

ZOOLOGICAL STATIONS OF THE NORWEGIAN NORTH-ATLANTIC EXPEDITIONS, 1876-1878.

These expeditions were made by the steamer *Vöringen* and the zoological and physical researches were under the charge of Dr. Danielssen, Profs. Mohn and G. O. Sars, Herr Friele, etc. The first expedition, in 1876, extended along the western coast of Norway to the Färöe Islands and Iceland; the second, in 1877, from Bergen to outside the Loffoden Islands, and from Tromsøe to Jan Mayen; the third, in 1878, to Vardö, thence westward to Beeren Island, and afterwards to Spitzbergen in 80° N. latitude. All the dredging stations are given in this list.

Dredgings of Norwegian North-Atlantic expeditions, 1876-1878.

Serial number.	Date.	Latitude.	Longitude.		Depth.	Nature of bottom.	Bottom temperatures.		Apparatus used.
			North.	East.			Fahr.	Cent.	
	1876.								
1	June 3	61 13	6 36	650	Sandy clay	43.9	6.6	D.	
2	June 3	61 10	6 32	672	do	44.1	6.7	T.	
4	June 8	61 05	5 14	566	Sandy clay, pebbles	43.9	6.6	T.	
8	June 9	61 00	4 49	200	Clay, sand, stones	43.0	6.6	D.	
9	June 20	61 30	3 37	206	Clay	42.6	5.9	T.	
10	June 21	61 41	3 19	220	Ooze, clay	42.8	6.0	T.	
18	June 21	62 44	1 48	412	Clay	30.2	-1.0	D., T.	
23	June 23	62 52	5 50					T.	
25	June 28	63 10	5 25	98	Sandy clay	44.4	6.9	D., T.	
26	June 28	63 10	5 16	237	do	44.8	7.1	D.	
31	June 29	63 10	5 00	417	do	30.2	-1.0	D., T.	
33	June 30	63 05	3 00	525	Clay	30.0	-1.1	D., T.	
34	July 1	63 05	0 53	587	do	30.2	-1.0	T.	
			West.						
35	July 5	63 17	1 27	1,081	Biloculina clay	30.2	-1.0	D.	
40	July 18	63 22	5 20	1,215	do	20.8	-1.2	D., T.	
48	Aug. 6	64 36	10 22	299	Dark gray clay	31.5	-0.3	Tau.	
51	Aug. 7	65 53	7 18	1,163	Biloculina clay	30.0	-1.1	D.	
52	Aug. 8	65 47	3 07	1,861	do	29.8	-1.2	T.	
			East.						
53	Aug. 10	65 13	0 33	1,539	do	29.7	-1.3	D., T.	
54	Aug. 12	64 47	4 24	691	do	29.8	-1.2	D., T.	
79	Aug. 21	64 48	6 32	155	Sandy clay	44.4	6.9	D.	
87	Aug. 22	64 02	5 35	498	Clay	30.0	-1.1	D.	
92	Aug. 22	64 00	6 42	178	Sandy clay	45.0	7.2	T.	
93	Aug. 24	62 41	7 08	158	Soft clay	43.5	6.4	T.	
	1877.								
96	June 16	(Romsdalfjord.)	3 00	895	Biloculina clay	30.0	-1.1	D.	
101	June 17		8 32	223	Sandy clay	42.8	6.0	D.	
124	June 19		6 59	350	Coarse clay	30.4	-0.9	D., T.	
137	June 21		8 58	452	Clay	30.2	-1.0	D., T.	
147	June 22		12 08	142	Gray clay	43.2	6.2	D.	
149	June 23		13 58	135	Clay	40.8	4.9	D., T.	
			(Vestfjord.)						
164	June 29	68 21	10 40	457	Sandy clay	30.7	-0.7	D., T.	
173b	July 3	69 18	14 32	300	Clay, stones	40.3	4.6	D.	
175	July 2	69 17	14 35	415	Clay, pebbles	37.4	3.0	D.	
177	July 3	69 25	13 49	1,443	Biloculina clay	29.8	-1.2	D., T.	
183	July 5	69 59	6 15	1,710	do	29.7	-1.3	D., T.	
190	July 7	69 41	15 51	870	Sandy clay	29.8	-1.2	T.	
192	July 7	69 46	16 15	649	do	30.7	-0.7	D.	
195	July 16	70 55	18 38	107	Stones, clay	41.2	5.1	D.	
200	July 17	71 25	15 41	620	Clay	30.2	-1.0	D., T.	
205	July 18	70 51	13 03	1,287	Biloculina clay	29.8	-1.2	D.	
213	July 26	70 23	2 30	1,760	do	29.8	-1.2	D.	
			West.						
223	Aug. 1	70 54	8 24	70	Dark gray, sandy clay	30.9	-0.6	D.	
		(Jan Mayen I'd.)							
224	Aug. 1	70 51	8 20	95	do	30.9	-0.6	D.	
225	Aug. 2	70 58	8 04	195	do	30.9	-0.6	D.	
237	Aug. 3	70 41	10 10	263	Brown clay, stones	31.5	-0.3	D.	
240	Aug. 4	69 02	11 26	1,004	Biloculina clay	30.0	-1.1	D.	

