



**FISHERIES RESEARCH BOARD
OF CANADA**

MANUSCRIPT REPORTS OF THE BIOLOGICAL STATIONS

No. 178

Title

an analysis of surface water temperatures for the
atlantic coast of Canada for the year - 1935.

Author

H. B. Hachey.

AN ANALYSIS OF SURFACE WATER TEMPERATURES
FOR THE ATLANTIC COAST OF
CANADA

FOR THE YEAR -- 1935

by

H. B. Keechey

AN ANALYSIS OF SURFACE WATER TEMPERATURES
FOR THE ATLANTIC COAST OF
CANADA
FOR THE YEAR ~~1934~~ 1935
by
H. B. Hachey

Introduction:

This report which, as in previous years, is an analysis of surface water temperatures for the Atlantic coast of Canada is to be followed immediately by a condensed summary of the data for the past seven years. Consequently, this present report serves only to record the data of the past year. The taking of water temperatures was inaugurated on the Halifax lightship during the past year, while observations were discontinued at North Pt. Certain factors make it advisable to review the whole situation with reference to coastal stations for water temperature observations and certain definite recommendations will be contained in the condensed summary already mentioned as being under preparation.

Data:

The average daily temperatures for the year 1935 for each of the stations, are plotted in figure 1 and furnished in appended tables. The monthly mean temperatures for each station have been calculated and are furnished in table 1. The mean, as well as the annual range, as determined from the monthly means, is also furnished in the table. In table 2, the period with temperatures above 10.0 C. is given for each station. This period is determined by the date at which the daily average water temperature attains a permanent summer value of 10.0 C. or higher, and the date at which the daily

average water temperature attains a permanent autumn value of less than 10.0 C.

Maximum and Minimum Monthly Mean Temperatures:

The table of monthly means (table 1) indicate that the highest monthly mean water temperature was experienced at North Pt. (20.4). Listing the others in order of magnitude we find Entry Is. (18.4), Sestari Is. (17.5), Sable Is. (17.2), Halifax (16.2), Sembro Is. (15.6), Hall's Harbour (14.1), Mutton Bay (13.8), St. Andrews (13.1), Cape St. Mary (13.0), Halifax lightship (12.5), Larcher lightship (11.6), and Grand Menan (11.1). In general, it might be stated that a comparison of these monthly mean temperatures with similar ones of the preceding year bring out the fact that, for points inside the Gulf of St. Lawrence high monthly means of 1935 are greater than those for 1934, while the reverse is true for points outside the Gulf. St. Andrews however is an exception, the highest monthly mean being 13.1 in both years.

With the exception of Larcher lightship (1.5), Grand Menan (1.2), and Halifax (0.5), all other points where observations were taken have minimum monthly means of 0.0 C. or lower.

Permanent Summer Temperature of 10.0 C. or More:

A permanent summer temperature of 10.0 C. or greater was recorded at North Pt. on May 30th, at Halifax on June 5th, at Sembro Is. on June 22nd, at St. Andrews on June 25th, at Entry Is. on June 29th, at Sable Is. and Sestari Is. on July 2nd, at Hall's Harbour on July 4th, at Mutton Bay on July 15th, at Larcher lightship on July 20th, at Grand Menan on July 25th, and at St. Mary's Is. on July 26th.

Permanent Autumn Temperature of Less than 10.0 C.

A permanent autumn temperature of less than 10.0 C. was reached at St. Mary's Island on Sept. 16th, at Entry Is. on Oct. 15th, at St. Andrews on Oct. 20th, at Sestari Is. on Oct. 31st, at Grand Manan on Nov. 7th, at Hall's Harbour on Nov. 8th, at Halifax lightship and Sembro Is. on Nov. 14th, at Halifax and Sable Is. on Nov. 15th, and at Larcher lightship on Nov. 25th.

Station	Date at which a permanent summer temperature of 10.0 C. or greater was reached °	Date at which a permanent fall temperature of less than 10.0 C. was reached
G. Manan	July 25th.	Nov. 7th. 8th / 20th .
St. Andrews	June 25th.	Oct. 20th.
Lurcher Lgt.	July 20th.	Nov. 25th.
Sambre Is.	June 22nd.	Nov. 14th.
Halifax	June 5th.	Nov. 15th.
Sable Is.	July 2nd.	Nov. 15th.
Sestari Is.	July 2nd.	Oct. 31st.
Entry Is.	June 29th.	Oct. 13th.
North Pt.	May 30th.	-----
G. St. Mary	July 26th.	Sept. 16th.
Hall's Mbr.	July 4th.	Nov. 8th.
Mutton Bay	July 15th.	-----
Halifax Lgtsh.	-----	-----

