

Supplementary material for: Skreslet S., Espinasse M., Olsen K. & Espinasse B.D. 2020. Variable predator–prey relations in zooplankton overwintering in Subarctic fjords. *Polar Research* 39. Correspondence: Stig Skreslet, Faculty for Biosciences and Aquaculture, Nord University, P.O. Box 614, NO-8622 Mo i Rana, Norway. E-mail: stig.skreslet@nord.no.

Supplementary Table S1. Metadata for the replicate samples of zooplankton from one station in each of the two fjords in northern Norway visited by RV *Raud* between 1983 and 1993 and RV *Oscar Sund* between 1994 and 2005.

Year	Saltfjord		Mistfjord	
	Date	Replicates	Date	Replicates
1983	07 February	5	08 February	5 ^a
	04 November	5	28 October	5 ^a
1984	02 February	5	08 February	5 ^a
	09 October	5	12 October	5 ^a
1985	11 February	5	14 February	5 ^a
	October ^b	0	October ^b	0
1986	30 January	5	26 February	5 ^a
	20 October	5	22 October	5 ^a
1987	17 February	5	18 February	5 ^a
	20 October	5	26 October	5 ^a
1988	01 March	5	22 March	5 ^a
	31 October	4	03 November	5 ^a
1989	24 February	5	10 March	5 ^a
	19 October	5	30 October	5 ^a
1990	08 February	5	16 October	5 ^a
	29 October	5	October ^b	0
1991	26 February	5	04 March	5 ^a
	25 October	5	29 October	5 ^a
1992	02 March	5	February ^b	0
	02 November	5	October ^b	0
1993	25 February	5	February ^b	0
	02 November	5	29 October	5
1994	01 March	5	03 March	5
	31 October	5	04 October	5
1995	16 February	5	20 February	5

Year	Saltfjord		Mistfjord	
	Date	Replicates	Date	Replicates
	17 October	5	16 October	5
1996	05 February	5	07 February	5
	25 October	4	28 October	5
1997	13 February	5	10 February	5
	14 October	5	13 October	5
1998	16 February	5	20 February	5
	12 October	5	08 October	5
1999	18 February	5	19 February	5
	22 October	5	18 October	5
2000	01 February	5	02 February	5
	18 October	5	17 October	5
2001	26 February	5	27 February	5
	19 October	5	16 October	5
2002	25 February	5	26 February	5
	14 October	5	15 October	5
2003	11 February	5	12 February	5
	24 October	5	23 October	5
2004	16 February	5	13 February	5
	11 October	5	12 October	5
2005	21 February	5	22 February	5
	27 October	5	24 October	5

^a Only crustacean meso-zooplankton were counted. ^b Intended sampling was not carried out.

Supplementary Table S2. Average bathypelagic temperature, salinity and oxygen concentration at a depth range below sill depth at the sampling stations in Saltfjord and Mistfjord. Blank cells represent missing data.

	Saltfjord, Feb.			Saltfjord, Oct.			Mistfjord, Feb.			Mistfjord, Oct.		
	250–370 m			250–370 m			200–290 m			200–290 m		
	T (°C)	S (psu)	O ₂ (ml/l)	T (°C)	S (psu)	O ₂ (ml/l)	T (°C)	S (psu)	O ₂ (ml/l)	T (°C)	S (psu)	O ₂ (ml/l)
1983	6.83	34.87	5.52	6.88	34.92	5.74	3.98	33.88	4.00	4.39	33.80	4.56
1984	7.19	34.94	6.44	6.54	35.04	6.02	4.12	33.89	3.88	5.11	34.03	4.97
1985	6.80	34.98	5.90				5.07	34.01	4.62			
1986	7.08	35.05	6.54	6.20	34.92	6.57	3.80	33.82		3.60	33.91	6.28
1987	6.84	35.00	5.64	6.32	35.04	5.37	3.62	33.97	6.11	4.43	34.06	4.50
1988	6.96			6.88		6.02	4.43			4.43		5.16
1989	7.19	34.81	4.89	7.08	34.92	5.95	4.45	33.93	3.35	4.47	33.96	3.91
1990	7.47	34.77	5.11	7.28	34.92	5.67				4.84	33.92	3.72
1991	7.52	34.90	5.55	7.09	35.01	6.13	5.06	33.90	3.24	5.21	33.89	5.16
1992	7.48	34.91	5.59				5.21	33.89	3.22	5.54	33.92	4.30
1993										6.23		
1994				6.43	34.97	5.75	6.16	34.30		5.62	34.19	4.60
1995	6.75	34.85	5.72	6.78	34.95	5.97	5.52	34.17	4.39	5.40	34.11	4.15
1996	7.20	34.96	5.51	6.81	34.95	5.87	5.38	34.10	3.50	5.95	34.25	4.85
1997	7.23	34.91	5.85	6.67	34.90	6.08	5.94	34.25	4.62	5.85	34.22	
1998	7.06	35.00	5.88	7.09	34.97	5.86	5.81	34.27	3.33	5.76	34.16	3.26
1999	7.40	34.96	5.26	7.11	35.02	5.68	5.70	34.07	3.00	5.64	34.13	3.13
2000	7.50	34.92	6.04	6.87	34.99	6.01	5.62	34.09	2.53	5.28	34.03	5.00
2001	7.10	34.91	5.49	7.13	35.03	5.23	5.28	34.02	4.46	5.29	34.10	3.62
2002	7.41	35.05	5.31	7.19	35.08	5.26	5.33	34.10	3.21	5.32	34.02	3.04
2003	7.54	35.09	5.13	7.29	34.99	5.21	5.05	34.01	3.50	5.18	33.98	5.22
2004	7.65	34.97	4.66	6.91			5.19	33.97	4.55			
2005	7.66	35.00	3.91	7.38	34.82	5.04	5.33	33.95	3.65	5.19	34.41	4.04

Supplementary Table S3. Abundance per m² sea surface of zooplankton species sampled in Saltfjord and Mistfjord. Blank cells represent missing data.

