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MANUSCRIPT REPORTS OF THE BIOLOGICAL STATIONS

No.

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Title

Plankton Counts at Lakelse Lake

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Plankton counts at Lakelse Lake, B. C.

by

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The data used in the printed report "The abundance and distribution of entomostracan plankton at Lakelse Lake, B. C., 1949-1952" (J. Fish. Res. Bd. Canada, Vol. 11, No. 4, 1954) appear on the following pages in the form of original counts of individual samples.

In the case of Tables III, IV, V, VI and VII of the printed report the original counts were converted to numbers per cubic metre. The diameter of the upper rings of the plankton nets was 13.0 cm. and the volume of water strained when the nets were drawn through 5 metres was, therefore, found to equal approximately 0.0664 cubic metres. A conversion factor of 15.06 was thus used in this case to bring the count up to numbers per cubic metre. Conversion factors used for the other hauls were 7.53 for hauls of 10-metre length, 5.02 for hauls of 15-metre length and 2.51 for hauls of 30-metre length.

For Tables I and II of the printed report, which are concerned with vertical and horizontal distributions, respectively, a further conversion was made to percentage occurrence of numbers of forms per cubic metre. Using the July 5 sample as an example, counts of Cyclops were treated for vertical distribution, in the following manner:

	30-15 m.	15-10 m.	10-5 m.	5-0 m.
Counted numbers	530	45	72	106
Numbers per cu. m.	2661	678	1084	1596/
% occurrence per cu. m.	44.2	11.2	18.0	26.5

The tables following are given the same numbers as the corresponding tables of the printed report.

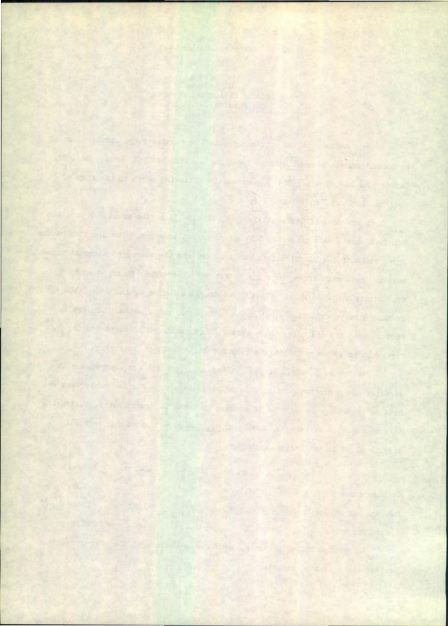


Table I. Vertical distribution of 5 genera of entomostracan plankters at Lakelse Lake for 4 months of 1949. Numbers represent actual counts for each of the stage-hauls.

Cyclops		Stage-hauls (m.)				Epischura		Stage-hauls (m.)			
Date	30-15	15-10	10-5	5-0	Date	30-15	15-10	10-5	5-0		
Jul. 5	530	45	72	106		20	17	56	40		
12	121	20	108	171		6	13	229	155		
19	694	43	88	48		3	5	129	174		
Aug. 2	402	124	262	271		18	82	262	311		
9	580	91	75	185		22	79	101	283		
16	883	37	113	256		110	14	101	541		
23	229	72	243	372		51	12	151	404		
30	37	103	78	282		1	14	10	536		
Sep. 6	42	89	260	557		10	11	11	637		
13	660	102	238	210		47	1	21	507		
27	164	33	16	774		15	3	3	218		
Nov. 7	67	67	51	108		-	8	5	1		

Bosmina

Date

Jul. 5	-	2	8	6
12	-	3	-	27
19	-	5	11	13
Aug. 2	13	37	42	63
9	1	33	20	44
16	5	8	50	87
23	7	24	127	133
30	12	3	27	111
Sep. 6	13	13	38	166
13	3	8	70	200
27	7	18	7	145
Nov. 7	21	31	23	4

Diaphanosoma

1	1	7	11
1	-	4	8
-	-	1	10
1	4	13	20
-	9	1	11
-	2	7	19
-	5	13	24
-	-	5	30
2	-	4	57
-	1	22	93
7	2	2	97
2	7	7	1

Holopedium

Date

Jul. 5	-	-	-	15
12	1	1	-	126
19	-	-	1	20
Aug. 2 to				
Nov. 7	-	-	-	-

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Table II. Horizontal distribution of 5 genera of entomostracan plankters at Lokelse Lake for 5 months of 1949. Numbers represent actual counts of organisms in the upper 5 metres at each of the 5 stations.

