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Lake Variation and Climate Change Study: Crustacean Plankton of a Lake Size Series in the Red Lake District, Northwest Ontario, 1987 - 1989 and Lake Nipigon, 1989

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LAKE VARIATION AND CLIMATE CHANGE STUDY: CRUSTACEAN PLANKTON OF A LAKE SIZE SERIES IN THE RED LAKE DISTRICT, NORTHWEST ONTARIO, 1987-1989 AND LAKE NIPIGON, 1989

by

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Zooplankton species abundance, biomass, and total net plankton settled volumes measured during the open water seasons of 1987, 1988 and 1989 in a lake size series in Northwest Ontario, and Lake Nipigon are presented. Field and laboratory methods are given. Sampling sites on the seven lakes are included.

Key words: limnology; natural variability; climate; methodology; long-term monitoring; zooplankton abundance; biomass.

RÉSUMÉ

Salki, A.G. 1992. Lake variation and climate change study: crustacean plankton of a lake size series in the Red Lake District, Northwest Ontario, 1987-1989 and Lake Nipigon, 1989. Can. Data Rep. Fish. Aquat. Sci. 862: v + 30 p.

On présente des données sur les espèces de zooplancton (abondance, biomasse et volumes totaux de plancton tamisé déposé) obtenues au cours des saisons de 1987, 1988 et 1989 (en eau libre) dans une série de lacs de tailles diverses du nord-ouest de l'Ontario et dans le lac Nipigon. Les méthodes utilisées sur le terrain et dans le laboratoire sont décrites. Les sites d'échantillonnage sont indiqués pour les sept lacs.

Mots clés: limnologie; variabilité naturelle; climat; méthodologie; surveillance à long terme; zooplancton; abondance; biomasse.

INTRODUCTION

This report archives initial information on the species composition, abundance and biomass of the crustacean plankton communities found in six lakes (Green, Orange, Linge, Musclow, Sydney, Trout) in the Red Lake District of Northwest Ontario during the open water periods of 1987, 1988 and 1989 and for Lake Nipigon during July 1989. These zooplankton samples were collected within the Freshwater Institute's "Natural Variability and Climate Research" project to determine the functional relationship between lake size and limnological variability (Fee et al. 1989). Surface areas of the study lakes range between 89 and 34690 ha; Lake Nipigon has a water surface area of 484,000 ha (Fee et al. 1989).

A companion study in seven Experimental Lakes Area (ELA) lakes is examining the effect of water renewal time on limnological variability (in prep). The ELA lakes are of uniform size (15-25 ha) but have variable flushing rates (<0.1-15 yr). Together, these two studies, with a planned duration of 10 years, will provide a better understanding of the role that lake size and flushing time have on natural variability of unperturbed lakes. This information will serve as a basis for assessing the impact of a variety of environmental effects on aquatic ecosystems. Data on the species composition and abundance of zooplankton in the ELA study lakes during the open water periods from 1987 to 1990 are presented in Salki (1991).

METHODS

Zooplankton samples were collected with twin Wisconsin nets mesh size 72 μm, mouth opening total = 904 cm^2, length 1 m) attatched to a metal crossframe to ensure that the retrieval line did not disturb the water column passing through each net. Nets were towed vertically from 1 m above the bottom to the surface at a rate of 0.2 $m \cdot sec^{-1}$. Net contents were preserved in 5% formalin solution (see also Fee et al. 1989).

The zooplankton sampling sites are indicated in Figs. 1-6. In 1987, mid-lake stations in each lake were sampled on eight occasions between May 14 and October 13. Also, a network of 20 stations was sampled in Trout Lake on August 5, 1987 to examine the horizontal variance of zooplankton. In 1988, from 9 to 20 samples were collected in each lake during August to examine the spatial distributions of zooplankton. In 1989, each lake was sampled at a central buoy on six dates during the June 14 to September 12 period. Lake Nipigon was sampled at 21 stations from July 24-28, 1989 (Fig. 7). Each 1987 and 1989 zooplankton sample is assigned a Sample Number (equivalent to Station Number in Fee et al. 1989) for reference to other limnological measurements made at the same time and location. The 1989 Lake Nipigon station numbers in Tables 19 and 20 are equivalent to station numbers reported in Fee et al. (pers. comm.).

Preserved zooplankton samples were decanted and transferred to 45 mL glass vials once they had settled. The total net plankton volume of each sample was determined after 24-h settling in 8 x 600 mm glass tubes (Bajkov 1929). Microscopic analysis followed procedures outlined in Salki (1981). One mL subsamples were withdrawn from 40 mL samples using a calibrated 4 mm I.D. glass tube and placed in a 1 mL Sedwick-Rafter counting chamber. Zooplankton were identified with a 63x compound microscope and enumerated using a voice recognition system (Capel and Salki, pers. comm.). All specimens except cyclopoid and diaptomid nauplii were identified to species using keys of Yeatman (1959), Wilson (1959), and Brooks (1957). Abundances of the most common species were estimated from subsamples representing between 1.5 and 5.0% of each sample. Larger, less abundant animals (Leptodora, Senecella, Mysis, Gammarus) were enumerated in the whole or a large fraction (1/4-1/2) of the sample under a 12x dissecting microscope. Biomass was estimated using measured specimen lengths or data from Malley et al. (1989) and the formulae of Klekowski and Shushkina (1966) and Pechen (1965) as cited in Edmondson (1971).

DATA SUMMARY

The limnological characteristics of the six lakes in the Red Lake District and Lake Nipigon are given in Table 1.

The species composition, average abundance, and biomass of zooplankton found in each lake during 1988 and 1989 seasonal sampling is given in Tables 2 and 3.

Data indicating the horizontal variability of zooplankton species composition, abundance, and biomass in Trout Lake during August 1987 and all six lakes in the Red Lake District during August 1988 and the open water period of 1989 are presented in Tables 4 to 18. Results of the 1989 Lake Nipigon survey are presented in Tables 19 and 20.

Settled net volumes for all 1987 seasonal samples are presented in Table 21. Settled volumes for the 1988 and 1989 seasonal samples are included with the biomass data for each lake (Tables 4 to 18).

ERRATUM

The 1985 and 1986 settled volumes reported in Fee et al. (1989) (Appendix 1, column 15 and Appendix 3, column 13, respectively) are in error. They should be increased by a factor of 10.

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Table 1. Some characteristics of the study lakes. Data for the six lakes in the Red Lake District are from Fee et al. (1989); data for Nipigon are for the year 1990 (Fee unpubl.). Mean depth and water renewal time cannot yet be estimated for Nipigon because depth charts do not exist.

	1	2	3	4	5	6	7	8	9	10	11	12
	A	Ad	t	zm	z	SLD	Ve/Ae	k25	ze	0	SDV	e
Units:	ha	ha	yr	m	m		m	uS/cm	m	oC	m	m-1
Green	89	323	13.0	18	7.7	2.0	12.5	28	5.8	18.3	4.95	0.45
Orange	167	1270	11.6	28	14.4	2.3	20.0	48	5.6	18.9	3.78	0.67
Linge	706	3687	9.8	22	8.4	2.8	9.1	30	5.8	17.6	3.90	0.67
Musclow	2219	35067	7.5	43	19.3	3.6	33.3	43	9.5	16.9	3.98	0.63
Sydney	5748	55297	9.5	71	20.0	7.4	20.0	41	6.3	17.3	4.28	0.61
Trout	34690	106533	22.3	47	13.7	10.5	14.3	62	10.4	15.5	5.03	0.44
Nipigon	484800	2450000	?	165	59.0	7.3	?	147	11.2	10.6	5.37	0.45

1. A - Lake surface area (net water area)
2. Ad - Area of the drainage basin, including the lake area.
3. t - Nominal water renewal time, calculated from lake volume, basin area, and maps of mean annual runoff.
4. zm - Maximum depth.
5. z - Mean depth.
6. SLD - Shoreline development (total, including islands), calculated from 1:50.000 scale maps for all lakes except Nipigon, where a 1:250,000 map was used.
7. Ve/Ae - Ratio of epilimnion volume to epilimnion sediment area during midsummer.
8. k25 - Specific conductance (at 25 oC).
9. ze - June-August 1986 average epilimnion depth.
10. 0e - June-August 1986 average epilimnion temperature.
11. SDV - June-August 1986 average Secchi disk visibility.
12. e - June-August 1986 average vertical extinction coefficient.

