THE "MICHAEL SARS"

NORTH ATLANTIC DEEP SEA EXPEDITION 1910

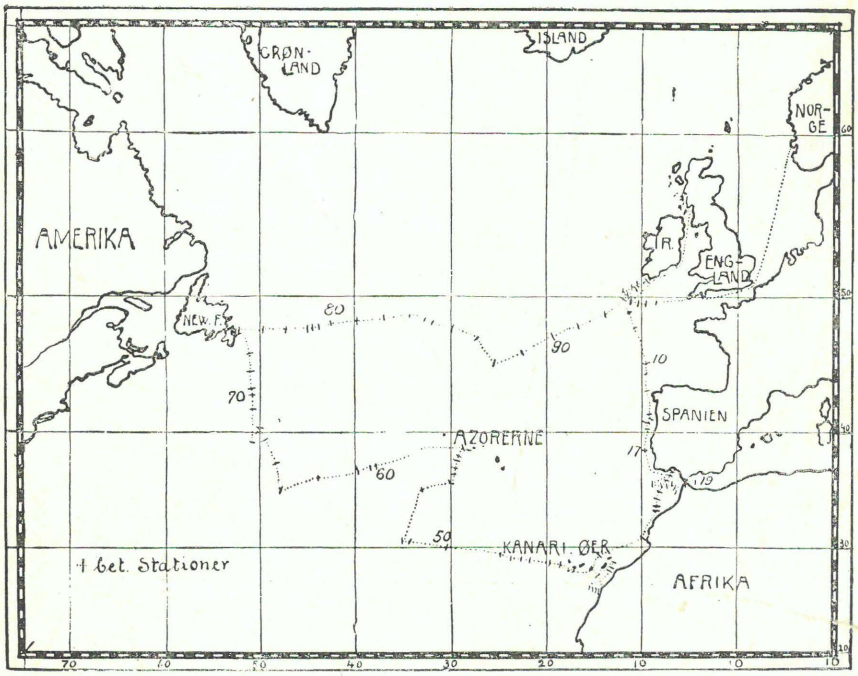
CARRIED OUT UNDER THE AUSPICES OF THE NORWEGIAN GOVERNMENT

AND THE SUPERINTENDENCE OF

SIR JOHN MURRAY AND **DR. JOHAN HJORT**

LIST OF OBSERVING STATIONS AND PARTICULARS OF THE APPARATUS EMPLOYED

BERGEN – 1910


GRØN-
LAND
ISLAND
NOR-
GE
AMERIKA
R.
ENG-
LAND
NEW F.
80
90
10
70
SPANIEN
AZOREERNE
60
50
KANARI ØER
4 bet. Stationer
AFRIKA
70
60
50
40
30
20
10
0
10
60
50
40
30
20
10

THE "MICHAEL SARS"

NORTH ATLANTIC DEEP SEA EXPEDITION 1910

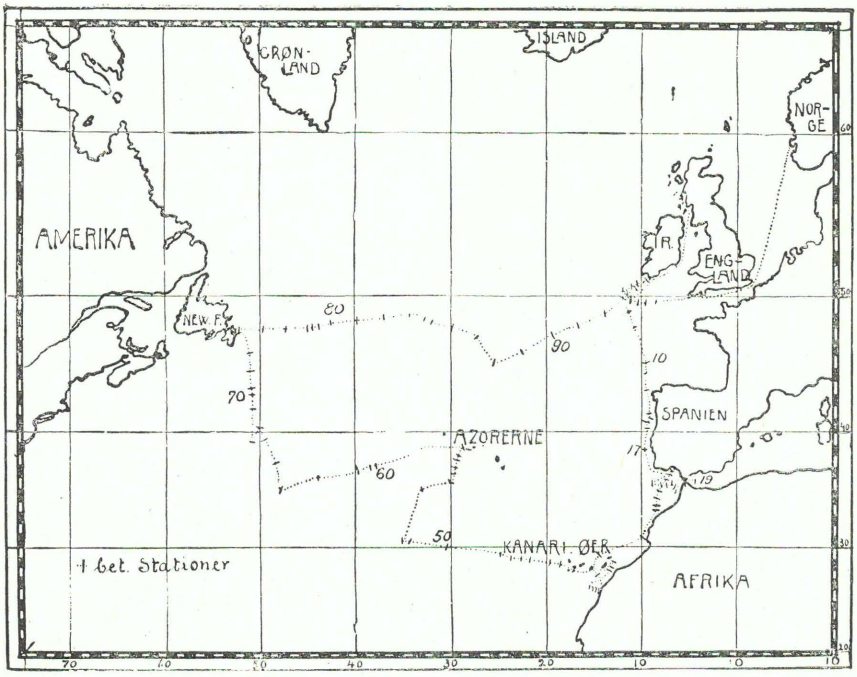
CARRIED OUT UNDER THE AUSPICES OF THE NORWEGIAN GOVERNMENT

AND THE SUPERINTENDENCE OF

SIR JOHN MURRAY AND **DR. JOHAN HJORT**

LIST OF OBSERVING STATIONS AND PARTICULARS OF THE APPARATUS EMPLOYED

BERGEN – 1910


GRØN-
LAND
ISLAND
NOR-
GE
AMERIKA
R.
ENG-
LAND
NEW F.
80
90
10
70
SPANIEN
AZORERNE
60
17
19
50
KANARI ØER
4 bet. Stationer
AFRIKA
70
60
50
40
30
20
10
0
10

Notes and Abbreviations.