Dredgings of Norwegian North-Atlantic expeditions, 1876-1878—Continued.

Serial number.	Date.	Latitude.	Longitude.	Depth.	Nature of bottom.	Bottom temperatures.		Apparatus used.
						Fahr.	Cent.	
	1877.	<i>North.</i>	<i>East.</i>	<i>Faths.</i>		°	°	
248	Aug. 8	67 56	4 11	778	Biloculina clay	29.5	-1.4	D.
251	Aug. 9	68 00	9 44	634	Clay	29.7	-1.3	D.
252	Aug. 11	(Vestfjord.)			do			D.
253	Aug. 15	(Skjerstadfjord.)		263	do	37.8	3.2	D.
2530	Aug. 17	(Saltstrommen.)		90	Stones			D.
	1878.							
255	June 19	68 12	15 40	341	Clay	43.7	6.5	D.
		(Vestfjord.)						
257	June 21	70 04	23 02	160	do	39.0	3.9	D.
		(Altenfjord.)						
258	June 21	70 13	23 03	230	do	39.2	4.0	T.
		(Altenfjord.)						
260	June 24	70 55	20 11	127	do	38.3	3.5	D., T.
		(Porsangerfjord.)						
261	June 25	70 47	28 30	127	do	37.0	2.8	D., T.
		(Tanafjord.)						
262	June 27	70 36	32 35	148	do	35.4	1.9	D., T.
267	June 27	71 42	37 01	148	Clay, stones	29.5	-1.4	D.
270	June 27	72 27	35 01	136	Clay	32.0	0.0	D.
273	July 1	73 25	31 30	197	do	36.0	2.2	D.
275	July 2	74 08	31 12	147	do	31.3	-0.4	T.
280	July 4	74 10	18 51	35	Stones	34.0	1.1	D.
		(Boeren Island.)						
283	July 5	73 47	14 21	767	Clay	29.5	-1.4	D.
286	July 6	72 57	14 32	447	do	30.6	-0.8	T.
290	July 7	72 27	20 51	191	Sandy clay	38.3	3.5	T.
295	July 14	71 59	11 40	1,110	Biloculina clay	29.7	-1.3	T.
297	July 16	72 36	5 12	1,280	do	29.5	-1.4	T.
303	July 19	75 12	3 02	1,200	do	29.1	-1.6	T.
312	July 22	74 54	14 53	658	Clay	29.8	-1.2	T.
315	July 22	74 53	15 55	180	Clay, sand	36.5	2.5	T.
322	July 23	74 57	19 52	21	Hard	32.4	0.2	D.
323	July 30	72 53	21 51	223	Clay	34.7	1.5	T.
326	Aug. 3	75 31	17 50	123	do	34.9	1.6	T.
333	Aug. 4	76 06	13 10	748	Biloculina clay	29.7	-1.3	T.
336	Aug. 5	76 19	15 42	70	Clay, hard bottom	32.7	0.4	D.
338	Aug. 6	76 19	18 01	146	Hard	30.0	-1.1	D.
343	Aug. 7	76 34	12 51	743	Clay	29.8	-1.2	T.
		<i>West.</i>						
350	Aug. 8	76 26	0 29	1,686	Biloculina clay	20.3	-1.5	T.
		<i>East.</i>						
353	Aug. 10	77 58	5 10	1,333	do	29.5	-1.4	T.
357	Aug. 12	78 03	11 18	125	Clay	35.4	1.9	D.
359	Aug. 12	78 02	9 25	416	do	33.4	0.8	D.
362	Aug. 14	79 50	5 40	459	do	30.2	-1.0	T.
363	Aug. 14	80 03	8 28	260	do	34.0	1.1	T.
366	Aug. 17	79 35	11 17	61	do	28.2	-2.1	T.
368	Aug. 17	Magdalena Bay.		37	do	31.6	0.2	T.
370	Aug. 18	78 48	8 37	109	do	34.0	1.1	T.
372	Aug. 19	78 09	14 07	129	do	34.2	1.2	T.
		(Isfjord.)						
374	Aug. 22	78 16	15 33	60	do	33.3	0.7	T.
		(Advent Bay)						