Table 2. Species composition, abundance and biomass of zooplankton in lakes in the Red Lake District during synoptic surveys August, 1988. Abundance expressed as average number of individuals per litre, biomass as μg wet weight per litre. Totals also presented per square centimetre of lake surface area. Values represent means from 9 to 20 stations per lake.

		ABUNDANCE							BIOMASS					
LAKE		GREEN	ORANGE	LINGE	MUSCLOW	SYDNEY	TROUT		GREEN	ORANGE	LINGE	MUSCLOW	SYDNEY	TROUT
MEAN DEPTH (m)		9.1	20.2	12.4	22.6	33.8	19.4		9.1	20.2	12.4	22.6	33.8	19.4
SPECIES														
Eucyclops agilis (KOCH)				0.0004							0.01			
Eycyclops speratus (LILLJEBORG)		0.01		0.07	0.0003		0.004		0.34		0.03	0.01		0.14
Cyclops varicans rubellus LILLJEBORG				0.03							0.56			
Cyclops bicuspidatus thomasi FORBES		5.29	3.59	3.76	0.005	1.82	3.95		35.31	21.96	28.69	0.03	15.18	27.84
Acanthocyclops vernalis FISCHER		2.74	0.61	0.48	1.12	0.47	0.47		15.45	3.92	2.68	10.37	4.45	2.62
Mesocyclops edax (FORBES)		0.71		0.72	0.39	0.24	0.79		15.41		15.32	10.19	6.47	20.49
Tropocyclops prasinus mexicanus KIEFER		0.20	0.01	0.08	0.05	0.04	0.004		0.95	0.02	0.16	0.13	0.22	0.01
Diaptomus minutus LILLJEBORG		3.63	2.64	0.97	0.85	0.65	6.28		99.79	59.21	17.69	23.30	17.71	77.72
Diaptomus oregonensis LILLJEBORG		0.01		1.15		1.38	1.28		0.51		36.57		36.57	36.19
Diaptomus sicilis FORBES		0.89		1.66	1.39	1.16			21.31		39.52	33.12	27.71	
Diaptomus leptopus FORBES				0.0001		0.002					0.02		0.32	
Limnocalanus macrurus SARS			0.30		0.56	0.21	0.029			84.17		156.6	58.67	8.06
Senecella calanoides JUDAY						0.02							24.38	
Epischura lacustris FORBES		0.13	0.28	0.004	0.09	0.12	0.27		21.21	27.96	0.19	10.21	8.02	35.86
Cyclopoid Nauplii		6.99	2.34	12.05	5.77	4.01	6.920		9.18	3.07	15.82	7.57	5.26	9.08
Calanoid Nauplii		0.40	0.19	4.00	0.35	2.22	2.192		0.58	0.27	5.84	0.51	3.25	3.20
Daphnia retrocurva FORBES		0.76		0.62		0.36	0.59		11.78		8.94		6.15	8.77
Daphnia galeata mendotae BIRGE		1.49	0.67	1.80	0.26	0.51	1.76		41.59	18.83	56.14	8.99	15.17	52.01
Daphnia longiremis SARS		0.49					0.16		5.51					1.69
Daphnia schoedleri SARS		0.01			0.01	0.01	0.01		1.76			2.06	0.28	1.20
Ceriodaphnia lacustris BIRGE				1.07		0.002	0.004				29.14		0.05	0.12
Chydorus sphaericus (O.F.MULLER)		6.43		2.84	0.24	1.85	3.143		37.36		16.47	1.38	10.76	18.25
Bosmina longirostris (O.F.MULLER)		3.32	2.59	6.95	0.19	0.53	6.10		46.10	35.85	96.64	2.63	7.36	84.65
Diaphanosoma leuchtenberglanum FISCHER		1.76	0.27	2.86	0.47	3.14	1.085		30.41	4.71	49.24	8.15	54.15	18.68
Holopedium gibberum ZADDACH		0.27	0.31	0.37	0.0003	0.28	0.321		35.36	41.31	48.77	0.04	36.91	42.52
Leptodora kindtii (FOCKE)		0.007	0.001	0.002	0.0001	0.001	0.002		21.71	3.60	6.60	0.30	2.78	6.37
Polyphemus pediculus (LINNE')						0.0002							0.04	
Sida crystallina (O.F.MULLER)		0.0001		0.0002		0.002			0.05		0.11		0.97	
Mysis relicta LOVEN			0.00004		0.002	0.0003				1.18		36.26	9.14	
Chaoborus sp.		0.01		0.004		0.005	0.008		130.5		34.23		36.82	59.78
TOTAL	Ind.L-1	35.55	13.80	41.49	11.72	19.02	35.36	µg.L-1	582.1	306.1	512.6	311.8	388.8	515.2
	Ind.cm-2	28.71	0.00	46.83	24.39	53.47	55.88	µg.cm-2	456.2	566.9	518.8	915.3	1220	998.8
CYCLOPOIDA TOTAL	Ind.L-1	15.94	6.54	17.18	7.33	6.58	12.13	µg.L-1	76.6	29.0	63.3	28.3	31.6	60.2
	Ind.cm-2	14.17	12.86	22.96	14.10	19.78	21.17	µg.cm-2	63.5	55.2	77.9	53.9	94.7	116.6
CALANOIDA TOTAL	Ind.L-1	5.07	3.41	7.79	3.22	5.75	10.05	µg.L-1	143.4	171.6	103.1	223.7	176.6	161.0
	Ind.cm-2	3.84	5.44	9.86	8.07	17.15	15.85	µg.cm-2	106.2	330.1	141.2	667.8	653.8	312.2
CLADOCERA TOTAL	Ind.L-1	14.55	3.85	16.51	1.17	6.68	13.17	µg.L-1	231.6	104.3	312.1	23.6	134.6	234.3
	Ind.cm-2	10.70	6.63	14.01	2.22	16.53	18.85	µg.cm-2	176.3	178.3	269.0	47.0	326.2	454.1
NUMBER PLANKTONIC CRUSTACEAN SPECIES		19	11	21	16	22	19							

Table 3. Seasonal mean species composition, abundance and biomass of zooplankton in lakes of the Red Lake District June - October, 1989. Abundance expressed as average number of individuals per litre, biomass as µg wet weight per litre. Totals also presented per square centimetre of lake surface area. Means are from 5 samples taken tri-weekly during open water at a central lake station.

