	14.42
24	41 07 15	69 42 45	do.....	0	13.80
				13	14.22
				24	14.25
24	41 08 00	69 37 00	4 miles east from Great Rip whistling buoy.....	0	13.80
				15	14.06

TABLE 18.—Temperatures taken from the "Halcyon" in 1925, stations not numbered—Continued

Date	Latitude	Longitude	General locality	Depth	Temperature
Aug. 24	41 10 00	69 40 00	Off Great Rip.....	22	14.40
26	42 18 00	70 19 30	Stellwagen Bank.....	0	16.60
				18	12.06
				35	7.07
Sept. 2	42 47 00	70 19 00	Northwest prong of Jeffreys Ledge.....	0	16.60
				27	8.68
				51	5.95
3	43 07 00	69 37 30	Platts Bank.....	0	15.20
				18	9.34
				37	6.14
				70	5.90
3	43 18 30	69 40 00	Between Platts Bank and Portland, Me.....	0	14.70
				166	5.00
4			1½ miles east-southeast from White Island, Me.....	0	13.30
				26	10.20
				31	9.72
5	43 07 45	70 25 45	Between Boone Island Lighthouse and whistling buoy.....	0	15.50
				51	7.38
9½	44 11 15	68 15 00	¼ mile north of Little Duck Island, Me.....	0	11.10
				18	10.23
10	44 13 15	68 13 15	2¾ miles northeast of Little Duck Island, Me.....	0	10.80
				18	10.80
				33	10.10
14	44 21 30	67 54 00	1½ miles west of Petit Manan Lighthouse.....	0	10.50
				18	10.50
				42	10.16
15	43 58 00	68 08 30	Mount Desert Rock.....	0	9.30
				18	9.26
				37	8.50
				80	7.96
15	44 04 00	68 07 00	Off Mount Desert Rock.....	0	9.80
				18	9.36
				37	9.08
				55	8.76
				91	8.72
16	44 05 00	68 26 30	Off Swans Island whistling buoy, Me.....	0	10.80
				18	9.72
				49	9.42
Oct. 1	41 21 45	69 42 00	2 miles northeast of Rose and Crown buoy.....	0	12.20
				13	12.70
				26	12.78
1	41 25 00	69 42 00	1½ miles south of Round Shoal buoy.....	0	11.60
				13	12.00
				24	12.00
1	41 24 00	69 37 00	5 miles southeast of Round Shoal buoy.....	0	11.60
				13	11.86
				26	13.54
14	44 09 00	68 18 00	¼ mile northeast from Drum Ledge buoy, Mount Desert.....	0	10.50
				31	8.98
15	44 12 50	68 13 00	2½ miles northeast from Little Duck Island.....	0	10.80
				9	9.28
				27	9.16
16	44 09 30	68 12 00	2 miles southeast from Little Duck Island.....	0	10.30
				18	8.74
				37	8.74
22	41 25 30	69 42 30	Round Shoal whistling buoy 1 mile south.....	0	10.80
				11	9.44
				22	9.38
27	41 17 45	71 00 00	Vineyard Sound whistling buoy.....	0	13.30
				16	11.90
				33	11.86

TABLE 18.—Temperatures taken from the "Halcyon" in 1925, stations not numbered—Continued

Date	Latitude	Longitude	General locality	Depth	Temperature
27	41° 11' 00"	71° 28' 00"	21 miles east of Block Island.....	0 11 22	13.00 11.18 11.72
28	41° 11' 40"	70° 51' 15"	½ mile west of No Mans Land gas and whistling buoy.....	0 18	13.30 12.10

TABLE 19.—"Albatross II" stations, 1926

Station	Date	Position	General locality	Depth	Temperature <sup>1</sup>	Salinity	Density
20200	Aug. 11	42° 30' N. 70° 17' W.	Off Gloucester.....	0	18.00	31.89	22.93
				20	9.30	32.60	25.21
				40	5.80	32.82	25.88
				100	4.75	32.83	26.01
				180	4.72	32.86	26.03
20201	Aug. 12	42° 12' N. 69° 13' W.	Offing of Cape Cod.....	0	10.40	32.85	25.36
				20	9.65	32.85	25.36
				40	4.71	33.05	26.19
				100	3.70	33.37	26.55
				150	4.57	33.37	26.55
20202	do	41° 48' N. 68° 10' W.	Northwest edge of Georges Bank.....	0	15.00	32.59	24.24
				15	12.25	32.93	24.66
				35	10.60	32.97	25.28
				55	7.45	32.97	25.28
				60	7.45	32.97	25.28
20203	Aug. 13	42° 06' N. 67° 18' W.	North edge of Georges Bank.....	0	14.70	32.70	-----
				20	11.00	32.98	-----
				40	10.30	32.98	-----
				60	8.30	32.98	-----
20204	do	42° 07' N. 66° 40' W.	Northeast edge of Georges Bank.....	0	17.77	32.45	23.39
				20	10.95	32.84	25.12
				40	7.80	32.91	25.68
				70	6.30	33.04	25.99
20205	Aug. 14	41° 51' N. 66° 18' W.	East end of Georges Bank.....	0	17.20	32.59	23.66
				20	12.02	32.78	24.88
				40	8.90	32.63	25.53
				60	8.80	32.96	25.57
20206	Aug. 15	41° 58' N. 66° 26' W.	Northeast part of Georges Bank.....	0	16.94	32.57	23.69
				20	11.30	32.08	24.04
				40	7.60	33.04	25.81
				60	6.10	33.07	26.03
20207	Aug. 17	41° 53' N. 66° 22' W.	East end of Georges Bank.....	0	15.50	32.60	24.03
				20	14.70	32.66	24.25
				40	10.05	32.95	25.36
				70	7.95	33.06	25.78
20208	Aug. 18	41° 46' N. 66° 26' W.	do.....	0	15.83	32.60	24.11
				20	11.80	32.82	24.95
				40	10.00	32.89	25.32
				60	9.10	32.94	25.51
20209	Aug. 19	42° 28' N. 67° 05' W.	Southeast part of basin, north of Georges Bank.....	0	16.60	32.54	23.74
				20	16.70	32.54	23.72
				40	13.10	32.80	24.69
				100	5.70	33.83	26.09
				200	6.60	34.79	27.33
				300	6.40	34.86	27.41
20210	Aug. 20	43° 11' N. 67° 41' W.	Basin, offing of Mount Desert.....	0	16.00	32.73	23.88
				20	15.90	32.78	24.08
				40	6.60	33.08	24.68
				100	4.50	33.57	26.62
				200	5.80	34.15	28.03
20211	do	43° 50' N. 68° 33' W.	Near Mount Desert Rock.....	0	14.17	32.96	25.00
				20	12.15	32.96	25.00
				40	9.20	33.06	25.59
				100	5.60	33.06	25.59
				160	6.05	34.15	26.00

<sup>1</sup> Probable error ±0.1°.