ZOOLOGICAL STATIONS OF THE SWEDISH ARCTIC EXPEDITIONS OF 1875, 1876, AND 1878-79.

The dredgings of 1875 were made by A. E. Nordenskiöld and Dr. Hjalmar Thée! in the sloop *Proeven*, those of 1876 by Nordenskiöld in the steamer *Ymer*, those of 1878-79 by Nordenskiöld in the *Vega*.

The numbers assigned to the stations are arranged geographically, instead of according to the dates at which they were made.

The numbers 98, 103, and 104 refer to collections not made by the *Vega* expedition but brought in by the Tschuktsches, who found them thrown on the shores in the spring and summer months of 1879.

Zoological stations of Swedish Arctic expeditions of 1875, 1876, and 1878-79.

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Serial number.	Date.	Latitude north.	Longitude, Greenwich, east.	Depth.	Kind of bottom.	Temperatures, Fabr.		Temperatures, Cent.		Apparatus used.
						Sur- face.	Bot- tom.	Sur- face.	Bot- tom.	
		o	o	Fath.		o	o	o	o	
1	Aug. 2, 1875	69 55	60 30	10	Sand and shells	42.3		5.7		D.
2	Aug. 3, 1875	70 00	60 35	120	Mud	39.0	28.6	3.9	-1.9	D.
3	Aug. 6-7, 1876	70 45	61 00	90	Brown soft mud	40.3		4.6		D. and Tan.
4	Aug. 8, 1878	70 14	61 21	116	Fine soft mud	39.9		4.4		D. and Tan.
5	do	70 23	61 42	100	Fine mud, poor in life	41.7		5.4		Tan.
6	Aug. 7, 1876	70 30	62 00	60	Mud	42.3		5.7		D. and Tan.
7	Aug. 8, 1876	70 25	62 30	55	do	35.2		1.8		D. and Tan.
8	do	70 20	62 40	50	Brown mud	35.6		2.0		D. and Tan.
9	Aug. 9, 1876	70 12	63 07	150	Mud	36.0		2.2		D. and Tan.
10	Aug. 4, 1875	71 05	63 20	90	do	39.6	28.9	4.2	-1.7	D.
11	do	71 00	63 25	70	do	39.2		4.0		D.
12	Aug. 2, 1878	71 03	63 46	70	Fine mud, poor in life	39.6	30.6	4.2	-0.8	D. and Tan.
13	Aug. 9, 1876	70 10	64 40	28	Mud	34.3		1.3		D. and Tan.