Table 2

BIOLOGICAL BOARD OF CANADA

Daily and Monthly Mean Water Temperatures

Atlantic Coast of Canada

Grand Mean -- 1935

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	3.7	0.7	0.6	1.4	3.5	5.6	9.4	12.1	11.2	10.4	9.9	7.4
2	4.0	1.0	1.2	1.5	3.2	8.5	10.1	11.0	11.2	10.4	9.7	7.3
3	3.7	1.6	1.5	1.0	4.0	8.5	9.8	11.3	10.9	10.4	8.9	7.2
4	2.7	2.0	1.9	1.0	4.6	8.5	8.5	11.1	11.1	10.4	8.5	6.8
5	2.0	1.1	2.0	1.0	5.6	8.9	9.5	9.8	10.2	10.2	8.8	4.7
6	4.5	0.8	0.3	1.5	4.0	8.3	9.5	10.4	10.9	10.5	10.3	5.7
7	4.8	1.0	0.1	2.5	3.8	7.8	8.6	11.3	11.4	9.1	9.9	5.4
8	4.9	1.4	0.0	2.5	4.1	6.9	9.0	10.5	11.9	9.7	9.5	5.6
9	4.3	1.5	0.7	2.5	4.7	7.2	9.6	12.0	12.2	9.8	8.4	6.3
0	4.7	1.6	0.9	2.4	4.0	6.9	10.1	11.0	11.8	9.7	8.7	6.4
1	4.5	0.8	1.6	2.2	4.4	6.8	10.1	11.2	11.1	10.4	9.4	5.9
2	2.6	0.3	1.3	2.4	4.5	7.4	10.3	11.2	11.0	10.4	9.4	6.0
3	2.0	0.8	1.2	2.2	4.7	7.6	9.8	11.1	10.1	10.2	8.9	5.4
4	2.2	1.4	1.0	2.5	5.2	7.4	10.1	10.9	11.4	10.1	8.8	6.0
5	1.0	2.2	1.3	2.4	5.0	7.3	10.2	12.0	10.6	10.2	8.8	6.3
6	1.1	1.7	1.6	2.5	4.9	8.0	10.1	12.7	10.6	9.8	8.8	6.2
7	1.0	0.7	1.9	2.0	4.9	7.2	10.1	12.7	10.7	9.4	7.4	6.2
8	1.6	1.1	1.3	2.0	5.4	7.8	10.1	12.9	11.4	9.9	7.4	5.9
9	1.2	1.2	2.0	2.5	5.4	7.3	10.3	12.5	10.9	10.4	7.7	5.9
0	1.1	1.3	2.0	2.8	5.5	7.1	11.0	11.5	11.0	11.0	7.7	5.5
1	2.3	0.9	0.2	2.9	5.8	7.3	10.9	10.9	11.5	9.9	7.9	5.1
2	3.5	0.7	0.7	3.7	5.9	7.2	9.6	10.6	11.4	9.6	8.6	3.8
3	2.7	0.7	1.2	3.5	5.5	7.4	10.1	10.6	11.0	10.4	8.0	3.7
4	2.0	0.6	1.3	3.1	4.9	7.3	9.4	10.2	10.1	9.5	6.1	4.7
5	0.0	1.1	1.2	3.6	5.9	7.5	10.2	10.5	10.8	7.8	6.9	4.0
6	1.9	1.2	1.2	3.6	7.5	8.5	11.0	10.4	10.9	9.6	7.0	3.9
7	1.1	0.7	1.1	4.1	6.0	7.8	11.2	10.5	10.9	9.0	7.5	3.5
8	0.3	0.4	1.3	4.0	5.8	7.4	11.1	10.6	10.5	9.3	8.0	3.1
9	0.7		1.4	4.1	5.1	7.6	11.5	10.3	10.5	9.4	7.6	2.8
0	0.8		1.4	3.2	5.3	8.3	11.0	10.6	10.3	10.4	7.6	2.9
1	-0.4		2.1		5.6		10.5	10.3		10.1		3.6
Mean	2.3	1.1	1.2	2.5	5.0	7.6	10.1	11.1	11.0	9.9	8.4	5.3

BIOLOGICAL BOARD OF CANADA

Daily and Monthly Mean Water Temperatures

Atlantic Coast of Canada

St. Andrews, -- 1935

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	1.8	-1.3	-0.8	1.1	4.1	7.2	11.4	12.9	12.6	11.1	9.4	5.1
2	1.4	-0.9	-0.5	1.1	3.3	8.2	10.7	13.6	12.6	11.0	9.3	5.3
3	-0.1	-0.8	-0.9	0.9	3.9	8.3	10.8	12.4	12.5	10.9	9.2	5.6
4	-0.3	-0.7	-1.2	0.6	3.6	7.5	11.1	12.8	12.4	11.2	9.1	5.2
5	-0.7	-1.4	-0.8	0.7	4.9	8.1	11.4	12.2	12.3	10.9	9.6	4.4
6	0.4	-1.7	-1.2	0.8	5.0	9.0	11.8	12.2	12.7	10.7	9.6	4.0
7	1.6	-1.0	-1.3	0.9	4.8	8.5	11.0	12.5	13.2	10.2	9.1	3.8
8	1.8	-1.0	-1.2	1.2	3.3	7.7	10.4	12.9	13.2	9.8	9.2	4.1
9	1.9	-1.1	-1.1	1.4	4.7	8.2	11.2	12.7	12.6	10.4	8.5	4.6
0	1.4	-0.5	-0.9	1.9	3.0	8.7	11.5	13.1	12.8	10.6	8.9	4.4
1	1.4	-1.0	-0.4	2.5	6.8	8.8	12.6	---	12.6	10.6	9.0	4.8
2	0.5	-1.3	-0.5	2.3	5.8	9.5	12.1	13.3	12.5	10.1	8.9	4.5
3	0.6	-1.0	-1.2	2.2	3.0	12.0	12.9	13.5	12.1	10.1	8.7	4.3
4	0.7	-0.6	-0.8	2.9	3.2	9.9	13.6	13.3	11.9	---	8.4	4.8
5	0.3	-0.4	-0.4	3.4	4.8	9.3	11.5	13.6	11.6	10.2	8.3	4.5
6	-0.4	0.1	-0.5	2.5	4.9	9.2	11.5	---	11.5	9.8	8.2	4.7
7	-0.2	-0.4	-0.2	3.1	3.7	8.7	12.0	12.8	11.5	9.8	7.5	4.3
8	0.0	-0.7	-0.5	2.5	3.6	9.0	11.8	13.7	11.7	10.0	7.7	3.9
9	-1.0	-0.5	-0.6	2.1	3.3	8.9	12.1	13.4	11.7	10.1	7.2	3.4
0	-0.1	-0.7	-0.5	2.8	4.9	8.4	12.2	13.3	12.0	10.0	7.3	3.3
1	-0.5	-0.7	-0.4	2.9	4.6	8.9	11.8	14.0	12.2	9.8	7.4	2.9
2	-0.2	-0.9	-0.5	3.5	5.2	9.1	11.4	13.8	11.8	10.0	7.5	2.8
3	-0.2	-0.7	-0.2	3.1	3.2	9.3	11.8	13.6	11.4	9.9	7.0	2.7
4	-1.1	-0.6	-0.2	3.7	3.7	9.9	13.2	13.8	11.1	9.3	6.5	2.5
5	-1.5	-0.4	0.2	3.7	3.4	10.8	12.9	12.8	11.1	9.1	6.2	2.1
6	-1.4	-0.9	0.2	4.2	6.0	12.0	12.9	12.7	---	9.1	6.1	2.5
7	-1.6	-0.8	0.3	3.4	3.6	10.8	13.1	12.6	11.8	8.9	6.0	2.3
8	-1.5	-1.3	0.5	4.4	6.0	10.2	13.0	13.0	11.3	9.5	6.7	2.0
9	-1.3	---	0.3	5.0	6.3	11.3	12.8	13.7	11.1	9.4	7.2	2.1
0	-1.6	---	0.8	3.7	7.5	12.0	12.9	12.7	11.0	9.3	6.0	1.6
1	-1.6	---	1.1	---	7.2	---	13.0	13.0	---	9.3	---	1.5
Mean	0.0	-0.8	-0.4	2.5	3.3	9.3	12.0	13.1	12.0	10.1	8.0	3.7