LAKE		ABUNDANCE GREEN	ORANGE	LINGE	MUSCLOW	SYDNEY	TROUT
MEAN DEPTH (m)		16.5	25.3	21.8	35.8	45.8	40.0
SPECIES							
Eucyclops agilis (KOCH)		0.001					
Eycyclops speratus (LILLJEBORG)		0.001		0.00			
Cyclops scutifer SARS				0.01			
Cyclops varicans rubellus LILLJEBORG					0.01	.	
Cyclops bicuspidatus thomasi FORBES		7.13	2.03	9.55	0.41	1.54	4.10
Acanthocyclops vernalis FISCHER		0.18	0.20	0.03	1.04	0.42	0.05
Mesocyclops edax (FORBES)		0.05	0.02	0.15	0.11	0.04	0.07
Tropocyclops prasinus mexicanus KIEFER		0.04	0.01	0.01	0.004	0.09	
Diaptomus minutus LILLJEBORG		2.89	1.18	2.45	0.87	0.29	1.39
Diaptomus oregonensis LILLJEBORG		0.29	0.0001	0.29		0.13	0.56
Diaptomus sicilis FORBES		1.10	0.01	9.58	1.11	1.59	0.004
Limnocalanus macrurus SARS		0.0004	0.34		1.96	0.14	0.11
Senecelia calanoides JUDAY						0.02	
Epischura lacustris FORBES		0.06	0.21	0.14	0.17	0.04	0.06
Cyclopoid Nauplii		15.511	4.93	24.12	2.55	3.90	9.46
Calanoid Nauplii		0.168	0.59	1.85	0.44	0.36	2.65
Daphnia retrocurva FORBES		0.38		0.01	0.02	0.12	0.36
Daphnia galeata mendotae BIRGE		0.25	0.42	0.58	0.36	0.20	0.10
Daphnia longiremis SARS		1.69	0.14			0.003	1.19
Daphnia parvula FORDYCE		0.01					0.02
Daphnia schoedleri SARS				0.01	0.0006		
Chydorus sphaericus (O.F.MULLER)		0.915	0.05	0.64	0.36	0.17	0.18
Bosmina longirostris (O.F.MULLER)		1.54	1.33	2.78	0.68	0.36	1.39
Bosmina coregoni longispina LEYDIG					0.001		
Alona affinis (LEYDIG)				0.01			
Diaphanosoma leuchtenbergianum FISCHER		0.277	0.13	0.20	0.03	0.13	0.03
Holopedium gibberum ZADDACH		0.821	0.37	1.21	0.22	0.15	0.12
Leptodora kindtii (FOCKE)		0.004	0.002	0.0005	0.0003	0.001	0.0003
Polyphemus pediculus (LINNE')		0.0005				0.0002	
Sida crystallina (O.F.MULLER)		0.0002					
Mysis relicta LOVEN					0.0010		
Gammarus lacustris SARS					0.0001		
Chaoborus sp.		0.003		0.001		0.0002	0.0003
TOTAL	Ind.L^{-1}	33.33	11.95	53.63	10.34	9.69	21.84
	Ind.cm^{-2}	54.99	30.43	116.91	37.04	43.53	87.37
CYCLOPOIDA TOTAL	Ind.L^{-1}	14.77	7.20	33.88	4.12	5.98	13.68
	Ind.cm^{-2}	24.37	18.33	73.85	14.75	26.85	54.71
CALANOIDA TOTAL	Ind.L^{-1}	8.79	2.32	14.31	4.55	2.57	4.77
	Ind.cm^{-2}	14.50	5.89	31.19	16.29	11.47	19.07
CLADOCERA TOTAL	Ind.L^{-1}	9.74	2.44	5.44	1.67	1.14	3.39
	Ind.cm^{-2}	16.07	6.22	11.87	5.99	5.19	13.56
NUMBER PLANKTONIC CRUSTACEAN SPECIES		22	16	19	18	19	17

LAKE		BIOMASS GREEN	ORANGE	LINGE	MUSCLOW	SYDNEY	TROUT
MEAN DEPTH (m)		16.5	25.3	21.8	35.8	45.8	40.0
SPECIES							
Eucyclops agilis (KOCH)		0.02					
Eycyclops speratus (LILLJEBORG)		0.02		0.03			
Cyclops scutifer SARS				1.11			
Cyclops varicans rubellus LILLJEBORG					0.04		
Cyclops bicuspidatus thomasi FORBES		48.37	15.95	73.91	3.70	13.21	27.20
Acanthocyclops vernalis FISCHER		1.04	1.12	0.17	8.37	2.56	0.05
Mesocyclops edax (FORBES)		1.24	0.48	8.27	2.50	1.65	1.74
Tropocyclops prasinus mexicanus KIEFER		0.22	0.04	0.03	0.01	0.40	
Diaptomus minutus LILLJEBORG		35.53	21.88	26.35	14.59	5.36	21.61
Diaptomus oregonensis LILLJEBORG		12.57	0.01	6.99		3.13	15.10
Diaptomus sicilis FORBES		27.02	0.17	231.62	27.66	40.85	0.10
Limnocalanus macrurus SARS		0.12	94.27		549.37	39.83	30.64
Senecelia calanoides JUDAY						23.46	
Epischura lacustris FORBES		7.85	25.29	21.95	16.91	4.99	7.25
Cyclopoid Nauplii		20.36	6.48	31.66	3.34	5.12	12.41
Calanoid Nauplii		0.25	0.86	2.70	0.64	0.53	3.87
Daphnia retrocurva FORBES		5.52		0.05	0.28	1.42	4.25
Daphnia galeata mendotae BIRGE		7.64	14.05	16.52	13.76	5.37	3.05
Daphnia longiremis SARS		15.58	1.28			0.07	14.80
Daphnia parvula FORDYCE		0.13					0.25
Daphnia schoedleri SARS				0.74	0.05		
Chydorus sphaericus (O.F.MULLER)		5.31	0.29	3.72	2.11	1.01	1.06
Bosmina longirostris (O.F.MULLER)		21.26	18.59	38.49	9.43	4.98	19.28
Bosmina coregoni longispina LEYDIG					0.03		
Alona affinis (LEYDIG)				0.89			
Diaphanosoma leuchtenbergianum FISCHER		4.77	2.21	3.46	0.59	2.18	0.57
Holopedium gibberum ZADDACH		108.63	48.55	160.58	28.66	20.12	15.42
Leptodora kindtii (FOCKE)		12.39	5.28	1.35	1.00	3.91	0.77
Polyphemus pediculus (LINNE')		0.11				0.05	
Sida crystallina (O.F.MULLER)		0.11					
Mysis relicta LOVEN					25.56		
Gammarus lacustris SARS					4.54		
Chaoborus sp.		20.15		11.56		1.57	2.04
TOTAL	µg.L^{-1}	356.19	256.78	642.16	713.15	181.78	179.64
	µg.cm^{-2}	587.72	653.9	1399.9	2555.5	814.80	718.56
CYCLOPOIDA TOTAL	µg.L^{-1}	71.26	24.06	115.17	18.0	22.94	41.63
	µg.cm^{-2}	117.59	61.05	251.08	64.9	104.05	166.51
CALANOIDA TOTAL	µg.L^{-1}	83.33	142.48	289.62	609.2	118.15	78.56
	µg.cm^{-2}	137.49	362.49	631.37	2175.0	530.21	314.24
CLADOCERA TOTAL	µg.L^{-1}	181.45	90.25	225.81	55.9	39.11	59.45
	µg.cm^{-2}	299.39	230.38	492.27	197.0	172.69	237.81

Table 4. Abundance (individuals per litre) of zooplankton species life stages at 20 stations of Trout Lake, August 5, 1987. Total abundance also expressed per square centimetre of lake surface area.