Cyclops	Stations					Epischura	Stations				
	1	2	3	5	6		1	2	3	5	6
Date											
May 31	80	510	235	283	3		11	82	47	10	2
Jun. 7	198	105	110	91	13		46	29	74	64	3
	14	93	165	194	198		3	42	87	22	7
	21	122	124	150	247		3	39	30	50	-
	28	11	319	325	127		142	13	39	36	35
Jul. 5	23	140	106	263	102		13	26	40	49	60
	12	104	90	171	83		41	103	155	156	106
	19	55	384	48	112		49	645	174	213	162
Aug. 9	309	112	185	148	10		282	210	283	423	19
	16	135	236	256	241		788	212	541	175	23
	23	41	165	372	648		279	219	404	752	8
Sep. 13	76	398	210	933	178		218	220	507	158	338
	27	362	637	774	1004		127	266	218	496	23

Bosmina

Date

May 31	1	4	-	1	-		2	2	-	-	-
Jun. 7	17	1	2	-	2		1	5	5	3	-
	14	3	5	5	1		-	1	6	1	1
	21	27	5	-	4		27	5	-	4	-
	28	2	6	5	20		-	39	34	5	1
Jul. 5	5	7	6	14	5		-	60	11	7	1
	12	25	30	27	7		4	14	8	3	2
	19	20	51	13	30		2	20	10	12	2
Aug. 9	81	62	44	37	5		7	2	11	2	-
	16	5	68	87	18		11	18	19	6	2
	23	85	54	133	11		5	12	24	5	-
Sep. 13	207	90	200	45	33		16	38	93	12	17
	27	49	179	145	137		26	88	97	51	9

Diaphanosoma

Holopedium

Date

May 31	-	-	-	-	-
Jun. 7	41	1	3	1	-
	14	9	17	6	-
	21	316	7	6	-
	28	-	27	58	15
Jul. 5	10	80	15	41	3
	12	-	238	126	7
	19	-	4	20	5
Aug. 9 to	-	-	-	-	-
Sep. 27	-	-	-	-	-

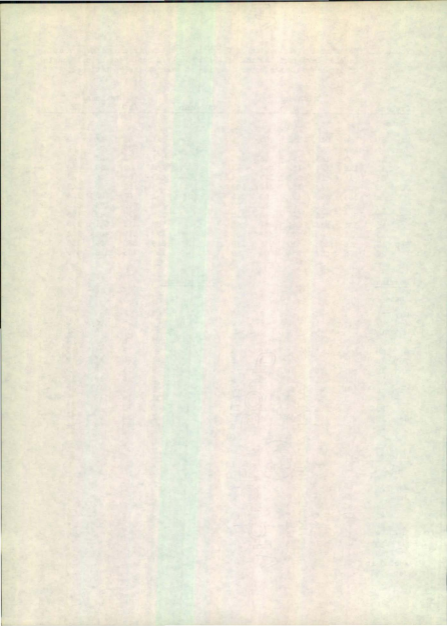
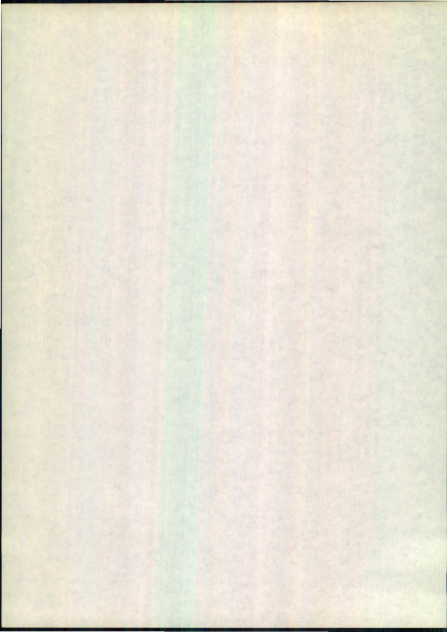


Table III. Actual counts of 4 genera of entomostreacan plankters at stations 1 and 6 for each sampling date of July and August of 1949 and the average southerly wind velocity at the time of sampling and of the evening and morning of the preceding day.