BIOLOGICAL BOARD OF CANADA

Daily and Monthly Mean Water Temperatures for the
Atlantic Coast of Canada

Lurchez lightship -- 1935

Day of Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	5.6	1.7	1.5	3.0	3.7	6.9	9.7	10.9	11.8	10.1	9.7	9.0
2	5.4	2.1	1.5	3.0	3.9	6.8	9.0	11.1	12.0	10.3	9.8	9.0
3	5.1	2.0	1.8	2.8	4.4	7.0	9.0	11.5	11.5	10.3	9.7	9.0
4	4.7	2.0	1.9	2.7	4.2	7.0	9.1	12.0	12.0	10.4	9.9	9.0
5	4.1	1.9	1.9	2.8	4.3	8.5	9.8	11.3	11.1	10.5	10.0	8.0
6	5.1	1.4	2.0	2.5	4.5	9.0	10.0	11.5	11.3	10.4	10.5	8.0
7	5.1	1.2	1.6	2.9	4.5	8.9	9.0	10.8	12.0	10.3	9.5	8.0
8	5.4	1.3	1.5	2.8	4.2	9.0	9.0	12.0	12.0	10.0	9.3	8.0
9	5.1	1.7	1.5	2.9	4.2	8.6	9.4	12.0	12.0	10.2	9.0	8.5
10	5.0	1.6	1.6	3.1	4.2	8.4	9.6	11.8	11.8	10.4	8.6	8.2
11	4.3	3.0	1.5	3.5	4.9	8.6	10.3	11.5	11.2	10.4	10.0	8.1
12	4.3	1.3	1.6	3.1	4.9	8.2	9.9	12.0	11.1	10.1	9.3	8.3
13	3.9	1.1	1.5	3.2	5.0	8.4	9.6	11.8	10.5	10.0	9.2	8.2
14	3.9	1.5	1.6	3.2	5.0	8.6	9.7	11.3	10.6	9.9	10.0	8.1
15	3.7	1.9	1.8	3.1	5.4	8.1	9.1	11.7	10.3	9.8	10.0	8.3
16	2.6	1.7	1.7	3.0	5.2	8.1	9.2	12.0	10.5	9.5	9.0	8.3
17	2.8	2.0	1.7	3.0	5.7	7.9	9.2	11.8	10.7	9.4	9.0	7.9
18	2.1	1.1	1.8	2.9	6.0	7.9	9.6	11.2	10.9	9.4	10.0	8.1
19	1.8	1.0	2.0	3.0	6.0	8.0	9.8	11.0	10.4	9.5	9.9	8.2
20	2.1	1.1	1.6	3.0	6.0	8.1	10.4	11.6	10.7	9.4	10.0	8.0
21	2.4	1.2	1.8	3.0	6.0	8.0	10.4	11.5	10.9	9.8	10.2	8.0
22	2.2	1.0	1.9	3.0	6.0	8.0	10.0	11.3	10.6	9.9	10.7	7.8
23	2.0	1.0	2.1	3.0	6.0	8.4	10.4	11.3	10.6	9.9	10.8	7.3
24	2.0	1.3	2.1	3.0	6.1	9.3	10.4	11.0	10.1	9.6	10.0	7.5
25	1.2	1.7	2.0	3.0	6.2	9.3	10.9	11.2	10.9	9.4	9.4	7.2
26	1.4	1.9	2.3	3.3	6.1	9.3	10.6	11.5	10.9	9.5	9.0	7.4
27	1.3	1.5	2.6	3.2	6.1	9.7	10.5	11.4	10.8	9.6	9.5	6.6
28	1.2	1.5	2.9	3.3	6.0	9.7	10.5	12.0	10.6	9.6	9.8	7.0
29	1.4		2.8	3.7	6.0	9.4	10.9	12.0	10.7	9.6	9.0	6.9
30	1.5		3.0	3.7	6.7	9.1	11.0	11.9	10.2	9.6	9.0	6.4
31	1.5		3.0		6.8		10.9	12.0		9.7		6.8
Mean	3.2	1.5	1.9	3.1	5.3	8.4	9.9	11.6	11.0	9.9	9.7	7.9