		ABUNDANCE																				LAKE
	STATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	AVG
	DEPTH (m)	13.5	50.0	20.0	28.7	12.2	29.9	7.0	39.0	38.0	11.9	12.9	15.8	8.7	7.9	8.0	8.0	10.5	9.4	9.5	23.0	18.2
SPECIES																						
C. b. thomasi	FEMALE	1.07	0.30	0.51	0.33	0.35	0.26	0.85	0.37	0.18	0.57	0.26	0.11		0.22	0.32	0.32	0.73	0.45	0.09	0.29	0.38
	FEMALE WITH EGG	0.19			0.03	0.07	0.03	0.24	0.04	0.09	0.14		0.16	0.20		0.11	0.11	0.48	0.09	0.18	0.04	0.11
	MALE	0.44	0.29	1.06	0.56	0.35	0.55	1.22	0.48	0.45	1.00	0.46	0.27	0.20	0.43	0.53	0.64	0.89	0.36	0.27	0.33	0.54
	COPEPOOID I-V	6.45	2.57	10.98	6.66	6.89	4.41	9.00	4.90	3.72	3.56	2.16	3.43	1.76	2.48	2.02	5.32	5.90	4.25	4.66	4.93	4.80
	TOTAL	8.15	3.16	12.55	7.58	7.66	5.24	11.31	5.79	4.44	5.27	2.89	3.97	2.15	3.13	2.98	6.38	8.00	5.15	5.20	5.59	5.83
A. vernalis	FEMALE																					
	FEMALE WITH EGG												0.05									0.003
	MALE			0.04									0.05									0.005
	COPEPOOID I-V	0.38	0.08	0.34	0.12	0.70	0.20	0.12	0.04	0.09	0.14	0.59	0.32	0.20	0.32	0.74	0.85	0.24	0.09	0.36	0.15	0.30
	TOTAL	0.38	0.08	0.38	0.12	0.70	0.20	0.12	0.04	0.09	0.14	0.59	0.43	0.20	0.32	0.74	0.85	0.24	0.09	0.36	0.15	0.31
M. edax	FEMALE	0.06					0.0004					0.07										0.01
	FEMALE WITH EGG		0.003		0.15		0.0004				0.01				0.11		0.21	0.01				0.02
	MALE		0.02								0.07	0.13					0.11	0.08				0.02
	COPEPODID I-V	0.32	0.05			0.07	0.03	1.34	0.04	0.13	0.43	0.33	0.38	0.88	1.30	0.53	1.06	0.48	0.54	0.27	0.26	0.42
	TOTAL	0.38	0.07		0.15	0.07	0.03	1.34	0.04	0.13	0.50	0.52	0.38	0.88	1.40	0.53	1.38	0.57	0.54	0.27	0.26	0.47
D. minutus	FEMALE	0.76	0.25	0.25	0.09	0.21	0.14	0.49	0.11	0.09	0.21	0.39	0.11	0.49	0.54	0.11	0.21	0.97	0.45	0.90	0.15	0.35
	FEMALE WITH EGG	0.25	0.05	0.04	0.03	0.07	0.03		0.11			0.33	0.11	0.20	0.22	0.11	0.21	0.24	0.36	0.45	0.18	0.15
	MALE	1.14	0.29	0.34	0.09	0.35	0.23	0.24	0.19	0.13	0.57	0.26	0.43	0.49	0.43	1.92	1.60	2.18	1.36	1.34	0.48	0.70
	COPEPODID I-V	5.69	1.46	2.04	0.77	3.83	2.16	3.16	1.51	1.12	5.13	2.62	3.70	6.34	4.10	3.94	6.81	13.25	6.42	5.82	3.16	4.15
	TOTAL	7.84	2.05	2.67	0.98	4.45	2.56	3.89	1.92	1.34	5.91	3.61	4.34	7.52	5.29	6.06	8.83	16.64	8.59	8.51	3.97	5.35
D. oregonensis	FEMALE	0.76	0.17	1.27	0.27	0.14	0.20	0.61	0.26	0.29	0.36	0.33	0.16	0.29	0.22	0.11	0.32	0.48		0.54	0.26	0.35
	FEMALE WITH EGG	0.19	0.02	0.04			0.06	0.24	0.04	0.02	0.14		0.05	0.20				0.08			0.04	0.06
	MALE	1.33	0.22	0.55	0.24	0.49	0.20	1.46	0.11	0.22	0.28	0.13		0.29	0.11		0.53	0.24	0.09	0.18	0.40	0.35
	COPEPODID I-V	2.40	0.12	0.30	0.33	0.77	0.09	2.19	0.28	0.16	0.21	0.39	0.59	0.78	0.76	0.32	0.53	0.65	0.72	0.45	0.29	0.62
	TOTAL	4.68	0.52	2.16	0.83	1.39	0.55	4.50	0.69	0.69	1.00	0.85	0.80	1.56	1.08	0.43	1.38	1.45	0.81	1.16	0.99	1.38
L. macrurus	ADULT		0.79	0.01	0.005	0.01	0.10	0.005	0.03	0.02	0.002	0.01	0.03		0.01						0.02	0.05
	COPEPODID I-V		0.79	0.04					0.02				0.16									0.05
	TOTAL		1.58	0.05	0.005	0.01	0.10	0.005	0.05	0.02	0.002	0.01	0.19		0.01						0.02	0.10
E. lacustris	ADULT	0.19	0.00	0.03	0.01	0.06	0.03	0.04	0.03	0.04	0.04	0.03	0.05	0.01	0.03	0.01	0.05	0.06	0.01	0.08	0.03	0.04
	COPEPODID I-V	0.06	0.02	0.17	0.03	0.28		0.36	0.04	0.13	0.43	0.13	0.11	0.49	0.22	0.85	0.32	0.32	0.36	0.18	0.07	0.23
	TOTAL	0.25	0.02	0.20	0.04	0.34	0.03	0.40	0.07	0.17	0.47	0.16	0.15	0.50	0.24	0.86	0.37	0.39	0.38	0.26	0.10	0.27
CYCLOPOID NAUPLII	NI-NVI	10.05	3.80	15.39	9.12	9.88	6.62	23.23	8.21	7.91	13.24	15.09	20.58	8.49	30.02	12.45	17.56	12.36	5.51	8.15	6.70	12.22
CALANOID NAUPLII	NI-NVI	7.90	8.75	9.84	2.40	2.30	3.20	5.72	4.17	4.21	2.99	2.69	10.83	3.03	4.10	7.24	2.23	1.78	1.45	2.06	4.23	4.55
D. retrocurva	FEMALE	0.06	0.10	0.21	0.06	0.42	0.37	0.24	0.19	0.16	0.57	0.07	0.05				0.11	0.32	0.09	0.36	0.33	0.19
	FEMALE WITH EGG						0.03			0.02		0.07								0.09	0.04	0.01
	MALE																					
	JUVENILE	0.88	0.45	0.51	0.27	0.70	0.17	0.36	0.24	0.25	0.78	0.13	0.16	0.49	0.22	0.11	0.43	1.29	0.45	0.72	0.29	0.44
	TOTAL	0.95	0.55	0.72	0.33	1.11	0.68	0.61	0.43	0.43	1.35	0.26	0.21	0.49	0.22	0.11	0.53	1.62	0.54	1.16	0.66	0.64
D. galeata m.	FEMALE	0.13	0.05		0.03		0.09		0.02	0.07	0.07	0.39	0.48	1.17	0.11		0.43	1.54		0.09	0.15	0.24
	FEMALE WITH EGG		0.02				0.03	0.12	0.002		0.07		0.16	0.10	0.32			0.57	0.09		0.04	0.08
	MALE																					
	JUVENILE	0.57	0.08	0.13	0.12	0.21	0.14	0.73	0.11	0.18	0.14	1.97	1.23	2.05	0.76	0.43	1.60	8.16	0.09	0.27	0.18	0.96
	TOTAL	0.70	0.15	0.13	0.15	0.21	0.26	0.85	0.13	0.25	0.28	2.36	1.88	3.32	1.19	0.43	2.02	10.26	0.18	0.38	0.37	1.27
D. longiremis	FEMALE		0.02	0.17	0.09	0.14	0.14		0.24	0.07					0.11						0.15	0.06
	FEMALE WITH EGG	0.06	0.02	0.21	0.03		0.06		0.02	0.02		0.07	0.05									0.03
	MALE																					
	JUVENILE		0.17	0.47	0.15	0.77	0.35	1.34	0.35	0.22	0.14	0.07			0.32			0.40	0.27		0.37	0.27
	TOTAL	0.06	0.20	0.85	0.27	0.90	0.55	1.34	0.60	0.31	0.14	0.13	0.05		0.43			0.40	0.27		0.52	0.35
C. sphaericus	TOTAL	1.83	0.47	0.30	0.09	1.46	0.37	1.34	0.39	0.27	1.57	0.98	1.07	1.17	0.86	2.45	1.92	3.64	1.45	0.63	0.55	1.14
B. longirostris	TOTAL	1.71	0.60	0.72	0.77	2.37	0.92	6.57	1.10	1.75	2.99	3.02	2.41	2.24	5.29	10.21	5.75	3.88	2.71	3.32	1.36	2.98
D. leuchtenbergianum	TOTAL	0.25	0.03	0.17	0.03	0.21	0.09	0.24	0.15	0.04	0.78	2.23	1.72	1.56	1.08	0.64	1.17	5.01	0.18	0.36	0.07	0.80
H. gibberum	TOTAL	0.13	0.001	0.02	0.002	0.02	0.02	0.01	0.01	0.01	0.03	0.06	0.05	0.24	0.07	0.11	0.69	1.94	0.05	1.97	0.02	0.27
L. kindtii	TOTAL					0.001	0.002		0.002		0.01	0.01				0.004	0.001		0.01		0.01	0.00
A. rectangula	TOTAL														0.11							0.01
S. crystallina	TOTAL																			0.001		0.0001
Chaoborus sp	TOTAL											0.01	0.03		0.01	0.003	0.01	0.01				0.003
CYCLOPOIDA TOTAL	Ind.L⁻¹	18.96	7.11	28.32	16.96	18.30	12.10	35.99	14.08	12.57	19.16	19.09	25.35	11.71	34.88	16.70	26.17	21.18	11.30	13.98	12.70	18.83
	Ind.cm⁻²	25.60	35.55	56.65	48.68	22.33	36.17	25.20	54.92	47.75	22.80	24.63	40.06	10.19	27.56	13.36	20.94	22.23	10.62	13.28	29.20	29.39
CALANOIDA TOTAL	Ind.L⁻¹	20.67	12.92	14.92	4.24	8.49	6.44	14.51	6.90	6.44	10.36	7.32	16.31	12.60	10.73	14.59	12.82	20.26	11.22	12.00	9.33	11.65
	Ind.cm⁻²	27.90	64.60	29.84	12.18	10.35	19.25	10.16	26.92	24.48	12.33	9.44	25.77	10.96	8.47	11.67	10.25	21.28	10.55	11.40	21.45	18.96
CLADOCERA TOTAL	Ind.L⁻¹	5.62	2.02	2.90	1.63	6.29	2.78	10.95	2.82	3.05	7.16	9.05	7.39	9.03	9.25	13.94	12.08	26.74	5.40	7.80	3.56	7.47
	Ind.cm⁻²	7.59	10.09	5.81	4.68	7.67	8.32	7.67	11.02	11.60	8.52	11.68	11.68	7.85	7.31	11.16	9.66	28.08	5.07	7.41	8.19	9.55
TOTAL	Ind.L⁻¹	45.25	22.05	46.15	22.84	33.08	21.32	61.46	23.81	22.06	36.68	35.47	49.08	33.34	54.87	45.24	51.08	68.19	27.92	33.77	25.68	37.96
	Ind.cm⁻²	61.09	110.23	92.29	65.54	40.36	63.74	43.02	92.86	83.83	43.65	45.74	77.51	29.00	43.34	36.19	40.85	71.59	26.25	32.09	58.84	57.90