Date	Station 1				Station 6				Av. south- wind velocity
	Bomina	Diaphano- soma	Cyclops	Epischura	Bomina	Diaphano- soma	Cyclops	Epischura	
Jul. 5	5	0	23	16	5	1	102	60	0.3
12	25	4	104	41	4	2	63	106	0.3
19	20	2	55	49	5	2	27	162	0.0
26	85	14	364	403	2	0	63	51	2.0
Aug. 2	11	3	118	54	13	2	41	43	0.6
9	81	7	309	232	5	0	10	19	1.6
16	5	11	135	788	29	2	28	23	0.3
23	85	5	41	279	15	0	56	8	1.3



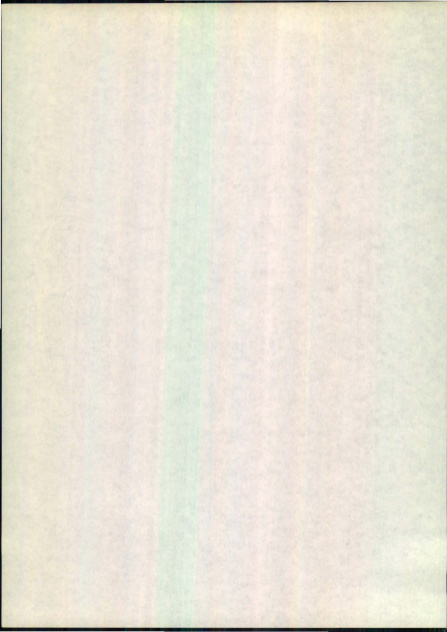
Tables IV, V, VI. Seasonal variation in abundance of 5 genera of limnetic rotomastriacans at Lakeside Lake for 6 months of 1949. Numbers represent actual counts for each of stations 1, 2, 3, 5 and 6. Total vertical hauls were used.

Date	Station 1					Station 2				
	Cyclops	Epischura	Diaphano- soma	Bosmina	Holopedium	Cyclops	Epischura	Diaphano- soma	Bosmina	Holopedium
May 31	80	11	2	1	1	740	80	1	2	-
Jun. 7	198	46	1	17	41	344	46	20	6	4
14	95	3	-	3	9	192	21	12	4	24
21	122	142	21	27	216	568	47	3	5	10
28	11	13	-	2	-	779	84	53	25	42
Jul. 5	25	16	-	5	10	250	129	40	23	75
12	104	41	4	25	-	290	311	11	49	189
19	55	49	2	20	-	520	902	22	72	-
26	344	403	14	80	-	210	553	52	25	2
Aug. 2	112	54	3	11	-	599	723	31	120	-
9	309	222	7	81	-	429	750	27	145	-
16	125	793	11	5	-	580	379	32	173	-
23	41	279	5	85	-	473	385	21	198	-
Sep. 6	242	112	11	74	-	624	445	25	177	-
13	75	212	16	85	-	321	231	52	103	-
27	322	127	26	49	-	422	126	22	122	-
Oct. 4	100	85	2	4	-	1023	26	11	123	-
12	36	22	1	12	-	622	74	12	69	-
Station 3										
Station 5										
May 31	212	20	-	5	-	212	10	-	1	-
Jun. 7	212	122	14	14	3	203	100	4	2	-
14	722	111	7	10	6	327	19	2	6	-
21	1242	120	19	20	14	341	66	9	8	-
28	1202	112	45	22	64	221	11	6	11	13
Jul. 5	222	112	12	17	21	227	70	5	14	45
12	222	207	12	27	71	142	157	7	6	27
19	1222	243	17	42	30	147	172	5	25	-
Jul. 26	222	262	22	21	1	221	212	22	27	-
Aug. 2	1211	222	22	140	-	224	222	12	22	-
9	1222	212	17	122	-	229	220	2	22	-
16	202	221	16	122	-	202	222	17	74	-
23	214	212	9	122	2	222	204	9	22	-
Sep. 6	222	210	22	227	-	220	222	22	222	-
13	1222	224	22	120	-	222	122	27	22	-
27	1122	122	22	127	-	1072	244	22	122	-
Oct. 4	2041	227	22	122	-	209	107	22	22	-
12	222	122	42	122	-	222	22	-	22	-
Station 6										
May 31	3	2	-	-	-	-	-	-	-	-
Jun. 7	13	3	-	2	-	-	-	-	-	-
14	21	7	1	-	-	-	-	-	-	-
21	3	-	-	-	-	-	-	-	-	-
28	4	-	1	2	-	-	-	-	-	-
Jul. 5	122	20	1	5	3	-	-	-	-	-
12	23	122	2	4	26	-	-	-	-	-
19	27	122	2	5	6	-	-	-	-	-
26	22	31	-	2	-	-	-	-	-	-
Aug. 2	41	42	2	13	-	-	-	-	-	-
9	10	19	-	5	-	-	-	-	-	-
16	22	22	2	29	-	-	-	-	-	-
23	26	8	-	15	-	-	-	-	-	-
Sep. 6	40	71	7	12	-	-	-	-	-	-
13	122	222	17	22	-	-	-	-	-	-
27	30	22	9	5	-	-	-	-	-	-
Oct. 4	40	12	17	45	-	-	-	-	-	-
12	261	22	9	22	-	-	-	-	-	-