BIOLOGICAL BOARD OF CANADA

Daily and Monthly Mean Water Temperatures

Atlantic Coast of Canada

Sable Island -- 1935

Depth of mth	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	-0.5	-1.8	-1.7	1.9	3.8	5.8	14.5	13.4	14.5	9.8	10.8	7.4
2	0.0	-1.8	-1.5	1.5	3.6	6.9	13.3	12.6	14.3	11.1	11.3	6.8
3	0.3	-1.0	-1.0	1.0	3.5	7.8	13.9	12.3	14.8	10.0	8.3	5.0
4	0.5	-0.3	-1.7	0.9	3.1	8.4	12.5	13.5	15.3	12.3	8.3	5.3
5	-0.3	0.3	-1.5	0.3	3.8	8.5	11.0	14.5	14.4	10.5	9.8	4.5
6	0.8	-0.8	-1.3	0.3	3.3	8.0	10.5	13.4	14.4	10.1	10.5	4.0
7	2.0	-0.8	-0.8	0.3	3.8	8.0	10.5	13.8	13.9	10.1	9.0	3.4
8	2.3	-0.5	-0.8	0.9	3.8	8.6	11.5	14.9	13.6	9.3	9.0	3.5
9	2.9	0.3	-0.3	1.3	4.9	9.1	13.0	14.5	13.8	11.0	8.4	4.5
10	3.6	0.5	-0.3	0.9	4.8	8.5	13.8	15.4	13.0	10.8	8.1	5.3
11	3.3	0.0	0.3	1.4	5.4	9.4	13.8	16.0	13.1	11.6	9.3	5.0
12	1.0	-0.8	0.8	1.3	4.5	9.4	13.9	16.0	13.6	10.4	10.5	4.8
13	0.3	-0.3	1.0	1.8	3.3	10.0	12.0	16.4	12.5	10.4	10.8	4.5
14	0.0	-0.3	0.3	2.3	3.4	10.5	11.9	16.8	12.1	10.8	9.3	4.8
15	-0.8	0.4	0.3	2.5	6.1	9.4	12.3	17.5	13.0	12.0	7.8	4.8
16	-0.8	0.9	0.8	2.1	6.3	10.5	13.4	18.4	13.3	8.9	7.3	5.3
17	-0.8	0.0	0.3	2.4	6.3	9.4	12.8	18.8	11.5	9.0	7.0	4.8
18	-1.0	-1.0	0.3	2.3	3.8	10.0	12.3	19.8	12.3	10.0	8.5	4.0
19	-0.8	-0.8	0.8	2.9	3.3	9.6	11.8	19.8	13.3	10.5	7.3	4.3
20	-0.3	-1.3	1.3	2.9	4.5	9.4	13.4	18.8	14.3	11.0	6.8	4.0
21	0.3	-1.3	0.8	2.6	3.3	9.9	14.3	17.6	13.8	10.0	8.3	2.0
22	1.3	-1.7	0.6	2.6	3.4	10.9	14.3	17.3	13.8	11.0	8.5	1.0
23	0.8	-1.8	0.8	2.9	5.0	11.5	13.4	15.5	10.8	12.3	7.8	0.0
24	0.8	-1.7	0.3	3.1	3.5	12.0	12.4	14.8	10.4	9.8	6.3	0.0
25	0.0	-1.5	0.0	3.3	6.1	12.4	11.0	13.3	10.8	8.5	5.3	0.0
26	0.0	-0.8	-0.3	3.1	7.3	13.0	12.0	13.1	12.3	8.9	5.8	0.0
27	-0.3	-1.5	-0.3	3.6	7.8	13.3	13.3	14.0	11.8	8.5	3.5	-0.5
28	-1.3	-1.7	0.3	4.4	7.4	13.3	13.0	14.8	10.0	9.8	7.3	-0.3
29	-1.0		0.6	5.0	6.5	14.0	13.0	14.8	11.0	10.5	9.0	-0.8
30	-1.0		1.1	4.1	7.3	13.3	12.3	13.8	10.3	10.6	7.8	-1.0
31	-1.5		1.3		7.8		12.9	13.0		10.3		-0.5
Mean	0.3	-0.8	0.0	2.2	5.3	10.0	12.7	13.6	12.9	10.3	8.3	3.1