Table 5. Biomass (wet weight μg per litre) of zooplankton species life stages at 20 stations of Trout Lake, August 5, 1987. Total biomass also presented per square centimetre of lake surface area.

SPECIES	STATION / DEPTH (m)	wet weight $\mu g.Ind^{-1}$	1 (13.5)	2 (50.0)	3 (20.0)	4 (28.7)	5 (12.2)	6 (29.9)	7 (7.0)	8 (39.0)	9 (38.0)	10 (11.9)	11 (12.9)	12 (15.8)	13 (8.7)	14 (7.9)	15 (8.0)	16 (8.0)	17 (10.5)	18 (9.4)	19 (9.5)	20 (23.0)	LAKE AVG (18.2)
			BIOMASS																				
C. b. thomasi	FEMALE	22.3	23.9	6.7	11.3	7.2	7.7	5.8	18.9	8.2	4.0	12.7	5.8	2.4		4.8	7.1	7.1	16.2	10.1	2.0	6.6	8.4
	FEMALE WITH EGG	26.7	5.1			0.8	1.9	0.8	6.5	1.2	2.4	3.8		4.3	5.2		2.8	2.8	12.9	2.4	4.8	1.0	2.9
	MALE	14.8	6.5	4.2	15.7	8.3	5.1	8.1	18.0	7.0	6.6	14.7	6.8	4.0	2.9	6.4	7.9	9.4	13.1	5.3	4.0	4.9	7.9
	COPEPODID I-V	5.7	37.0	14.7	63.0	38.2	39.5	25.3	51.6	28.1	21.3	20.4	12.4	19.7	10.1	14.2	11.6	30.5	33.8	24.4	26.7	28.3	27.5
	TOTAL		72.5	25.7	90.0	54.5	54.3	39.9	95.0	44.5	34.3	51.6	25.0	30.3	18.2	25.4	29.4	49.9	76.1	42.2	37.5	40.7	46.8
A. vernalis	FEMALE	40.2																					
	FEMALE WITH EGG	48.3												2.6									0.1
	MALE	12.1			0.5									0.6									0.1
	COPEPODID I-V	5.6	2.1	0.5	1.9	0.7	3.9	1.1	0.7	0.2	0.5	0.8	3.3	1.8	1.1	1.8	4.2	4.8	1.4	0.5	2.0	0.8	1.7
	TOTAL		2.1	0.5	2.4	0.7	3.9	1.1	0.7	0.2	0.5	0.8	3.3	5.0	1.1	1.8	4.2	4.8	1.4	0.5	2.0	0.8	1.9
M. edax	FEMALE	99.6	6.3					0.0					6.5										0.6
	FEMALE WITH EGG	119.5		0.3		17.7		0.0				0.7				12.9		25.4	0.8				2.9
	MALE	27.0		0.5								1.9	3.5					2.9	2.2				0.5
	COPEPODID I-V	18.0	5.7	0.9			1.3	0.5	24.1	0.8	2.4	7.7	5.9	6.8	15.8	23.3	9.6	19.2	8.7	9.8	4.8	4.6	7.6
	TOTAL		12.0	1.7		17.7	1.3	0.6	24.1	0.8	2.4	10.3	16.0	6.8	15.8	36.3	9.6	47.5	11.7	9.8	4.8	4.8	11.7
D. minutus	FEMALE	30.5	23.1	7.7	7.7	2.7	6.4	4.4	14.8	3.3	2.7	6.5	12.0	3.3	14.9	16.4	3.2	6.5	29.5	13.8	27.3	4.5	10.5
	FEMALE WITH EGG	36.5	9.2	1.8	1.5	1.1	2.5	1.1		3.9			12.0	3.9	7.1	7.9	3.9	7.8	8.9	13.2	16.4	6.7	5.5
	MALE	27.2	30.9	7.8	9.2	2.4	9.5	6.3	6.6	5.3	3.7	15.5	7.1	11.7	13.3	11.7	52.1	43.4	59.3	36.9	36.5	13.0	19.1
	COPEPODID I-V	7.7	44.0	11.3	15.7	5.9	29.6	16.7	24.4	11.7	6.7	39.6	20.3	28.6	49.0	31.7	30.4	52.6	102.4	49.6	45.0	24.5	32.1
	TOTAL		107.2	28.6	34.2	12.1	47.9	28.4	45.9	24.2	15.0	61.6	51.4	47.4	84.3	67.8	89.6	110.3	200.1	113.4	125.2	48.7	67.2
D. oregonensis	FEMALE	68.9	52.2	11.6	87.6	18.3	9.6	13.9	41.9	17.8	20.1	24.5	22.6	11.1	20.2	14.9	7.3	22.0	33.4		37.0	17.7	24.2
	FEMALE WITH EGG	82.6	15.7	1.4	3.5			4.8	20.1	3.6	1.9	11.8		4.4	16.1				6.7			3.0	4.6
	MALE	51.2	67.9	11.2	28.2	12.1	24.9	10.3	74.7	5.5	11.5	14.6	6.7		15.0	5.5		27.2	12.4	4.6	9.2	20.7	18.1
	COPEPODID I-V	15.5	37.3	1.8	4.6	5.1	11.9	1.3	34.0	4.4	2.4	3.3	6.1	9.2	12.1	11.7	5.0	8.3	10.0	11.2	7.0	4.6	9.6
	TOTAL		173.1	26.0	123.9	35.5	46.4	30.3	170.6	31.3	35.8	54.2	35.4	24.7	63.4	32.1	12.3	57.5	62.5	15.9	53.1	46.1	56.5
L. macrurus	ADULT	280.6		221.5	1.9	1.3	1.5	29.0	1.3	8.0	5.9	0.5	1.4	7.0		2.4						6.5	14.4
	COPEPODID I-V	210.4		166.1	8.9					4.5				33.8									10.7
	TOTAL			387.7	10.8	1.3	1.5	29.0	1.3	12.6	5.9	0.5	1.4	40.9		2.4						6.5	25.1
E. lacustris	ADULT	262.9	49.8	0.3	7.8	1.8	15.7	7.1	10.0	7.1	9.7	10.2	8.1	12.1	2.0	6.7	2.2	13.1	16.6	3.7	22.1	7.6	10.7
	COPEPODID I-V	53.0	3.4	0.9	9.0	1.6	14.8		19.3	2.3	7.1	22.7	7.0	5.7	25.9	11.5	45.1	16.9	17.1	19.2	9.5	3.9	12.1
	TOTAL		53.2	1.2	16.8	3.4	30.5	7.1	29.3	9.4	16.8	32.9	15.1	17.8	27.9	16.1	47.3	30.0	33.7	22.9	31.6	11.5	22.8