All depths are given in metres.

Soundings — carried out by Captain Iversen. f. sd. = fine sand, y. m. = yellow mud, hard b. = hard bottom, sd. = sand, sh. = shingle, cl. = clay, st. = stones, $\overset{\cdot}{2000}$ = 2000 metres of wire out without bottom.

Physical material, collected by Mr. B. Helland-Hansen by means of Ekman's or Pettersson-Nansen's waterbottles. Temperatures read by Richter's reversing thermometers and Nansen thermometers.

St. w. = Sterilized water-samples.

C. m. = Current measurements with Ekman's current-meter.

Ph. = Photometric experiments with Helland-Hansen's photometer.

Phytoplankton — collected by Professor H. H. Gran.

Vertical hauls made by Nansen's closing net of $^1/_2$ meter's diameter. About 60 meshes per square millimeter.

Samples filtrated (F) through sand filters and centrifuged (C) by a steam centrifuge.

"Vertical haul 140—80" means a haul from 140 to 80 metres of depth.

Zooplankton collected by Dr. Johan Hjort and Mr. Einar Koefoed.

1 sn. = silk net of 1 meter's diameter. End part with meshes of $^1/_4$ square millimeter.

$^3/_4$ sn. = silk net of $^3/_4$ meter's diameter and same quality of silk cloth.

y. = Dr. C. G. Joh. Petersen's young fish trawl.

3 ln. = Large net. Ring 3 metres in diameter. Net a shrimp's net.

cn = Nansens's closing net $^1/_2$ meter diameter, fine silk cloth.

In the list of vertical hauls "1 sn. 150—100" means, that a vertical closing silk net — 1 meter in diameter — has been used from 150 to 100 metres.

In the list of horizontal hauls the abbreviation "4 hours y 1000, 2000" means that during four hours 2 Youngfish trawls have been towed with a wire-rope out at 1000 and 2000 metres respectively.

Trawl — An otter-trawl of 50 feet head-rope. C = Catcher.

Number of Station	Date	Locality	Sounding, (Depth, Deposits)	Material for Physical Research	
				Serial Temperatures and Watersamples Depths in meters	Other Material or Observations Depths
				A. From Plymouth	
1	9/4	49° 27′ N, 8° 36′ W	146 f. sd.	0, 25, 50, 100, 140	—
2	10/4	49° 30′ N, 9° 42′ W	149	0, 25, 50, 100, 140	—
3	10/4	49° 32′ N, 10° 49′ W	184 f. sd.	0, 25, 50, 100, 150, 180	—
4	10/4—11/4	49° 38′ N, 11° 35′ W	923 sd., mud.	0, 25, 50, 100, 200, 300, 500, 700, 900	St. w. 25, 200, 500, 700
5	16/4	51° 24′ N, 9° 27′ W	68	0, 10, 25, 50, 65	—
6	16/4—17/4	50° 33′ N, 10° 42′ W	168	0, 25, 50, 100, 165	—
7	17/4	49° 54′ N, 12° 10′ W	1813	0, 50, 100, 200, 500, 1000, 1400, 1750	—
8	18/4	48° 53′ N, 11° 31′ W	—	0, 100, 500, 1000	—
9	18/4	47° 49′ N, 10° 52′ W	—	0, 100, 500, 1000	—
10	19/4—21/4	45° 26′ N, 9° 20′ W	4700 y. m.	0, 50, 100, 200, 300, 500, 700, 1000, 1500, 2000, 3000, 4500	St. w. 500, 700, 1000 m.
11	21/4	44° 25′ N, 9° 18′ W	—	0, 100, 200, 500, 700, 1000	—
12	21/4	43° 11′ N, 9° 26′ W	166	0, 10, 25, 50, 100, 150, 160	—
13	22/4	41° 32′ N, 9° 05′ W	78	0, 10, 25, 50, 70, 75	—
14	22/4	41° 15′ N, 8° 54′ W	69	— — —	—
15	22/4—23/4	40° 56′ N, 9° 28′ W	—	— — —	—
16	23/4	40° 15′ N, 9° 23′ W	154	0, 25, 50, 100, 150	—
17	23/4	38° 20′ N, 9° 43′ W	1860 mud.	0, 25, 50, 100, 200, 300, 500, 1000, 1500, 1800	St. w. 25, 200, 500, 1000, 1500, 1800
18	29/4—30/4	35° 56′ N, 5° 43′ W	ca. 400 rock	Series A. 0, 25, 50, 100, 200, 300, 400 — B. 0, 25, 50, 100 — C. 0, 25, 50, 100, 200, 300 — D. 0, 25, 50, 100, 200	C. m. 5, 10, 25, 50, 100, 200, 300, 400
				B. From Gibraltar	
19	2/5—3/5	36° 5′ N, 4° 42′ W	—	Series A. 0, 25, 50, 100, 150, 200, 300, 400, 500, 600, 750, 950 — B. 0, 50, 100, 150 — C. 0, 50, 100, 150, 250	St. w. 25, 100, 200, 500, 950 C. m. 5, 25, 100, 200, 400
20	5/5	35° 25′ N, 6° 25′ W	141 f. sd.	0, 10, 25, 50, 100, 137	—
21	5/5	35° 31′ N, 6° 35′ W	535 y. sd.	0, 500	St. w. 500
22	5/5	35° 42′ N, 6° 51′ W	835 mud	0, 50, 100, 200, 300, 400, 500, 600, 700, 800	—