BIOLOGICAL BOARD OF CANADA

Daily and Monthly Mean Water Temperatures

Atlantic Coast of Canada

Sable Island -- 1935

Day of month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	1.3	0.4	0.5	1.0	1.1	4.3	9.7	16.0	18.3	14.1	11.1	
2	1.2	0.2	0.1	1.8	2.6	5.7	10.2	15.2	17.6	14.0	11.0	
3	1.1	1.8	1.0	1.2	3.8	6.6	11.3	15.9	16.9	14.1	10.9	
4	1.2	2.6	0.5	0.1	4.6	6.8	10.7	15.7	17.6	14.7	10.8	
5	0.0	0.1	0.4	0.2	4.7	7.6	11.1	14.7	18.3	13.7	10.8	
6	1.1	0.8	0.2	0.2	3.8	8.0	10.6	14.1	18.6	13.6	10.0	
7	1.2	0.5	0.5	0.5	4.7	6.8	11.0	14.9	18.9	13.8	11.0	
8	1.3	0.8	0.5	0.2	0.5	6.5	10.0	15.4	17.9	14.3	10.6	
9	1.2	0.5	0.5	0.2	5.9	6.9	10.1	15.8	17.6	13.3	11.1	
10	1.2	0.7	0.2	0.0	5.1	7.4	12.2	16.7	17.1	13.2	10.8	
11	1.2	1.3	0.1	0.2	4.8	6.6	12.5	16.9	17.5	13.4	10.9	
12	1.0	0.6	0.5	0.0	4.8	7.7	13.0	16.0	18.7	13.7	11.0	
13	0.0	0.9	0.8	0.1	3.9	8.6	12.1	16.7	17.7	13.8	10.7	
14	0.5	0.5	0.0	1.6	3.6	8.7	12.4	17.6	17.2	13.6	11.1	
15	0.5	0.2	0.1	2.5	3.1	8.6	13.5	17.5	16.7	12.9	9.0	
16	0.5	0.9	0.1	4.6	3.8	8.8	13.6	16.9	16.6	13.1	8.5	
17	0.5	0.5	2.1	3.5	3.7	9.0	12.8	16.5	15.9	12.6	8.2	
18	0.5	0.5	0.5	4.1	6.2	9.5	13.0	15.7	16.5	11.6	8.2	
19	0.5	0.4	0.2	2.5	5.3	9.1	12.1	16.7	17.0	11.3	8.3	
20	0.5	0.0	0.5	2.6	5.0	8.7	11.7	17.1	17.6	10.7	8.4	
21	0.5	0.1	0.5	0.2	5.9	8.7	11.2	17.1	17.8	10.5	8.4	
22	0.4	0.5	0.5	0.6	4.6	8.7	12.0	17.7	18.5	10.4	8.1	
23	0.4	0.8	0.5	0.1	5.7	8.8	12.5	18.5	17.5	10.5	8.2	
24	0.2	0.1	0.5	2.6	5.5	9.3	13.2	18.6	16.6	10.7	7.9	
25	0.2	0.9	0.2	3.5	6.7	10.3	13.5	18.2	16.4	10.8	8.0	
26	0.3	1.9	0.5	2.7	5.8	9.8	13.4	17.6	15.6	11.0	8.0	
27	0.4	1.9	1.2	0.0	7.2	10.2	13.5	17.1	15.5	10.2	7.9	
28	0.5	0.5	0.1	1.2	4.6	10.6	13.7	17.7	16.0	10.4	7.2	
29	0.1		0.2	3.5	4.9	10.0	13.0	17.9	16.6	10.6	7.8	
30	0.6		0.5	1.0	7.5	9.8	16.2	18.6	16.7	10.7	8.0	
31	0.5		0.1		7.0		13.9	18.8		10.7		
mean	0.7	0.8	0.5	1.4	4.9	8.3	12.6	16.8	17.2	12.3	9.4	

BIOLOGICAL BOARD OF CANADA

Daily and Monthly Mean Water Temperatures

Atlantic Coast of Canada

Sentri Island -- 1935

Day of Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	1.3	-1.8	-1.0	-0.8	0.0	2.5	7.8	15.5	18.2	13.1	10.0	7.2
2	1.4	-1.0	-1.0	-1.0	0.0	3.1	8.8	15.6	18.5	13.0	10.0	7.3
3	0.5	-0.7	-1.0	-0.9	0.0	4.0	11.5	15.5	18.6	13.0	9.4	7.0
4	1.0	-0.7	-1.1	-1.0	1.0	4.1	12.2	16.4	17.1	13.0	8.8	6.1
5	-0.7	-0.7	-1.1	-1.0	0.0	4.3	10.3	17.5	16.0	13.1	9.5	6.0
6	0.1	-1.2	-1.0	-1.0	0.0	5.0	11.8	17.4	16.1	13.0	9.8	5.0
7	0.7	-1.8	-1.2	-0.9	0.0	4.4	12.2	17.1	16.0	12.9	9.1	5.0
8	1.5	-1.8	-1.2	-0.8	-0.1	4.5	12.4	18.2	16.1	12.7	8.6	4.9
9	1.8	-1.3	-1.2	-0.7	-0.4	5.1	12.5	18.5	16.2	11.1	8.0	4.1
10	1.9	-1.1	-1.1	-1.0	-0.4	5.4	12.8	17.4	16.0	11.2	7.8	5.0
11	2.1	-1.0	-1.1	-0.9	-0.3	5.4	13.0	17.5	15.3	11.7	7.8	5.0
12	1.9	-1.1	-1.0	-0.9	-0.4	5.0	13.0	17.6	15.0	11.5	7.9	5.0
13	0.0	-1.2	-1.0	-1.0	-0.5	5.0	12.8	17.4	15.0	11.3	8.5	5.0
14	0.0	-1.1	-1.0	-0.9	-0.5	4.9	12.8	17.5	15.0	11.2	8.7	5.0
15	-0.2	-1.2	-1.0	-0.8	-0.4	5.0	12.7	17.8	15.0	12.0	8.1	5.0
16	-0.4	-1.0	-1.0	-0.2	-0.4	5.5	12.1	16.3	15.0	11.4	7.9	4.1
17	-1.0	-1.1	-0.8	-0.2	-0.3	7.0	12.1	16.5	14.9	11.1	7.6	4.0
18	-1.4	-1.0	-0.9	-0.6	-0.5	7.0	12.5	18.6	14.9	11.0	6.9	3.9
19	-1.5	-1.1	-1.0	-0.2	0.2	7.3	13.7	18.8	14.7	11.0	6.7	3.6
20	-1.4	-1.0	-1.0	-0.1	-0.3	7.3	14.4	19.2	14.4	11.0	6.7	3.3
21	-1.3	-1.0	-1.0	-0.1	-0.2	8.0	15.2	19.7	14.2	10.9	7.4	3.4
22	-0.5	-1.1	-0.8	-0.3	0.0	7.1	15.4	18.0	14.6	10.7	7.7	3.6
23	-0.8	-1.1	-0.8	-0.4	-0.3	7.3	15.1	18.0	14.0	10.8	7.8	2.4
24	-0.4	-1.0	-0.9	-0.4	0.6	7.4	15.1	18.1	13.7	10.8	7.0	3.1
25	-0.1	-1.0	-1.0	-1.0	1.1	7.0	14.1	18.0	13.8	10.2	7.0	3.0
26	-0.9	-1.0	-1.0	-1.0	1.1	7.2	15.0	17.5	13.5	9.2	6.9	3.5
27	-1.0	-1.0	-1.0	-0.5	2.0	8.1	15.7	17.4	13.5	9.5	6.1	3.6
28	-1.3	-1.0	-1.0	-0.8	2.3	8.2	15.5	17.4	13.1	10.0	6.3	2.2
29	-1.1		-1.0	-0.2	2.5	8.1	15.6	17.8	13.0	10.0	6.2	2.0
30	-1.7		-1.0	-0.1	2.2	7.8	15.3	17.9	13.1	10.0	7.1	2.0
31	-1.9		-0.8		2.4		15.4	17.8		9.9		2.0
Mean	-0.1	-1.1	-1.0	-0.7	0.3	5.9	13.2	17.5	15.2	11.3	7.9	4.3