14	Aug. 2, 1873	71 21	64 53	60	Greenish-gray mud	38.5	28.4	3.6	-2.0	D. and Tan.
15	Aug. 10, 1876	70 10	65 30	7	Mud	33.8		1.0		D. and Tan.
16	Aug. 11, 1876	70 12	65 45	8	Slightly muddy sand	32.7		0.4		D.
17	Aug. 12, 1876	70 15	66 00	9	Very hard, muddy sand	32.2		0.1		D.
18	do	70 20	66 00	9	Hard sand	33.8		1.0		D.
19	Aug. 5, 1876	70 55	64 40	11	Sand	43.2	30.9	6.2	-0.6	D.
20	Aug. 6, 1876	71 00	65 50	12	do	42.1		5.6		D.
21	do	71 10	65 30	10	do	43.3		6.3		D.
22	do	71 15	66 05	8	do	41.6		7.0		D.
23	Aug. 7, 1876	71 55	67 00	32	Dark-blue mud	43.0		6.1		D. and Tan.
24	Aug. 2, 1876	72 05	66 10	85	Fine, soft, grayish-brown mud	38.3	27.9	3.5	-2.3	D. and Tan.
25	Aug. 7, 1875	72 05	67 30	36	Mud	42.6		5.9		D. and Tan.
26	do	72 10	67 55	21	do	41.7		5.4		Tangles.
27	Aug. 3, 1878	72 42	68 02	15	Fine, gray, sandy mud	37.4	34.5	3.0	1.4	D. and Tan.
28	Aug. 9, 1875	72 37	68 30	3	Sand	40.6		4.8		D.
29	Aug. 3, 1878	73 00	68 15	8	Brown, muddy sand	36.5	28.4	2.5	-2.0	D. and Tan.
30	Aug. 9, 1875	73 15	69 10	9	Slightly muddy sand	46.0	30.2	7.8	-1.0	D.
31	Aug. 3, 1878	73 28	68 32	10	Grayish-brown muddy sand	33.8	28.8	1.0	-1.8	D. and Tan.
32	Aug. 10, 1875	73 45	69 10	10	Sand	46.0	30.2	7.8	-1.0	D.
33	Aug. 6, 1878	73 35	72 00	12	Gray sand					D.
34	Sept. 3, 1876	74 45	71 06	16	Dark-brown, somewhat muddy sand	37.6		3.1		Tangles.
35	do	74 30	73 25	17	Sandy mud	36.9		2.7		Tangles.
36	do	74 12	75 45	18	Muddy sand	37.0		2.8		Tangles.
37	Sept. 2, 1878	73 37	83 35	23	Mud	44.4		6.9		Tangles.
38	Aug. 11, 1875	75 00	75 20	22	Muddy sand	37.8	28.9	3.2	-1.7	D.
39	do	75 35	77 30	20	do	36.5		2.5		D.

LISTS OF DREDGING STATIONS.

Zoological stations of Swedish Arctic expeditions, etc.—Continued.