Table IV - Average of stations 1, 2, 3, 5, and 6.

Table V - Counts at station 3 only.

Table VI - Average at stations 2, 3, and 5.



Tables IV, V, VI. Seasonal variation in abundance of 5 genera of limnetic entomostracans at Lakelse Lake for 6 months of 1949. Numbers represent actual counts for each of stations 1, 2, 3, 5 and 6. Total vertical hauls were used.

Date	Station 1					Station 2				
	Cyclops	Epishura	Diaphano- som	Dosinae	Holopedium	Cyclops	Epishura	Diaphano- som	Dosinae	Holopedium
May 31	80	11	2	1	1	760	80	1	2	-
Jun. 7	198	46	1	17	41	244	46	20	6	4
14	95	3	-	3	9	392	21	12	4	24
21	122	142	31	37	316	268	47	3	5	10
28	11	13	-	2	-	779	64	23	26	62
Jul. 5	23	16	-	5	10	250	129	40	23	76
12	104	41	4	25	-	290	211	11	49	187
19	95	49	2	20	-	520	928	22	72	-
26	364	403	14	80	-	210	233	26	60	2
Aug. 2	118	54	3	11	-	599	723	31	150	-
9	309	222	7	21	-	429	750	29	160	-
16	135	798	11	5	-	580	379	32	173	-
23	41	279	5	25	-	693	365	21	198	-
Sep. 6	242	112	11	74	-	694	442	25	177	-
13	76	212	16	25	-	281	221	28	103	-
27	362	127	26	49	-	402	136	22	133	-
Oct. 4	100	85	2	4	-	1033	95	11	133	-
12	36	22	1	12	-	632	74	12	69	-
	Station 3					Station 5				
May 31	212	65	-	5	-	512	10	-	1	-
Jun. 7	2122	126	14	14	3	202	190	4	2	-
14	792	111	7	10	6	327	19	2	6	-
21	1242	190	19	20	14	341	66	9	8	-
28	1901	112	42	22	64	221	11	6	11	13
Jul. 5	625	112	12	17	21	317	70	2	14	45
12	292	227	12	27	71	142	127	7	6	-
19	1092	243	17	42	30	147	178	5	25	9
Jul. 26	275	266	25	21	1	521	612	22	27	-
Aug. 2	1211	227	23	140	-	624	222	12	22	-
9	1222	212	17	122	-	229	330	2	62	-
16	222	421	16	122	-	322	332	17	74	-
23	211	212	9	122	-	222	222	9	22	-
Sep. 6	222	212	22	227	-	222	222	22	222	-
13	1222	324	22	170	-	222	122	27	22	-
27	1222	122	22	127	-	1272	244	22	122	-
Oct. 4	2241	227	122	122	-	222	127	22	42	-
12	222	122	42	122	-	222	22	-	22	-
	Station 6									
May 31	3	2	-	-	-					
Jun. 7	12	3	-	2	-					
14	61	7	1	-	-					
21	3	-	-	-	-					
28	4	-	1	2	-					
Jul. 5	122	20	1	2	3					
12	23	122	2	4	26					
19	27	122	2	5	6					
26	22	31	-	2	-					
Aug. 2	41	42	2	13	-					
9	10	19	-	5	-					
16	22	22	2	22	-					
23	22	2	-	12	-					
Sep. 6	40	71	7	12	-					
13	172	222	17	22	-					
27	20	22	9	5	-					
Oct. 4	20	12	17	42	-					
12	261	22	9	22	-					