Phytoplancton		Zooplancton		Fishing Gear
Vertical Hauls F. T. Depths	Filtrated (F) or Centrifuged (C) Samples Depths	Vertical Hauls, Gear and Depths	Horizontal Hauls, Time, Gear and Lengths of wire out	
to Gibraltar.				
40—0, 80—40, 140—80	F. 0	— —	— — —	Trawl
45—0	—	1 sn. 50—0, 100—50, 160—100	— — —	
40—0, 80—40, 160—110, 160—80	F. 0, 25, 100, 190	— —	— — —	Trawl
50—0	—	— —	— — —	Trawl
Horizontal 0 m.	—	— —	10 minutes 1 sn 0	
— —	—	— —	— — —	
20—0, 50—20, 100—50	—	— —	— — —	Trawl
— —	—	— —	— — —	
50—0	—	— —	— — —	
100—0, 200—100, 250—150, 500—200, 1000—500	F. 0, 50, 100, 200	1 sn. 200—0, 500—180	1 1/2 Hour 1 sn. 0, 2 1/4 Hours 1 sn. 100, 200, y. 300 1 Hour 1 sn. 0, 3 Hours 1 sn. 970, y. 1570	Trawl
50—0	—	— —	— — —	
50—0	—	— —	— — —	
40—0, 75—40	F. 0	1 sn. 40—0, 75—40	— — —	
— —	—	— —	— — —	Trawl
— —	—	— —	1 Hour 40 min. 1 sn. 0, 100, 200, 600, y. 300	
— —	—	— —	— — —	
— —	—	— —	— — —	
50—0, 100—50, 200—100, 350—200	—	4 ln. 350—0	1/4 Hour 1 sn. 0	
to Gran Canaria.				
50—0, 100—50, 200—0, 400—200	F. 25, 150	1 sn. 200—100, 300—200, 900—300 4 sn. 900—0	10 min. 1 sn. 0 8 Hours y. 400	Petersens Trawl
80—0, 130—80	—	— —	— — —	Trawl
— —	—	— —	— — —	Trawl
50—0, 100—50, 200—100, 500—200	—	1 sn. 600—0	— — —	

Number of Station	Date	Locality	Sounding, (Depth, Deposits)	Material for Physical Research	
				Serial Temperatures and Watersamples Depths in meters	Other Material or Observations Depths
23	5/5—6/5	35° 32′ N, 7° 7′ W	1215 y. m.	0, 25, 50, 100, 200, 300, 400, 600, 800, 1000, 1200	—
24	6/5—7/5	35° 34′ N, 7° 35′ W	1615 y. m.	0, 1575	—
25 A	7/5	35° 36′ N, 8° 25′ W	2300 y. m.	0, 2150	—
25 B	8/5	35° 46′ N, 8° 16′ W	2055 y. m.	0, 25, 50, 100, 200, 300, 400, 500, 600, 750, 875, 1000, 1200, 1400, 1600, 2000	St. w. 25, 500, 1000, 1400
26	8/5	36° 53′ N, 6° 48′ W	50	0, 10, 25, 40, 50	—
27	9/5	36° 31′ N, 7° 1′ W	—	0, 25, 50, 100, 200, 300, 400, 500	—
28	9/5	36° 0′ N, 7° 19′ W	—	0, 25, 50, 100, 200, 300, 400, 500, 600, 700, 800, 900	—
29	9/5—10/5	35° 10′ N, 7° 55′ W	—	0, 25, 50, 100, 200, 300, 400, 600, 800, 1000, 1200	—
30	10/5	34° 38′ N, 8° 22′ W	—	0, 25, 50, 100, 200, 300, 400, 600, 700, 800, 900, 1000, 1100, 1200, 1400	—
31	10/5	33° 47′ N, 8° 27′ W	184 hard b.	0, 10, 25, 40, 50, 100, 150, 180	—
32	10/5	33° 27′ N, 8° 32′ W	105	0, 25, 40, 50, 80, 100, 110	—
33	11/5	31° 17′ N, 10° 6′ W	100 sd., sh.	0, 50, 100	—
34	13/5—14/5	28° 52′ N, 14° 16′ W	2170 sd., y. m.	0, 25, 50, 100, 200, 300, 400, 500, 700, 1000	—
				C. Between Gran Canaria	
35	18/5—19/5	27° 27′ N, 14° 52′ W	2603 y. m.	0, 10, 25, 50, 100, 200	—
36	19/5—20/5	26° 12′ N, 14° 26′ W	10	0, 2, 5, 10	—
37	20/5	26° 6′ N, 14° 33′ W	39 sh.	0, 10, 25, 39	—
38	20/5	26° 3′ N, 14° 36′ W	77 red sd., sh.	0, 10, 50, 75	—
39 A	20/5—21/5	26° 3′ N, 15° 0′ W	214 f. grey sd.	0, 10, 25, 100, 200, 210	—
39 B	21/5	26° 3′ N, 15° 0′ W	267—280 f. grey sd.	— — —	—
40	22/5—23/5	28° 15′ N, 13° 29′ W	1197 y. m.	0, 10, 25, 50, 100, 200, 300, 400, 500, 700, 900, 1000, 1100, 1180	—
41	23/5	28° 8′ N, 13° 35′ W	1365 y. m.	— — —	—
42	23/5—24/5	28° 2′ N, 14° 17′ W		— — —	—