CYCLOPOID NAUPLII	NI-NVI	1.3	13.2	5.0	20.2	12.0	13.0	8.7	30.5	10.8	10.4	17.4	19.8	27.0	11.1	39.4	16.3	23.0	16.2	7.2	10.7	8.8	16.0
CALANOID NAUPLII	NI-NVI	1.5	11.5	12.8	14.4	3.5	3.4	4.7	8.4	6.1	6.2	4.4	3.9	15.8	4.4	6.0	10.6	3.3	2.6	2.1	3.0	6.2	6.7
D. retrocurva	FEMALE	33.8	2.1	3.4	7.2	2.0	14.1	12.6	8.2	6.6	5.3	19.2	2.2	1.8		0.0		3.6	10.9	3.1	12.1	11.2	6.3
	FEMALE WITH EGG	42.2						1.2			0.9		2.8								3.8	1.6	0.5
	MALE	11.1																					
	JUVENILE	6.9	6.1	3.1	3.5	1.8	4.8	1.2	2.5	1.6	1.7	5.4	0.9	1.1	3.3		0.7	2.9	8.9	3.1	4.9	2.0	3.1
	TOTAL		6.2	6.5	10.6	3.8	18.9	15.0	10.7	8.2	7.9	24.6	5.9	2.9	3.3		0.7	6.5	19.8	6.2	20.8	14.8	9.8
D. galeata m.	FEMALE	61.5	7.8	3.1		1.8		5.3		1.3	4.1	4.4	24.2	29.6	72.0			26.2	94.3		5.5	9.0	14.8
	FEMALE WITH EGG	76.8		1.3				2.2	9.3	0.1		5.5		12.4	7.5				43.4	6.9		2.8	5.8
	MALE	27.1																					
	JUVENILE	16.0	9.1	1.3	2.0	1.9	3.3	2.3	11.7	1.7	2.9	2.3	31.5	19.7	32.8		6.8	25.5	130.6	1.4	4.3	2.9	15.3
	TOTAL		16.9	5.7	2.0	3.7	3.3	9.8	21.0	3.2	7.0	12.1	55.7	61.7			6.8	51.7	268.4	8.4	9.8	14.8	35.9
D. longiremis	FEMALE	21.8		0.4	3.7	1.9	3.0	3.1		5.2	1.5											3.2	1.2
	FEMALE WITH EGG	27.3	1.7	0.5	5.8	0.8		1.6		0.6	0.6		1.8	1.5									0.7
	MALE	7.2																					
	JUVENILE	3.4		0.6	1.6	0.5	2.6	1.2	4.6	1.2	0.8	0.5	0.2						1.4	0.9		1.3	0.9
	TOTAL		1.7	1.4	11.1	3.3	5.7	5.9	4.6	7.0	2.8	0.5	2.0	1.5					1.4	0.9		4.5	2.9
C. sphaericus	TOTAL	5.8	10.6	2.7	1.7	0.5	8.5	2.2	7.8	2.3	1.6	9.1	5.7	6.2	6.8		14.2	11.1	21.1	8.4	3.6	3.2	6.6
B. longirostris	TOTAL	13.8	23.6	8.4	10.0	10.6	32.7	12.8	90.9	15.2	24.2	41.4	41.8	33.4	31.1		141.3	79.5	53.7	37.5	45.9	18.8	41.3
D. leuchtenbergianum	TOTAL	17.2	4.4	0.6	2.9	0.5	3.6	1.5	4.2	2.6	0.8	13.5	38.4	29.5	26.9		11.0	20.2	86.3	3.1	6.2	1.3	13.8
H. gibberum	TOTAL	132.4	16.7	0.2	2.6	0.3	2.9	2.1	1.3	1.8	0.7	4.4	8.1	6.1	32.3		14.3	91.3	256.7	6.5	260.9	3.0	36.1
L. kindtii	TOTAL	2944					2.6	6.6		5.0		16.4	15.0				11.8	3.8		41.5		17.1	6.0
A. rectangula	TOTAL	15.0																					0.1
S. crystallina	TOTAL	503.0																			0.6		0.0
Chaoborus sp	TOTAL	7850											80.9	230.0			21.2	65.2	49.5				25.6
CYCLOPOIDA TOTAL	$\mu g.L^{-1}$		99.8	32.8	112.6	84.9	72.4	50.3	150.3	58.3	47.6	80.1	64.1	69.1	46.2	102.9	59.5	125.2	105.3	59.7	56.0	55.0	76.5
	$\mu g.cm^{-2}$		134.7	164.1	225.2	243.6	88.3	150.5	105.2	219.4	181.0	95.3	82.7	109.2	40.2	81.3	47.6	100.2	110.6	56.1	52.3	126.4	139.1
CALANOIDA TOTAL	$\mu g.L^{-1}$		345.1	456.2	200.1	55.9	129.7	99.5	255.5	83.6	79.7	153.5	107.2	146.6	180.0	126.4	159.8	201.0	298.9	154.3	212.9	118.9	178.2
	$\mu g.cm^{-2}$		465.8	2281.2	400.3	160.3	158.3	297.5	178.8	326.0	302.8	182.7	138.3	231.6	156.6	99.9	127.8	160.8	313.8	145.0	202.3	273.4	324.3
CLADOCERA TOTAL	$\mu g.L^{-1}$		82.1	25.5	41.0	22.8	78.2	55.9	140.4	45.2	45.0	122.0	172.6	141.4	212.7	156.0	200.2	264.2	707.4	112.6	347.8	77.5	152.5
	$\mu g.cm^{-2}$		110.9	127.5	82.0	65.4	95.4	167.0	98.3	176.3	170.9	145.2	222.7	223.3	185.0	123.2	160.1	211.3	742.7	105.8	330.4	178.2	277.5
TOTAL	$\mu g.L^{-1}$		527.0	514.6	353.8	163.5	280.3	205.7	546.2	185.1	172.3	355.6	424.8	587.1	438.9	451.2	440.7	655.5	1161.1	326.6	615.8	251.3	432.8
	$\mu g.cm^{-2}$		711.5	2572.9	707.5	469.3	342.0	615.0	382.3	721.7	654.7	423.2	548.1	927.6	381.9	356.5	352.5	524.4	1219.1	307.0	585.0	578.0	787.8

Table 6. Abundance (individuals per litre) of zooplankton species life stages at 19 stations of Trout Lake, August 17-18, 1988. Total abundance also presented per square centimetre of lake surface area.