BIOLOGICAL BOARD OF CANADA

Daily and Monthly Mean Water Temperatures

Atlantic Coast of Canada

Entry Is. -- 1935

of th	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
					0.6	5.5	12.0	16.9	17.5	11.8	8.4	4.9
					0.4	5.8	12.6	18.0	17.4	11.6	8.6	4.5
					-0.9	6.4	11.5	17.5	17.5	10.8	7.9	3.9
					-0.6	7.1	13.4	17.6	17.6	11.3	7.6	2.6
					0.8	6.8	12.5	18.4	16.4	11.5	8.0	1.5
					2.4	7.9	11.4	17.6	16.9	11.1	8.5	1.4
					3.1	9.0	13.4	17.5	16.9	11.0	7.8	0.8
					2.9	9.0	12.6	19.5	16.4	11.4	7.6	0.8
					3.1	10.1	12.4	18.5	15.9	10.9	6.6	2.0
					3.0	11.3	13.3	18.8	15.4	11.4	6.6	2.6
					3.4	11.0	14.9	19.1	15.6	10.8	7.4	2.8
					3.8	10.5	13.6	18.4	15.5	10.5	7.1	2.6
					3.3	11.8	13.6	18.5	15.5	9.5	6.9	1.9
					3.5	11.4	14.1	17.9	15.3	9.8	6.8	2.1
					4.3	10.0	15.0	19.8	14.4	10.0	6.6	2.0
					4.4	10.1	14.8	19.1	13.8	9.4	5.6	1.8
						9.8	14.9	20.1	13.1	9.3	4.5	2.3
						12.5	14.9	20.9	12.6	9.6	5.0	1.4
						10.5	14.3	19.3	13.0	9.3	5.1	0.6
						9.8	14.8	20.6	12.8	9.6	5.0	0.5
						9.5	16.1	20.6	13.1	9.0	5.8	1.1
						10.0	15.0	18.4	13.4	9.4	5.6	0.4
					5.1	10.4	14.4	18.0	12.5	9.9	5.5	-0.4
					6.5	10.8	15.1	18.1	11.0	9.5	3.6	-0.5
					6.1	10.6	16.0	17.6	12.9	8.5	4.5	-0.5
					6.0	11.6	17.4	17.8	13.1	7.5	4.0	
					6.5	12.1	16.9	17.8	12.5	6.1	3.5	
					5.9	11.1	17.6	17.2	11.5	7.5	3.6	
					4.6	9.9	17.5	16.9	11.4	8.1	4.8	
					5.4	10.5	17.6	16.5	11.5	8.1	4.9	
					5.8		17.1	16.9		8.1		
					3.6	9.8	14.6	18.4	14.4	9.7	6.1	1.1