Phytoplancton		Zooplancton		Fishing Gear
Vertical Hauls F. T. Depths	Filtrated (F) or Centrifuged (C) Samples Depths	Vertical Hauls, Gear and Depths	Horizontal Hauls, Time, Gear and Lengths of wire out	
50—0, 100—50, 200—100	—	1 sn. 500—0	6 1/2 Hours 1 sn. 200, y. 400, 1500	Trawl
— —	—	— —	— — —	Trawl
— —	—	— —	1 Hour 1 sn. 0, 3 Hours, 1/2 sn. 2600	Trawl
50—0, 100—50, 200—100	—	— —	5 Hours 1/2 sn. 3400	Trawl
50—0	—	1 sn. 50—0	10 min. 1 sn. 0	
50—0, 100—50, 200—100	—	1 sn. 400—0	10 min. 1 sn. 0	
100—0, 200—0, 500—200	—	1 sn. 200—0, 500—200, 900—500	10 min. 1 sn. 0	
100—0	—	— —	1 1/4 Hour 1 sn. 0, 200, y. 400 1/2 sn. 1100, y. 2000	
200—0	F. 0	1 sn. 550—0	— — —	
180—0	F. 25	sn. n. 200—0	10 min. 1 sn. 0	
114—0	—	1 sn. 100—0	10 min. 1 sn. 0	
Horizontal: 0	F. 0	— —	— — —	
50—0, 100—50, 200—100, 500—200	—	1 sn. 200—0, 850—200, 1920—1000	4 Hours y. 400, 1/2 sn. 600, y. 1000	

and Cape Bojador (Africa).

100—0, 200—100, 500—100	—	4 sn. 2400—0	3/4 Hour 1 sn. 0, 2 Hours 1/2 sn. 4300	Trawl
40—0	F. 0	— —	— — —	Seine, Hand-line
20—0, 40—5	—	— —	10 min. 1 sn. 0	Trawl
40—0, 80—40	—	— —	10 min. 1 sn. 0, 1 1/2 Hours 1 sn. 60, 140, 1/2 sn. 215, y. 215	Trawl, Hand-line
100—0, 220—100	—	1 sn. 200—0	10 min. 1 sn. 0, 7 Hours 1 sn. 75, 150, 1/2 sn. 240, y. 300	
— —	—	— —	— — —	
— —	—	1 sn. 425—0, 700—400, 1000—800	— — —	Trawl
100—0, 200—100	—	— —	— — —	Trawl
1000—2000	—	— —	10 min. 1 sn. 0, 7 Hours 1 sn. 100, 200, y. 300, 1/2 sn. 500, y. 900	

Number of Station	Date	Locality	Sounding, (Depth, Deposits)	Material for Physical Research	
				Serial Temperatures and Watersamples Depths in meters	Other Material or Observations Depths
				D. From Gran Canaria	
43	$^{27}/_{5}$	28° 2′ N, 17° 18′ W	—	— — —	—
44	$^{28}/_{5}$	28° 37′ N, 19° 8′ W	—	0, 25, 50, 100, 200, 300, 400, 500, 600, 800, 1000, 1200, 1600, 2000	—
45	$^{28}/_{5}$—$^{29}/_{5}$	28° 42′ N, 20° 0′ W	—	— — —	—
46	$^{29}/_{5}$	28° 56′ N, 21° 45′ W	—	0, 25, 50, 100, 200, 300, 400, 500, 600, 800, 1000, 1200, 1600, 2000	—
47	$^{30}/_{5}$	29° 2′ N, 22° 53′ W	5160 y. m.	— — —	C. m. 10, 100, 200, 300, 400
48	$^{31}/_{5}$	28° 54′ N, 24° 14′ W	—	— — —	—
49 A	$^{1}/_{6}$	29° 6′ N, 25° 2′ W	—	— — —	—
49 B	$^{1}/_{6}$	29° 8′ N, 25° 16′ W	—	— — —	—
49 C	$^{1}/_{6}$—$^{2}/_{6}$	29° 7′ N, 25° 32′ W	—	0, 25, 50, 100, 200, 300, 400, 500, 600, 800, 1000, 1200, 1600, 2000, 3950, 4950	St. w. 25, 500, 1000, 2000 C. m. 10, 50, 100, 200, 300, 500, 1000, 2000
50	$^{4}/_{6}$	30° 8′ N, 31° 19′ W	—	0, 25, 50, 100, 200, 300, 400, 500, 600, 800, 1000, 1200, 1600, 2000	St. w. 25, 100, 500, 1200, 2000,
51	$^{5}/_{6}$—$^{6}/_{6}$	31° 20′ N, 35° 7′ W	3886 y. m.	0, 25, 50, 110, 200, 310, 410, 515, 620, 825, 1000, 1600, 2000	St. w. 25, 110, 200, 500, 600, 1600, 2000. Ph. 500, 1000, 1700
52	$^{6}/_{6}$—$^{7}/_{6}$	31° 24′ N, 34° 47′ W	—	— — —	—
53	$^{8}/_{6}$—$^{9}/_{6}$	34° 59′ N, 33° 1′ W	2615—2865 y. hard clayish mud.	0, 25, 50, 100, 200, 300, 400, 500, 600, 800, 1000, 1200, 1600	St. w. 25, 50, 100, 200. Ph. 500
54	$^{10}/_{6}$	35° 37′ N, 30° 15′ W	3185 cl. m.	— — —	—
55	$^{10}/_{6}$	36° 24′ N, 29° 52′ W	3239 cl. m.	— — —	Ph. 500
56	$^{10}/_{6}$—$^{11}/_{6}$	36° 53′ N, 29° 47′ W	3239 cl. m.	— — —	—
57	$^{11}/_{6}$	37° 20′ N, 29° 33′ W	—	0, 50, 100, 200, 500, 800, 1000, 2000	—
		37° 11′ N, 29° 31′ W	1700 hard b.		
		37° 33′ N, 29° 29′ W	1510 hard cl.		
		37° 33′ N, 29° 20′ W	1735 hard cl.		
58	$^{11}/_{6}$—$^{13}/_{6}$	37° 37′ N, 29° 25′ W	1235 hard cl.	0, 50, 100, 200, 500, 800	Ph. 100. C. m. 10, 50, 100, 200, 300, 350, 500, 800
		37° 38′ N, 29° 20′ W	948 hard b.		
		37° 42′ N, 29° 18′ W	990 hard b.		