SPECIES	STATION	1	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	LAKE AVG
	DEPTH (m)	14.0	44.1	24.5	28.0	23.2	32.0	18.3	10.0	31.0	8.2	12.9	11.0	21.8	11.8	11.0	9.0	16.5	10.0	31.0	19.4
		ABUNDANCE																			
E. speratus	TOTAL															0.08					0.004
C. b. thomasi	FEMALE	0.06	0.02	0.14	0.06	0.15	0.08		0.18	0.01	0.11	0.14		0.04	0.15	0.24	0.39	0.16	0.09	0.12	0.11
	FEMALE WITH EGG		0.02		0.03	0.04	0.03	0.05	0.18	0.06			0.01		0.15	0.08	0.39	0.11	0.09	0.09	0.07
	MALE	0.06	0.12	0.29	0.10	0.12	0.17	0.10	0.09	0.14				0.20	0.68	0.16	0.30	0.64	0.44	0.32	0.21
	COPEPODID I-V	4.74	2.14	4.75	4.22	4.95	3.75	3.12	3.91	2.85	2.38	1.51	0.89	2.20	3.76	3.07	3.05	6.65	4.44	5.27	3.56
	TOTAL	4.87	2.30	5.18	4.42	5.26	4.03	3.26	4.35	3.06	2.48	1.65	0.89	2.45	4.74	3.56	4.13	7.56	5.06	5.79	3.96
A. vernalis	FEMALE						0.002														0.0001
	FEMALE WITH EGG	0.001																			0.00004
	MALE																				
	COPEPODID I-V	0.76	0.10	0.32	0.16	0.08	0.08	0.14	0.71	0.03	0.22	0.55	0.40	0.41	1.05	0.89	1.67	0.43	0.80	0.03	0.47
	TOTAL	0.76	0.10	0.32	0.16	0.08	0.09	0.14	0.71	0.03	0.22	0.55	0.40	0.41	1.05	0.89	1.67	0.43	0.80	0.03	0.47
M. edax	FEMALE			0.002		0.005	0.01	0.001	0.36		0.01		0.003	0.01	0.08	0.48			0.02	0.002	0.05
	FEMALE WITH EGG	0.001		0.002				0.001		0.0004	0.001	0.002	0.003	0.001	0.02	0.16		0.002	0.01	0.001	0.01
	MALE	0.06	0.02			0.04		0.05	0.09		0.22	0.34	0.003		0.53	0.40	0.20	0.06	0.09		0.11
	COPEPODID I-V	0.13	0.18	0.11	0.19	0.35	0.17	0.34	1.15	0.12	1.08	0.89	0.24	0.24	2.18	1.29	1.77	0.27	0.80	0.29	0.62
	TOTAL	0.19	0.20	0.11	0.19	0.39	0.18	0.39	1.60	0.12	1.31	1.24	0.25	0.25	2.80	2.34	1.97	0.32	0.91	0.29	0.79
T. p. mexicanus	FEMALE																				
	FEMALE WITH EGG																				
	MALE																				
	COPEPODID I-V											0.07									0.004
	TOTAL											0.07									0.004
D. minutus	FEMALE	0.32	0.08	0.22	0.16	0.23	0.14	0.14	0.53	0.14	0.66	0.55	0.16	0.33	1.28	0.73	1.28	0.21	0.62	0.03	0.41
	FEMALE WITH EGG	0.13	0.06	0.18	0.06	0.23	0.06	0.10	0.16	0.09	0.43	0.41	0.16	0.04	0.38	0.73	0.39	0.11	0.71	0.12	0.24
	MALE	0.95	0.28	0.25	0.22	0.19	0.06	0.38	0.53	0.26	0.76	1.03	0.24	0.45	1.88	1.21	1.97	0.38	1.42	0.23	0.67
	COPEPODID I-V	6.19	1.80	2.77	1.63	1.73	2.35	2.88	5.06	1.58	4.32	8.94	5.01	3.75	8.57	13.17	7.97	3.97	9.86	2.62	4.96
	TOTAL	7.58	2.22	3.42	2.08	2.38	2.60	3.50	6.30	2.07	6.16	10.94	5.58	4.57	12.11	15.84	11.61	4.66	12.61	3.00	6.28
D. oregonensis	FEMALE	0.19	0.10	0.18	0.19	0.08	0.08	0.05	0.18	0.06	0.11	0.07	0.32	0.12	0.45	0.08	0.49		0.62	0.12	0.18
	FEMALE WITH EGG	0.06	0.02	0.04	0.01	0.02						0.004	0.01	0.04	0.08		0.20	0.02	0.09	0.03	0.03
	MALE	0.19	0.02	0.29	0.16	0.19	0.03	0.10		0.20						0.24	0.39	0.05	0.27	0.23	0.12
	COPEPODID I-V	1.39	0.74	1.44	0.80	0.84	0.78	0.91	2.66	0.72	0.76	0.55	0.40	0.45	0.53	0.32	1.38	0.80	1.42	0.89	0.94
	TOTAL	1.83	0.88	1.94	1.17	1.13	0.90	1.06	2.84	0.98	0.86	0.62	0.73	0.61	1.05	0.65	2.46	0.87	2.40	1.27	1.28
L. macrurus	TOTAL		0.28	0.002	0.01	0.001	0.12	0.003		0.003				0.08						0.05	0.03
E. lacustris	ADULT	0.06	0.01	0.02	0.03	0.03	0.03	0.02	0.62	0.01	0.03	0.07	0.06	0.05	0.06	0.48	0.05	0.08	0.20	0.03	0.10
	COPEPODID I-V	0.25	0.02	0.04	0.19		0.14	0.10	0.53	0.03		0.07	0.24	0.08	0.30	0.24	0.20	0.38	0.44	0.03	0.17
	TOTAL	0.31	0.03	0.05	0.22	0.03	0.17	0.11	1.15	0.03	0.03	0.14	0.30	0.14	0.36	0.73	0.25	0.46	0.64	0.05	0.27
CYCLOPOID NAUPLII	I-VI	7.33	3.00	4.54	4.83	5.57	4.45	5.04	4.35	3.92	5.29	7.09	3.15	14.16	11.58	8.00	16.53	7.02	10.30	5.33	6.92
CALANOID NAUPLII	I-VI	1.77	1.06	1.87	1.89	1.73	1.62	2.59	1.69	1.56	1.51	2.13	1.94	4.37	2.33	2.59	5.81	1.98	1.51	1.70	2.19
D. retrocurva	FEMALE	0.13	0.08	0.04	0.03	0.23	0.20	0.10	0.18		0.22	0.14		0.08	0.15	0.89	0.20	0.16	0.18	0.14	0.16
	FEMALE WITH EGG																0.10	0.05			0.01
	MALE																				
	JUVENILE	0.51	0.16	0.50	0.26	0.65	0.22	0.10	0.71	0.09	0.22	1.03	0.24	0.04	0.53	0.81	0.59	0.16	0.80	0.35	0.42
	TOTAL	0.63	0.24	0.54	0.29	0.88	0.42	0.19	0.89	0.09	0.43	1.17	0.24	0.12	0.68	1.70	0.89	0.38	0.98	0.49	0.59
D. galeata m.	FEMALE	0.06				0.08	0.08		0.27	0.03		1.10	0.65	0.16	1.05	1.37	1.48		0.09	0.03	0.34
	FEMALE WITH EGG	0.06		0.04								0.89	0.65	0.04	0.23	0.40	0.30			0.03	0.14
	MALE																				
	JUVENILE	0.13	0.04	0.07	0.03	0.04	0.03		0.44	0.14	0.11	2.96	1.86	0.73	4.44	6.87	5.71	0.05	0.53	0.14	1.28
	TOTAL	0.25	0.04	0.11	0.03	0.12	0.11		0.71	0.17	0.11	4.95	3.15	0.94	5.72	8.65	7.48	0.05	0.62	0.20	1.76
D. longiremis	FEMALE		0.02	0.14	0.03	0.19	0.11			0.03				0.12				0.05		0.06	0.04
	FEMALE WITH EGG		0.06	0.07	0.03	0.04	0.03													0.09	0.02
	MALE					0.04															0.002
	JUVENILE	0.08	0.12	0.36	0.13	0.31	0.25							0.24			0.10		0.09	0.26	0.10
	TOTAL	0.06	0.20	0.58	0.19	0.58	0.39			0.03				0.37			0.10	0.05	0.09	0.40	0.16
D. schoedleri	FEMALE			0.04												0.08					0.01
	FEMALE WITH EGG																				
	MALE																				
	JUVENILE																				
	TOTAL			0.04												0.08					0.01
C. lacustris	TOTAL															0.08					0.004
C. sphaericus	TOTAL	1.01	0.20	0.32	0.35	0.88	0.46	0.62	0.98	0.58	2.38	4.47	1.86	1.06	13.61	16.89	10.23	0.32	2.84	0.63	3.14
B. longirostris	AD+JUV	5.50	2.00	4.43	2.66	3.99	6.30	7.73	14.65	3.00	7.78	5.64	4.04	3.26	6.54	6.22	6.20	4.98	15.18	4.78	6.05
	FEMALE WITH EGG		0.06	0.04		0.04		0.10			0.11		0.08			0.24	0.10	0.11	0.18	0.03	0.06
	TOTAL	5.50	2.06	4.46	2.68	4.03	6.30	7.82	14.65	3.00	7.88	5.64	4.12	3.26	6.54	6.46	6.30	5.09	15.36	4.81	6.10
D. leuchtenbergianum	TOTAL	0.82	0.12	0.22	0.10	0.12	0.11	0.34	1.33	0.43	0.97	1.79	1.45	0.49	3.38	4.28	2.76	0.16	1.42	0.32	1.08
H. gibberum	TOTAL	0.01			0.00		0.00	0.02	0.89	0.01	0.01	0.07	0.01	0.01	2.18	1.21	1.67		0.02		0.32
L. kindtii	TOTAL	0.004	0.003	0.002	0.01	0.005	0.003		0.004	0.002	0.004	0.003	0.002	0.001	0.001					0.002	0.002
Chaoborus sp	TOTAL								0.09			0.01	0.003	0.02	0.002	0.001	0.02			0.0004	0.01
CYCLOPOIDA TOTAL	Ind.L-1	13.15	5.60	10.16	9.60	11.29	8.74	8.83	11.01	7.12	9.30	10.60	4.70	17.26	20.17	14.87	24.30	15.33	17.07	11.44	12.13
	Ind.cm-2	18.41	24.70	24.88	26.88	26.20	27.98	16.17	11.01	22.08	7.63	13.67	5.17	37.64	23.80	16.35	21.87	25.30	17.07	35.45	23.52
CALANOIDA TOTAL	Ind.L-1	11.50	4.47	7.29	5.36	5.27	5.41	7.27	11.99	4.66	8.57	13.84	8.55	9.76	15.85	19.80	20.12	7.98	17.16	6.06	10.05
	Ind.cm-2	16.10	19.69	17.87	15.01	12.22	17.32	13.30	11.99	14.40	7.02	17.86	9.40	21.29	18.71	21.78	18.11	13.17	17.16	18.79	19.47
CLADOCERA TOTAL	Ind.L-1	8.29	2.86	6.27	3.62	6.61	7.82	8.99	19.45	4.31	11.79	18.10	10.83	6.25	32.11	39.35	29.42	6.06	21.33	6.86	13.17
	Ind.cm-2	11.61	12.62	15.35	10.15	15.33	25.02	16.45	19.45	13.36	9.67	23.35	11.92	13.62	37.89	43.28	26.48	9.99	21.33	21.25	25.54
TOTAL	Ind.L-1	32.94	12.93	23.72	18.59	23.17	21.96	25.09	42.54	16.07	29.66	42.54	24.09	33.29	68.14	74.01	73.87	29.37	55.56	24.35	35.36
	Ind.cm-2	46.11	57.01	58.10	52.04	53.76	70.32	45.92	42.54	49.82	24.32	54.88	26.50	72.58	80.40	81.42	66.48	48.46	55.56	76.50	55.88