BIOLOGICAL BOARD OF CANADA

Daily and Monthly Mean Water Temperatures

Atlantic Coast of Canada

North Pt. -- 1935

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
-1.6		-1.6	-1.1	0.0	13.8	15.4	20.8	18.5			
-1.6	-1.3	-1.4	-1.0	-0.1	15.8	16.0	20.9	17.4			
-1.9	-1.3	-1.4	-1.3	2.5	14.4	17.6	20.3	17.6			
-1.6	-1.1	-1.6	-1.4	0.0	14.4	20.3	19.5	17.8			
-1.6	-1.8	-1.5	-1.4	2.5	14.0	20.5	20.1	14.9			
-1.5	-1.6	-1.5	-1.4	1.0	13.9	15.6	18.5	17.8			
-0.5	-1.3	-1.4	-1.1	3.4	14.3	17.4	18.0	16.0			
0.0	-1.6	-1.5	-0.6	3.5	13.5	16.0	19.9	16.5			
-0.9	-1.3	-1.5	-0.6	6.5	14.8	18.3	19.6	16.5			
-1.1	-1.5	-1.3	-0.5	5.4	16.0	21.0	20.6	15.8			
-0.5	-1.8	-0.6	-0.5	6.0	14.5	21.3	22.3	15.1			
-1.4	-1.5	-1.0	-0.5	6.3	13.3	22.5	20.4	15.5			
-1.6	-1.8	-1.1	-0.6	3.8	16.0	21.6	20.8	15.6			
-1.5	-1.6	-1.5	0.0	7.4	17.0	23.5	21.6	14.5			
-1.8	-1.4	-1.1	0.4	7.0	13.9	22.0	23.1	13.3			
-1.4		-0.5	0.0	6.9	17.0	19.0	22.1				
-0.8	-1.4	0.3	-0.1	9.4	13.9	21.8	23.8				
-1.5	-1.4	0.0	-0.1	8.8	12.4	23.9	24.0	13.5			
-1.4	-1.5	-0.3	0.0	8.8	14.5	22.8	24.1	14.3			
-1.3	-1.6	-0.6	0.0	9.3	12.1	21.0	24.0	13.8			
-1.4	-1.6	-0.8	-0.1	11.0	12.8	22.1	23.4	14.6			
-0.5	-1.8	-0.5	-0.1	7.8	13.5	19.6	19.9	14.9			
-1.6	-1.8	-0.8	-0.3	7.9	15.6	20.4	20.6	12.0			
-1.0	-1.6	-1.0	-0.3	10.5	17.8	21.5	17.5	12.3			
-1.4	-1.6		-0.3	9.3	18.0	22.1		13.5			
-1.3		-1.4	0.3	9.5	17.5	21.8	13.5	13.1			
-1.6		-1.5	-0.1	9.5	19.0	22.5	18.0	14.5			
-1.4	-1.6	-1.1	-0.3	10.3	17.9	22.5	19.0	12.5			
-1.5		-1.5	-0.1	10.5	18.9	21.9	19.5	13.0			
-1.8		-1.0	-0.3	10.3	19.8	20.0	17.9	12.3			
-1.8		-0.8		12.9		20.8	16.0				
-1.3	-1.6	-1.0	-0.5	6.7	15.3	20.4	20.3	15.0			

BIOLOGICAL BOARD OF CANADA

Daily and Monthly Mean Water Temperatures

Atlantic Coast of Canada

St. Mary's Island - 1935

of th	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	-1.6	-1.8	-1.8	-1.5	-0.4	5.9	5.0	10.4	13.4	7.0	5.0	2.9
	-1.6	-1.8	-1.7	-1.6	-0.5	4.1	8.9	10.6	12.9	7.1	5.0	2.5
	-1.7	-1.5	-1.6	-1.3	-0.2	3.0	5.9	10.8	13.6	6.5	4.9	1.9
	-1.9	-1.4	-1.7	-1.6	0.4	2.1	6.5	12.1	13.4	6.8	4.5	1.1
	-1.8	-1.7	-1.7	-1.7	0.6	3.0	8.4	13.3	13.6	6.9	4.4	0.9
	-1.6	-1.9	-1.7	-1.5	0.3	5.2	9.3	12.2	13.4	6.6	4.7	0.8
	-1.6	-1.9	-1.6	-1.3	1.6	5.9	9.3	13.7	13.5	6.3	4.6	0.0
	-1.5	-1.7	-1.7	-1.4	1.3	8.1	8.6	14.0	13.5	6.5	4.8	-1.0
	-1.8	-1.6	-1.8	-1.4	3.3	6.9	8.2	14.8	13.7	5.8	4.0	-1.3
	-1.9	-1.4	-1.7	-1.0	2.8	8.6	9.4	15.9	12.9	5.6	3.6	-0.3
	-1.4	-1.6	-1.6	-1.3	1.5	8.0	10.7	16.1	13.2	6.3	4.0	-0.6
	-1.6	-1.8	-1.6	-1.1	1.7	6.9	9.4	13.0	11.5	4.4	3.3	0.9
	-1.6	-1.8	-1.5	-1.0	2.0	8.3	8.9	12.6	10.8	4.6	2.4	0.1
	-1.8	-1.7	-1.6	-1.3	2.6	7.3	9.9	13.0	11.8	5.6	2.8	-0.2
	-1.9	-1.7	-1.7	-0.9	3.7	7.1	10.0	12.7	11.4	5.4	2.8	-0.1
	-1.9	-1.7	-1.7	-0.3	2.2	9.6	11.1	12.1	9.6	4.8	2.1	-0.6
	-1.9	-1.6	-1.5	-0.4	2.8	8.1	9.3	12.0	8.0	6.2	1.8	-0.3
	-1.9	-1.7	-1.5	-0.7	3.1	7.6	9.1	14.1	8.9	6.0	1.8	-0.4
	-1.9	-1.8	-1.7	-0.8	1.9	8.3	9.8	13.3	9.1	5.6	3.0	-0.2
	-1.9	-1.7	-1.6	-0.9	1.5	8.8	11.0	14.9	9.6	5.6	2.5	-0.1
	-1.7	-1.6	-1.5	-1.0	3.4	8.9	10.9	14.2	9.9	5.2	3.1	-0.6
	-1.6	-1.8	-1.3	-1.1	3.3	9.6	2.9	13.3	9.4	5.5	3.1	-0.2
	-1.9	-1.9	-1.4	-1.2	3.1	6.9	5.9	14.0	8.8	5.9	2.9	0.2
	-1.9	-1.7	-1.4	-1.2	3.7	9.4	6.4	12.7	8.2	5.5	2.0	0.1
	-1.7	-1.7	-1.4	-0.9	4.4	10.6	8.8	11.6	7.4	3.2	1.8	-0.1
	-1.7	-1.7	-1.5	-0.5	2.0	11.5	11.7	11.7	7.7	2.7	2.5	-0.1
	-1.9	-1.8	-1.3	-0.3	2.2	11.7	12.4	12.2	6.8	2.5	1.9	-0.2
	-1.9	-1.7	-1.3	-1.0	1.8	7.1	13.0	12.4	7.2	2.3	1.6	-0.3
	-1.9		-1.5	-0.1	2.3	8.1	12.3	11.9	7.0	5.1	2.9	-1.0
	-1.9		-1.3	1.5	3.6	6.2	12.0	12.4	7.2	5.1	2.5	-1.3
	-1.8		-1.2		3.8		9.9	12.4		5.0		-1.4
an	-1.8	-1.7	-1.6	-1.0	2.1	7.4	9.1	13.0	10.6	5.4	3.2	0.0