Phytoplancton		Zooplancton		Fishing Gear
Vertical Hauls F. T. Depths	Filtrated (F) or Centrifuged (C) Samples Depths	Vertical Hauls. Gear and Depths	Horizontal Hauls, Time, Gear and Lengths of wire out	
to Fajal, the Açores.				
— —	—	— —	10 min. 1 sn. 0	
100—0, 200—100	—	1 sn. 4000—0	10 min. 1 sn. 0	
— —	—	— —	During night. 1 sn. 100, 200, y. 300, 1/2 sn. 1000, y. 2000, 3 ln. 3000	
100—0, 200—100, 500—200	—	— —	1 sn. 0	
— —	—	— —	1 sn. 0, ca. 10 Hours 1/2 sn. 45, 6800	Trawl
— —	—	—	During the whole day 1 sn. 0, ca. 12 Hours 1/2 sn. 150, 7550	Trawl
200—0	—	— —	— — —	
— —	—	— —	ca. 8 Hours 1 sn. 0, 100, 270, y. 370, 1/2 sn. 750, 1000, y. 2000, 3 ln. 3000	
100—0, 200—0, 200—100, 500—200	F. 0, 50, 100	3 ln. 1000—0	— — —	Driftnets, Driftlong-lines. C.
100—0, 200—0, 200—100, 500—200	C. 25, 50 Later same day C. 50	1 sn. 200—0, 500—200, 1000—500	1 sn. 0	
100—0, 200—100 500—200	C. 100, 200	— —	During night 1 sn. 0, 100, 200, y. 300, 1/2 sn. 700, 1000, y. 2000, 3000, 3 ln. 4000	Sargasso. C.
— —	—	— —	2 1/2 Hours 1 sn. 0, 1/2 sn. 100, y. 600, 3 ln. 1200	
100—0, 200—100, 500—200	C. 0, 25, 50	— —	6 Hours 1 sn. 0, 1/2 sn. 60, 1 sn. 100, 1/2 sn. 120, 1 sn. 200, y. 300, 600, 1/2 sn. 1100, y. 1600, 1/2 sn. 2100, 3 ln. 2600	Sargasso. C.
200—0	F. 50, 75. C. 75, 100	— —	— — —	
— —		— —	— — —	
— —	—	— —	During night. 1 sn. 0, 100, 200, y. 300, 1/2 sn. 500, 750, y. 1000, 2000, 3 ln. 3000	
— —	F. 100. C. 200	— —	— — —	
200—0	F. 100	1 sn. 200—0, 500—200	During night. 1 sn. 0, 100, 200, y. 300, 3 ln. 600	
— —	—	— —	— — —	

Number of Station	Date	Locality	Sounding (Depth, Deposits)	Material for Physical Research	
				Serial Temperatures and Watersamples Depths in meters	Other Material or Observations Depths
				E. From the Açores to	
59	17/6	38° 30′ N, 28° 37′ W	225	0, 25, 50, 100, 150, 200, 220	—
60	20/6	37° 9′ N, 38° 5′ W	—	0, 25, 50, 75, 100, 200, 300, 400, 500, 600, 800, 1000, 1200, 1700, 2000	St. w. 0, 100, 300, 1200, 2000 Ph. 500
61	20/6	37° 7′ N, 38° 34′ W	—	— — —	—
62	20/6—21/6	36° 52′ N, 39° 55′ W	—	— — —	—
63	22/6	36° 5′ N, 43° 58′ W	5035 y. m.	0, 10, 25, 50, 75, 100, 200, 300, 400, 500, 600, 700, 800, 1000, 1200, 1600, 2000, 3000, 4000, 4850	—
64	24/6	34° 44′ N, 47° 52′ W	—	0, 25, 50, 100, 200, 400, 500, 600, 700, 800, 1200, 2100	Ph. 500
65	25/6	37° 12′ N, 48° 30′ W	—	0, 25, 50, 100, 200, 400, 600, 800, 1000, 1200, 1600, 2000	—
66	26/6	39° 30′ N, 49° 42′ W	—	0, 25, 50, 100, 200, 350, 500, 600, 800, 1000, 1200, 1600, 2000	St. w 25, 200, 500, 800, 1200, 1600, 2000
67	27/6	40° 17′ N, 50° 39′ W	—	0, 100, 500, 1100	—
68	28/6	39° 20′ N, 50° 50′ W	—	0, 50, 100, 300, 500, 600, 800, 1000, 1200, 1600	—
69	29/6	41° 39′ N, 51° 4′ W	—	0, 25, 50, 100, 200, 300, 400, 500, 600, 800, 1000, 1200, 2000	St. w. 25, 100, 500, 800, 1200, 2000
70	30/6	42° 59′ N, 51° 15′ W	1100	0, 10, 20, 30, 40, 50, 60, 75, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000	—
70 A	30/6	— —	—	0, 10, 20, 30, 40, 50, 60, 75, 100, 200	—
71	30/6	43° 18′ N, 51° 17′ W	147—138	0, 20, 30, 40, 50, 75, 100, 147	—
72	1/7	44° 35′ N, 51° 15′ W	75	0, 10, 20, 30, 35, 40, 50, 60, 71	—
73	1/7	45° 58′ N, 51° 25′ W	70	0, 10, 20, 30, 35, 40, 50, 70	St. w. 20, 30, 40, 70
74	2/7	47° 25′ N, 52° 20′ W	156	0, 30, 40, 50, 100, 160	—
				F. From St. John's, New-	
75	9/7	47° 22′ N, 49° 16′ W	120	0, 20, 30, 40, 50, 60, 70, 80, 100, 120	—
76	9/7	47° 11′ N, 47° 6′ W	380	0, 20, 40, 50, 60, 70, 100, 150, 200, 300, 400	St. w. 60, 100