Serial number.	Date.	Latitude north.	Longitude, Greenwich, east.	Depth.	Kind of bottom.	Temperatures, Fahr.		Temperatures, Cent.		Apparatus used.
						Sur-face.	Bot-tom.	Sur-face.	Bot-tom.	
		° ' "	° ' "	Fath.		°	°	°	°	
40	Aug. 12, 1875	75 40	78 40	26	Muddy sand	32.9	28.9	0.5	-1.7	D. and Tan.
41	Aug. 14, 1875	74 30	80 30	20	Mud, with ferruginous concretions	34.5	.....	1.4	.....	D. and Tan.
42	Sept. 2, 1875	73 15	57 18	50	Mud	39.2	.....	4.0	.....	Tangles.
43	July 31, 1876	73 10	57 45	150	...do	34.5	.....	1.4	.....	D. and Tan.
44	Aug. 31, 1875	73 30	57 55	80	...do .....	.....	28.9	.....	-1.7	D. and Tan.
45	Aug. 20, 1875	Udde Bay on the east coast of Nova Zembla		5	Lithothamnion bottom	38.5	.....	3.6	.....	D.
46	Sept. 7, 1876	73 28	58 00	50-125	Stony and muddy	37.4	.....	3.0	.....	D. and Tan.
47	...do	73 30	58 20	80	Stones	36.0	.....	2.2	.....	Tangles.
48	Sept. 6, 1876	73 38	59 08	100	Sand	36.0	.....	2.2	.....	D. and Tan.
49	Sept. 5-6, '76	73 38	63 45	80	Sand and broken shells	34.5	.....	1.4	.....	D. and Tan.
50	Sept. 5, 1876	74 30	65 35	35	Unknown	32.4	.....	0.2	.....	Tangles.
51	Sept. 4, 1876	74 43	65 35	80	Mud	32.2	.....	0.1	.....	Tangles.
52	Aug. 24, 1875	75 30	64 10	60	Mud?	36.7	28.6	2.6	-1.8	D.
53	...do	75 43	65 20	40-50	...do	37.0	.....	2.3	.....	Tangles.
54	Sept. 4, 1876	75 15	66 50	130	...do	32.2	.....	0.1	.....	D. and Tan.
55	...do	75 12	67 20	125	Brownish, sandy mud	33.6	29.5	0.9	-1.4	D. and Tan.
56	Aug. 9, 1878	73 30	80 58	5	Fine, very soft, light-brown mud	48.7	46.2	9.3	9.0	D.
		Dickson's Harbor								
57	Aug. 10, 1878	73 52	82 12	20	Gray mud	47.7	.....	8.7	.....	D. and Tan.
58	...do	74 08	82 12	19	...do	46.4	30.2	8.0	-1.0	D. and Tan.
59	...do	74 18	83 08	24	Mud	46.4	29.5	8.0	-1.4	Tangles.
60	Aug. 11, 1878	74 52	85 08	6	Sand	46.8	33.8	8.2	1.0	D.
61	Aug. 12, 1878	76 08	90 25	15	Stones	34.2	30.0	1.2	-1.1	Tangles.
62	Aug. 13, 1878	76 18	92 20	40	Brown mud, with many large stones	33.3	29.5	0.7	-1.4	D. and Tan.
63	...do	76 18	94 03	3-10	Stones	35.6	.....	2.0	.....	D.
64	Aug. 14-16, '78	76 18	95 30	5-10	...do	33.6	29.5	0.9	-1.4	D.
		Aktinia Bay.								
65	Aug. 19-20, '78	77 36	103 25	5-10	Mud, with stones	31.8	.....	-0.1	.....	D.
		Off Cape Tecler-juskin.								
66	Aug. 20, 1878	77 40	105 10	70	Gray mud	32.0	29.8	0.0	-1.2	Tangles.
67	Aug. 21, 1878	77 28	108 28	50	...do	32.9	29.5	0.5	-1.4	Tangles.
68	...do	77 15	111 45	23	Gray mud	32.4	29.5	0.2	-1.4	Tangles.
69	Aug. 22, 1878	76 55	115 18	32	Mud	31.8	.....	-0.1	.....	Tangles.
70	...do	76 52	116 00	36	Fine, gray mud	30.9	29.5	-0.6	-1.4	Tr.
71	Aug. 23, 1878	76 40	115 30	35	Mud	30.9	34.9	-0.6	1.6	Tr.
72	Aug. 24, 1878	75 00	113 30	15	Mud, with stones	39.2	36.6	4.0	-0.8	Tr. and Tan.