BIOLOGICAL BOARD OF CANADA

Daily and Monthly Mean Water Temperatures

Atlantic Coast of Canada

Hall's Harbour -- 1935

7 of th	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1				0.0	3.7	7.5	9.5	13.0	14.5	13.0	10.5	7.5
2				0.0	3.7	7.5	9.5	12.8	14.5	13.0	10.5	7.5
3				0.5	3.7	7.5	9.5	13.0	15.0	13.0	10.0	7.0
4				1.0	3.5	7.5	10.1	13.5	15.0	13.0	10.0	6.0
5				0.5	3.5	7.5	10.5	13.5	15.0	12.5	10.5	5.5
6				1.1	3.7	7.5	11.0	13.5	15.0	12.5	10.5	5.0
7				1.5	3.7	7.5	11.0	13.0	15.0	12.0	10.0	5.5
8				2.0	3.7	8.0	11.2	13.5	15.0	12.5	10.0	5.0
9				2.2	4.5	8.0	11.5	13.5	15.0	12.5	9.5	5.5
10				2.0	4.7	7.5	11.5	14.0	14.0	12.0	9.5	5.0
11				2.0	5.0	8.0	11.5	14.0	14.0	12.0	10.0	5.0
12				1.7	5.0	8.0	11.5	14.0	14.5	11.5	9.5	5.0
13				2.5	5.0	8.5	11.7	14.0	14.5	11.5	9.5	5.0
14				2.0	5.2	8.5	11.7	14.0	15.0	11.5	9.5	5.0
15				2.0	5.9	8.5	11.7	14.5	15.0	11.0	9.5	5.0
16				1.7	5.9	8.5	12.0	14.5	13.8	11.0	9.0	5.5
17				2.0	6.5	8.5	12.0	15.0	13.3	11.0	9.0	5.0
18				2.0	6.5	8.0	12.0	15.0	13.5	11.0	8.0	5.0
19				2.0	6.7	8.0	12.0	15.0	13.5	11.0	8.0	4.5
20				2.5	6.7	8.0	12.5	15.0	13.5	11.0	9.0	4.5
21				3.0	6.7	8.0	12.5	15.0	13.5	11.0	9.5	3.5
22				3.0	6.6	8.5	12.5	15.0	13.5	11.0	9.5	3.0
23				3.0	6.7	8.5	12.5	15.0	13.0	11.0	9.0	3.0
24				3.0	6.7	8.5	12.5	14.0	13.0	10.5	8.5	3.0
25				3.0	6.7	9.0	12.5	14.0	13.0	10.5	8.0	2.5
26				3.0	7.0	9.0	12.5	14.5	13.0	10.5	8.0	3.0
27				3.5	7.0	9.2	12.5	14.5	13.0	10.4	7.5	2.5
28				3.5	7.5	9.2	12.8	14.5	13.0	11.0	8.0	2.0
29				3.5	7.5	9.5	13.0	14.5	13.0	11.0	8.0	2.0
30				3.0	7.5	9.5	12.5	14.5	13.0	10.5	7.5	2.0
31					7.5		12.5	14.5		10.5		2.0
Jan				2.1	5.6	8.3	11.7	14.1	14.0	11.3	9.2	4.4

BIOLOGICAL BOARD OF CANADA

Daily and Monthly Mean Water Temperatures

Atlantic Coast of Canada

St. John's Bay -- 1935

of h	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
						4.5	9.5	12.5	13.3			
						4.3	8.5	13.3	13.5			
						4.3	10.3	12.5	13.5			
						4.0	7.0	12.3	13.3			
						4.0	7.8	13.0	13.9			
						4.5	9.3	13.5	13.1			
						5.5	9.5	13.5	13.9			
						6.3	10.0	14.3	13.5			
						6.8	10.4	14.8	13.3			
						7.5	10.8	13.3	13.5			
						7.8	11.8	13.8	13.4			
						7.8	10.0	13.3	12.8			
						6.9	11.3	14.8	12.9			
						7.5	9.5	13.0	12.0			
						6.9	12.3	13.3	11.6			
						8.3	11.3	13.5	11.3			
						8.5	12.3	14.8	10.3			
						8.0	12.8	13.5	10.8			
						9.0	10.3	14.5	13.4			
						9.3	11.5	12.8	10.8			
						9.5	12.3	14.8	10.8			
						10.3	11.3	13.3	10.5			
						10.0	11.8	13.3	10.0			
						10.6	10.8	13.3	10.5			
						9.5	11.3	13.0	9.8			
						9.8	11.3	12.5	10.3			
						11.3	12.3	13.0	11.8			
						11.0	13.3	13.3	9.5			
						9.9	13.3	13.8	8.8			
						9.5	13.0	13.3	9.5			
							12.3	13.0				
a						7.8	11.0	13.8	11.9			