Phytoplancton		Zooplancton		Fishing Gear
Vertical Hauls F. T. Depths	Filtrated (F) or Centrifuged (C) Samples Depths	Vertical Hauls, Gear and Depths	Horizontal Hauls, Time, Gear and Lengths of wire out	
St. John's, New-Foundland.				
50—0, 200—0	—	1 sn. 230—0	15 min. 1 sn. 0	
100—0, 200—100, 500—200	C. 100, 300	1 sn. 200—0, 500—200	10 min. 1 sn. 0	
— —	—	— —	— — —	C. Surface animals
— —	C. 10, 50	— —	During night. 1 sn. 0, 100, 200, y. 300, 3/4 sn. 600, y. 1000, 2000, 3/4 sn. 2500, 3 ln. 3000	
100—0, 200—100, 500—200	F. 25, 50, 75, 100. C. 100	3 sn. 200—0, 1350—450, 4500—1500 1 sn. 200—0, 500—200, 1000—900	— — —	
100—0, 200—0, 200—100	F. 20, 50, 75, 100, C. 20, 50, 75, 100, 500	— —	During whole day. 1 sn. 0, 100, 200, y. 300, 3/4 sn. 600, y. 1000, 2000, 3/4 sn. 2500, 3 ln. 3000	C. Sargasso
200—0	C. 50	— —	— — —	
100—0, 200—100, 500—200	C. 50, 100	— —	2 Hours 1 sn. 0, 3/4 sn. 200, 500, 1000, y. 1500	
— —	—	— —	2 Hours 1 sn. 0, 50, y. 200, 3/4 sn. 600, 800, y. 1200, 3/4 sn. 1700, 3 ln. 2200	C. Sargasso
200—0	—	— —	— — —	
200—0, 500—200	F. 20, 50, 75, 100 C. 20, 50, 100	1 sn. 200—0, 500—300	2 Hours 1 sn. 0, 100, 200, y. 300	C. Sargasso
20—0, 100—0, 350—150	C. 50	— —	5 Hours 1 sn. 0, 3/4 sn. 100, 1 sn. 200, y. 300, 3/4 sn. 700, 1200, y. 1700	
— —	—	— —	— — —	
— —	—	— —	2 Hours 1 sn. 0, 100, 200, y. 300	
— —	C. 10, 50	1 sn. 100—0, 70—40, 30—0	— — —	
— —	—	1 sn. 60—0, 60—40, 30—0	15 min. 1 sn. 0	
— —	—	1 sn. 40—0, 150—50	— — —	
Foundland to Glasgow.				
— —	—	1 sn. 50—0, 120—55	15 min. 1 sn. 0	
100—0	C. 20, 50	1 sn. 50—0, 125—50, 350—125, 300—0	— — —	