Saltfjord									
February	<i>C. spp</i> ^a	<i>C. hyp</i> ^b	<i>P. nor</i> ^c	<i>T. aby</i> ^d	<i>T. hel</i> ^e	<i>P. ele</i> ^f	<i>E. ham</i> ^g	<i>D. arc</i> ^h	<i>A. dig</i> ⁱ
1983	16460	234	68	220	12	352	312	28	0
1984	31600	700	252	178	8	308	722	72	2
1985	8233	1633	87	113	3	103	1027	397	17
1986	11300	394	82	66	32	700	374	180	12
1987	22520	1594	170	146	12	464	966	120	72
1988	2300	252	18	2	164	276	2600	88	30
1989	9460	518	56	32	20	326	2866	62	6
1990	15600	996	54	94	2	134	634	46	2
1991	6360	492	52	12	18	430	3754	182	8
1992									
1993	7296	690	64	20	35	285	2503	118	10
1994	5856	1148	48	28	32	368	1708	74	12
1995	13456	514	60	116	14	180	470	1158	20
1996	7296	370	112	176	32	292	1074	508	44
1997	8200	672	32	28	24	426	972	306	30
1998	10416	1810	60	164	0	352	1134	54	62
1999	12544	1342	128	134	22	312	5688	210	20
2000	14672	660	90	84	14	312	3014	262	6
2001	7688	1480	78	158	24	110	1438	216	0
2002	3426	308	36	20	62	80	1242	54	10
2003	10464	2248	54	58	16	90	1042	26	2
2004	13296	176	66	44	20	208	1100	156	8
2005	4218	690	60	14	26	112	2918	154	12
October									
1983	44100	1194	282	70	8	94	818	108	6
1984	47925	1375	68	50	0	353	1185	160	8
1985									
1986	59060	822	28	32	26	292	556	28	6
1987	39260	1160	40	4	10	173	923	67	63
1988	57900	727.5	123	143	15	98	848	0	10
1989	85060	1940	204	184	20	525	925	80	13
1990	39700	1396	132	46	34	302	1588	132	16
1991	57780	568	152	94	18	422	682	182	12
1992	59616	1112	200	18	34	382	544	184	6
1993	21824	3166	96	32	54	304	378	196	24

1994	137792	1092	106	24	22	840	1150	2248	132
1995	22320	680	92	76	60	222	1418	1012	16
1996	20200	1052.5	65	58	50	415	430	505	63
1997	45104	806	30	108	20	526	374	288	34
1998	45264	2296	118	176	34	460	838	564	50
1999	41856	1528	160	88	44	260	844	466	18
2000	38272	4440	144	378	40	278	866	644	16
2001	22688	900	142	36	170	1262	868	336	74
2002	42576	2742	84	106	64	146	742	430	20
2003	48432	292	122	66	28	258	498	134	8
2004	19440	398	158	0	42	126	622	300	6
2005	27200	82	156	262	16	160	240	70	2

Mistfjord

February *C. spp* *C. hyp* *P. nor* *T. aby* *T. hel* *P. ele* *E. ham* *D. arc* *A. dig*

1983	25060	850	118	114					
1984	11080	1634	236	58					
1985	7640	1928	108	22					
1986	4498	540	38	18					
1987	46320	1516	122	78					
1988	1770	758	56	72					
1989	2170	322	54	74					
1990									
1991	12060	1052	110	28					
1992									
1993									
1994	7184	4988	114	2	2	212	138	0	0
1995	32256	1346	40	4	2	118	36	2	4
1996	8864	3856	144	6	0	232	28	0	22
1997	10392	1272	56	0	0	106	28	0	0
1998	15184	1432	82	4	0	52	14	0	2
1999	13936	2650	170	16	4	138	98	0	0
2000	29856	3840	104	6	4	112	54	0	0
2001	9752	1028	52	2	4	20	58	0	4
2002	8308	2792	162	4	0	28	60	0	0
2003	9472	4140	164	4	0	22	78	0	2
2004	27792	1806	68	20	2	96	10	0	0
2005	3164	1154	84	12	0	8	24	0	0

October

1983	18580	2404	260	168					
1984	23160	2418	102	40					
1985									

1986	79700	3420	60	80					
1987	7500	1080	24	86					
1988	8560	1042	24	160					
1989	15480	832	58	58					
1990	46060	1622	114	20					
1991	41900	2472	78	8					
1992									
1993	13376	8192	162	2	0	310	44	0	0
1994	90944	1738	34	2	4	272	32	0	0
1995	16920	3574	88	18	4	750	36	0	12
1996	11344	2030	90	6	0	130	44	0	4
1997	15168	2460	14	42	0	82	18	0	0
1998	62880	7112	90	4	0	134	104	0	18
1999	74656	5864	52	12	24	160	38	0	2
2000	29440	3088	46	10	6	134	18	0	2
2001	18976	4970	58	24	8	56	148	0	2
2002	35632	5854	60	28	8	190	106	72	20
2003	36336	3806	68	10	4	80	44	2	6
2004	10416	1724	34	28	0	54	30	0	0
2005	27136	3776	78	16	4	146	68	0	0

^a *Calanus* spp. complex. ^b *Calanus hyperboreus*. ^c *Paraeuchaeta norvegica*. ^d *Themisto abyssorum*. ^e *Tomopteris helgolandica*. ^f *Parsagitta elegans*. ^g *Eukrohnia hamata*. ^h *Dimophyes arctica*. ⁱ *Aglantha digitale*.