Table IV - Average of stations 1, 2, 3, 5, and 6.

Table V - Counts at station 3 only.

Table VI - Average at stations 2, 3, and 5.

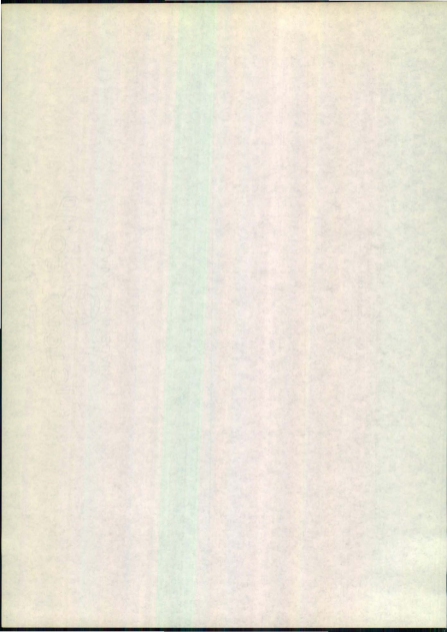


Table VII. Annual variation in abundance of 5 genera of limnetic entomostracans at Lakelse Lake from 1949 to 1952. Numbers represent actual counts of total vertical hauls at station 3.

Date	Cyclops	Epischura	Diaphanosoma	Bosmina	Holpedium
1949					
May 31	812	65	-	5	-
Jun. 7	2182	186	14	14	3
14	793	111	7	10	6
21	1548	150	19	20	14
28	1901	118	45	28	64
Jul. 5	685	112	12	17	21
12	895	357	12	27	71
19	1098	343	17	42	30
26	876	566	25	51	1
Aug. 2	1211	985	23	140	-
9	1223	518	17	126	-
16	505	421	16	138	-
23	814	512	9	196	-
Sep. 6	928	410	53	257	-
13	1585	334	35	170	-
27	1152	145	62	137	-
Oct. 4	2041	897	155	199	-
18	979	129	45	193	-
Nov. 7	356	11	13	61	-
1950					
Mar. 7	62	-	-	10	1
20	32	-	-	13	-
May 6	108	-	-	7	-
Jun. 12	59	13	-	3	-
26	147	63	-	15	27
Jul. 15	184	18	-	12	10
27	281	233	-	26	-
Aug. 8	887	292	1	102	-
30	679	350	26	118	-
Sep. 13	285	49	6	39	-
28	624	182	178	23	-
Oct. 18	458	118	101	12	-
1951					
May 17	83	5	-	-	5
Jul. 5	194	8	2	1	22
27	240	333	5	1	-
Aug. 24	307	111	53	74	-
Sep. 12	265	134	134	15	-
Oct. 22	314	29	5	-	-
Nov. 21	144	5	-	1	-
1952					
Jun. 24	430	28	54	12	-
Jul. 14	370	9	5	1	2
22	282	46	4	-	1
Aug. 29	197	89	3	1	-
Sep. 20	355	220	11	1	-
Oct. 4	294	23	8	4	-