Number of Station	Date	Locality	Sounding, (Depth, Deposits)	Material for Physical Research	
				Serial Temperatures and Watersamples Depths in meters	Other Material or Observations Depths
77	10/7	47° 18′ N, 44° 54′ W	171 st.	0, 10, 20, 40, 50, 60, 80, 100, 125, 150, 166	St. w. 10, 60, 180
78	10/7	47° 17′ N, 44° 32′ W	202	— — —	—
79	10/7	47° 16′ N, 44° 17′ W	271 sd., st.	0, 10, 30, 40, 60, 80, 100, 150, 200, 266	—
80	11/7	47° 34′ N, 43° 11′ W	2000	0, 25, 50, 100, 150, 200, 300, 400, 500, 600, 800, 1000, 1200	—
81	12/7	48° 2′ N, 39° 55′ W	—	0, 50, 100, 200, 300, 500, 600, 700, 800, 1000	—
81 A	12/7	— —	—	0, 50, 200, 500, 1000, 1200, 1860	—
82	13/7	48° 24′ N, 36° 53′ W	—	0, 50, 100, 150, 200, 400, 600, 800, 1000, 1300	—
83	14/7	48° 30′ N, 33° 35′ W	—	0, 25, 50, 75, 100, 200, 300, 400, 500, 600, 800, 1000, 1200, 1850	—
84	15/7	48° 4′ N, 32° 25′ W	—	— — —	—
85	15/7—16/7	47° 58′ N, 31° 41′ W	—	0, 20, 50, 75, 100, 200, 300, 400, 500, 600, 800, 1000, 1500, 1850	—
86	16/7	47° 29′ N, 30° 20′ W	—	0, 50, 100, 200, 300, 400, 500, 600, 800, 1000	—
87	17/7	46° 48′ N, 27° 46′ W	2157 sd., y. m.	0, 25, 50, 100, 200, 300, 600, 800, 1000, 1600	—
88	18/7	45° 26′ N, 25° 45′ W	3120 sd., y. m	0, 100, 400	—
88 A	18/7	— —	—	0, 50, 100, 200, 300, 500, 600, 800, 1000, 1600	—
88 B	19/7	— —	—	0, 500, 1000, 1200, 1600	—
89	20/7	45° 55′ N, 22° 24′ W	—	0, 50, 100, 200, 400, 600, 800, 900, 1000, 1100	—
90	21/7	46° 58′ N, 19° 6′ W	—	0, 25, 50, 100, 200, 400, 600, 800, 1000, 1200, 1600	—
91	22/7	47° 32′ N, 16° 38′ W	4922 y. m.	0, 25, 40, 50, 100, 600, 800, 1000, 1200, 1600, 2000, 3500, 4000, 4750	—
92	23/7—24/7	48° 29′ N, 13° 55′ W	—	0, 25, 40, 50, 100, 200, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1660	—
93	25/7	50° 13′ N, 11° 23′ W	1257 y. m.	0, 25, 40, 50, 75, 100, 200, 400, 500, 600, 800, 1000, 1100, 1200	St. w. 5, 50
94	26/7	50° 13′ N, 11° 23′ W	1565	— — —	—
95	26/7—27/7	50° 22′ N, 11° 44′ W	1797	— — —	—
96	27/7	50° 57′ N, 10° 46′ W	184	0, 5, 10, 25, 50, 100, 150, 184	—

Phytoplancton		Zooplancton		Fishing Gear
Vertical Hauls F. T. Depths	Filtrated (F) or Centrifuged (C) Samples Depths	Vertical Hauls, Gear and Depths	Horizontal Hauls, Time, Gear and Lengths of wire out	
50—0, 150—50	C. 20, 50	1 sn. 20—0, 50—0, 175—20	— — —	
— —	—	— —	15 min. 1 sn. 0	
— —	—	1 sn. 50—0, 100—55, 275—100	— — —	
50—0, 200—50	C. 50	1 sn. 235—0, 500—200, 1000—500	ca. 6 Hours 1 sn. 0, 3/4 sn. 600, y. 1000, 3/4 sn. 1500, y. 2000, 3/4 sn. 2500, 3 ln. 3000	
50—0, 100—0, 200—100	C. 75 C. 50	— —	3 Hours 1 sn. 0, 100, 200, y. 300, 3/4 sn. 600, y. 1000, 3/4 sn.	
— —	—	— —	1500, v 2000, 3/4 sn. 2500, 3 ln. 3000	
— —	C. 50	— —	ca. 3 1/2 Hours 1 sn. 0, 100, 200, y. 300, 3/4 sn. 600, y. 1000, 3/4 sn. 1500, y. 2000, 3/4 sn. 2500, 3 ln. 3000	
100—0	C. 50	— —	35 min. cn. 100, 1 Hour cn. 1000	
— —	—	— —	4 Hours 1 sn. 0, 100, 200, y. 300, 3/4 sn. 600, y. 1000, 3/4 sn. 1500, y. 2000, 3/4 sn. 2500, y. 3000	
100—0, 200—100	C. 20, 50	1/2 sn. 130—0, 500—150, 1000—500, 2000—1100	— — —	
— —	C. 50	— —	1/2 Hour cn. 10, 100, 300, 600, 1 Hour cn. 1000 (bis) 2000	
100—0, 200—100	C. 50, 100	1/2 sn. 1900—0	3 Hours 1 sn. 0, 100, 200, 1/2 sn. 300, y. 300, 3/4 sn. 600, y. 1000, 3/4 sn. 1500, y. 2000, 3/4 sn. 2500, y. 3000	
100—0, 200—100	C. 5, 50, 75	1/2 sn. 1000—0	6 1/2 Hours 1 sn. 0, 100, 200, 1/2 sn. 300, y. 300, 3/4 sn. 600,	Trawl
— —	—	— —	y. 1000, 3/4 sn. 1500, y. 2000	
— —	—	— —	— — —	
— —	—	— —	— — —	
100—0, 200—100	C. 50, 75	1900—0	3 Hours 1 sn. 0, 100, 200, 1/2 sn. 300, y. 300, 3/4 sn. 600, y. 1000, 3/4 sn. 1500, y. 2000	
— —	—	— —	— — —	
50—0, 200—50	C. 5, 50	200—0, 500—200, 1000—500	4 Hours 1 sn. 0, 100, 200, y. 300, 3/4 sn. 600, y. 1000, sn 1500, y. 2000, ln. 3000	
— —	C. 40, 50	— —	— — —	
— —	—	— —	3 Hours 1 sn. 0, 100, 200, 1/2 sn. 250, y. 300, 3/4 sn. 600, y. 1000, 3/4 sn. 1500, ln. 2000	
— —	—	—	— — —	Trawl
— —	—	— —	1 Hour 3/4 sn. 100, y. 300	