73	do	74 45	113 10	5	Solid rock	40.1		4.5		D.
74	Aug. 25, 1878	73 41	114 58	6	Mud	41.0	36.7	5.0	2.6	Tr.
75	Aug. 26, 1878	73 45	119 00	8	Solid rock	36.7	30.2	2.6	-1.0	Tangles.
76	do	73 45	121 20	4	Hard sand	34.2		1.2		Tr.
77	Aug. 27, 1878	73 50	126 07	7-8	do	36.7		2.6		Tr.
78	Aug. 28, 1878	74 09	130 20	15	Mud	39.9	38.8	4.4	3.8	Tr.
79	do	73 53	134 25	9	Greasy, gray mud	34.5		1.4		Tr.
		74 04	135 38							
80	Aug. 29, 1878	Dne west of Stolboroi Island.		18	Brown mud	34.2	31.3	1.2	-0.4	Tangles.
		73 53	138 00							
81	do	Betw'n Stolboroi and Blischni Ids		12	Soft, gray mud	34.5	31.3	1.4	-0.4	Tr.
		73 40	140 16							
82	do	West of Blischni Island.		4	Fine, gray mud	36.7	36.7	2.6	2.6	D. and Tan
83	Aug. 31, 1878	73 02	142 26	9	do	33.4	32.0	0.8	0.0	Tr.
84	do	73 05	144 20	8	do	36.7	31.3	2.6	-0.4	D. and Tr.
85	Sept. 1, 1878	72 20	153 30	10	Gray mud, very tough and solid	33.1	30.9	0.6	-0.6	Tr.
86	Sept. 2, 1878	71 39	157 15	10	Brown mud	35.2	30.2	1.8	-1.0	Tangles.
87	Sept. 3, 1878	70 28	164 10	9	Sand	30.2	30.2	-1.0	-1.0	D. and Tan.
88	Sept. 5, 1878	70 14	170 17	12	Mud, with stones	30.4	29.7	-0.9	-1.3	Tr.
89	Sept. 6, 1878	69 56	174 26	16	Gray mud	29.7	30.4	-1.3	-0.9	Tr.
90	Sept. 8, 1878	69 27	177 14	4-5	Fine sand, with stones	30.2		-1.0		D.
91	Sept. 7, 1878	69 32	177 41	12	Sand and mud, with stones	30.2		-1.0		Tr. and Tan
92	Sept. 9, 1878	69 22	177 28	4	Muddy sand	29.5	29.8	-1.4	-1.2	D.
93	Sept. 10, 1878	69 26	178 00	10	Sand, with small stones	29.5	29.8	-1.4	-1.2	D.
		West.								
94	Sept. 12-18, 78	68 55	179 25	3-6	Stones	29.8	29.7	-1.2	-1.3	D.
95	Sept. 20, 1878	68 12	176 32	6	Hard sand	30.2	29.8	-1.0	-1.2	D.
96	Sept. 24, 1878	67 58	176 10	5	do	32.0		0.0		D.
97	Sept. 25, 1878	67 53	176 08	4-6	Hard, gray sand	30.6		-0.8		D.
98	3 pr. June, 79	Koljutschin Island								
99a	Oct. 3, 1878	67 07	173 24	4-5	Hard, brown sand	30.6	29.7	-0.8	-1.6	D.
99b	July 7, 1879	67 07	173 24	2-3	Sand, with stones					D.
99c	June, July, 79	67 07	173 24	9-15	Muddy sand, with stones	32.4		0.2		Tr. and Tan.
100	July 19, 1879	66 58	171 35	21	Slightly muddy sand	34.2		1.2		Tr. and Tan.
101	do	66 25	170 35	25	Hard sand	30.6		-0.8		Tr. and Tan.
102	July 20, 1879	66 10	169 45		Sand, with many dead shells					
		North coast of Tjanka Tschukt-scha peninsula.								
103	Apr. July, 79	Tjanka Tschukt-scha peninsula.								
104	May, 1879									