Number of Station	Date	Locality	Sounding, (Depth, Deposits)	Material for Physical Research	
				Serial Temperatures and Watersamples Depths in meters	Other Material or Observations Depths
				G. From Glasgow	
97	4/8	56° 15′ N, 8° 28′ W	139	0, 10, 25, 50, 75, 100	—
98	5/8	56° 33′ N, 9° 30′ W	1000—1360	0, 25, 50, 100, 200, 400, 500, 600, 800, 1000	—
99	6/8	57° 45′ N, 13° 40′ W	149	0, 25, 50, 75, 100, 130	—
100	6/8	57° 48′ N, 12° 43′ W	1530 grey sd. with clay	0, 25, 50, 100, 200, 400, 600, 800, 1000, 1200, 1400	—
101	6/8—7/8	57° 41′ N, 11° 48′ W	1853 hard cl.	0, 50, 100, 200, 400, 600, 1000, 1400, 1750	—
102	9/8—10/8	60° 57′ N, 4° 38′ W	1098 dark sd., clay	— — —	—
103	10/8	60° 26′ N, 2° 34′ W	159	0, 10, 25, 50, 75, 100, 150	—
104	10/8	60° 35′ N, 3° 20′ W	234	0, 25, 35, 50, 75, 100, 150, 200	—
105	10/8	60° 45′ N, 3° 50′ W	670 clay	0, 25, 50, 75, 100, 200, 300, 400, 500, 600, 650	—
106	10/8—11/8	60° 54′ N, 4° 28′ W	1140	0, 25, 50, 75, 100, 200, 300, 400, 500, 600, 700, 800, 1000, 1100	—
107	11/8	61° 4′ N, 5° 5′ W	730	0, 25, 50, 75, 100, 200, 300, 400, 500, 600, 700	—
108	11/8	61° 13′ N, 5° 47′ W	249	0, 25, 50, 75, 100, 150, 200, 245	—
109	11/8	61° 22′ N, 6° 24′ W	228	0, 25, 50, 75, 100, 150, 200	—
110	11/8—12/8	61° 39′ N, 5° 57′ W	170	0, 25, 50, 85, 100, 150	—
111	12/8	61° 32′ N, 5° 15′ W	300	0, 10, 25, 50, 75, 100, 150, 200, 275	—
112	12/8	61° 24′ N, 4° 34′ W	560	0, 25, 50, 75, 100, 150, 200, 300, 400, 450, 500	—
113	12/8	61° 16′ N, 3° 50′ W	1080	0, 25, 50, 75, 100, 200, 300, 400, 500, 600, 800	—
114	12/8—13/8	61° 8′ N, 3° 16′ W	1047	0, 25, 50, 100, 200, 300, 350, 400, 450, 500, 800, 1000	—
115	13/8—14/8	61° 0′ N, 2° 40′ W	580	0, 25, 50, 100, 200, 250, 300, 350, 400, 500, 550	—
116	14/8	60° 52′ N, 2° 1′ W	125	0, 25, 35, 50, 75, 100	—

Phytoplancton		Zooplancton		Fishing Gear
Vertical Hauls F. T. Depths	Filtrated (F) or Centrifuged (C) Samples Depths	Vertical Hauls, Gear and Depths	Horizontal Hauls, Time, Gear and Lengths of wire out	
to Bergen.				
50—0	—	1 sn. 50—0, 100—50	3/4 Hour 1 sn. 0, y. 50	
100—0, 200—100	C. 5, 50	1 sn. 1000—550	4 Hours 1 sn. 0, 100, 200, y. 300, 3/4 sn. 600, y. 1000, 3/4 sn. 1450, ln. 1500	
50—0, 130—50	C. 5, 50	1 sn. 100—0	20' 1 sn. 0, 1/2 Hour, y. 75	
— —	—	1 sn. 100—0, 400—100, 1000—490	— — —	
— —	—	— —	3 Hours 1 sn. 0, 100, 200, y. 300, 3/4 sn. 600, y. 1000, 3/4 sn. 1500, y. 2000, ln. 2500	Trawl
— —	—	— —	3 Hours 1 sn. 0, 100, 200, y. 300, 3/4 sn. 400, y. 600, 1000, 3/4 sn. 1400, ln. 1500	Trawl
0, 150—50	C. 10	— —	— — —	
— —	—	— —	— — —	
— —	—	1/2 sn. 100—0, 500—105, 1100—640	— — —	
— —	—	— —	— — —	
— —	—	— —	— — —	
— —	—	— —	— — —	
— —	—	— —	— — —	
— —	—	— —	— — —	
— —	—	— —	— — —	
— —	—	1 sn. 100—0, 300—100, 500—300, 1000 - 500	— — —	
— —	—	— —	— — —	
— —	—	— —	— — —	
— —	—	— —	— — —	

Summary.

Material for physical research.

1625 readings of surface temperature.
937 readings of temperature below the surface. (730 of them by two thermometers simultaneously).
About 2400 watersamples; about 100 of them are sterilized.
258 current measurements.
7 photometric measurements.

Phytoplancton.

140 vertical hauls with nets of about 60 meshes pr. square millimeter
35 filtrated watersamples.
58 centrifuged watersamples.

Zooplancton.

95 vertical hauls. Nets with meshes of $^1/_4$ square millimeter.
193 horizontal hauls with silk nets.
80 horizontal hauls with pelagic young fish trawls.
18 horizontal hauls with a large shrimpnet.

Trawlings.

24 hauls with a 50 feet otter-trawl.