Table 7. Biomass (wet weight µg per litre) of zooplankton species life stages at 19 stations of Trout Lake, August 17-18, 1988. Total biomass also presented per square centimetre of lake surface area.

	STATION	wet weight µg.ind⁻¹	1	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	LAKE AVG
			BIOMASS																			
	DEPTH (m)		14.0	44.1	24.5	28.0	23.2	32.0	18.3	10.0	31.0	8.2	12.9	11.0	21.8	11.8	11.0	9.0	18.5	10.0	31.0	19.38
E. speratus	TOTAL	32.4															2.8					0.14
C. b. thomasi	FEMALE	22.3	1.4	0.4	3.2	1.4	3.4	1.9		4.0	0.2	2.4	3.1		0.9	3.3	5.4	8.8	3.8	2.0	2.6	2.52
	FEMALE WITH EGG	26.7		0.5		0.9	1.0	0.7	1.3	4.7	1.5			0.1		4.0	2.2	10.5	2.9	2.4	2.3	1.86
	MALE	14.8	0.9	1.8	4.3	1.4	1.7	2.5	1.4	1.3	2.1				3.0	10.0	2.4	4.4	9.5	8.8	4.7	3.05
	COPEPODID I-V	5.7	27.2	12.3	27.3	24.2	28.4	21.5	17.9	22.4	16.4	13.8	8.7	5.1	12.6	21.6	17.8	17.5	38.1	26.5	30.2	20.42
	TOTAL		29.5	15.0	34.7	27.9	34.6	26.6	20.8	32.4	20.2	16.0	11.7	5.2	16.6	38.9	27.5	41.1	54.1	36.4	39.8	27.84
A. vernalis	FEMALE	40.2						0.1														0.004
	FEMALE WITH EGG	48.3	0.04																			0.002
	MALE	12.1																				
	COPEPODID I-V	5.6	4.3	0.6	1.8	0.9	0.4	0.5	0.8	4.0	0.2	1.2	3.1	2.3	2.3	5.9	5.0	9.4	2.4	4.5	0.2	2.62
	TOTAL		4.3	0.6	1.8	0.9	0.4	0.5	0.8	4.0	0.2	1.2	3.1	2.3	2.3	5.9	5.0	9.4	2.4	4.5	0.2	2.62
M. edax	FEMALE	99.6			0.2		0.5	0.7	0.1	36.4		1.3		0.3	0.5	7.5	48.3			1.7	0.2	5.09
	FEMALE WITH EGG	119.5	0.1		0.3				0.1		0.0	0.2	0.2	0.4	0.1	2.2	19.3		0.2	0.7	0.1	1.25
	MALE	27.0	1.7	0.5			1.0		1.3	2.4		5.8	9.3	0.1		14.2	10.9	5.3	1.4	2.4		2.97
	COPEPODID I-V	18.0	2.3	3.2	1.9	3.5	8.2	3.0	6.1	20.8	2.1	19.5	16.1	4.4	4.4	39.3	23.3	31.9	4.8	14.4	5.2	11.18
	TOTAL		4.1	3.6	2.4	3.5	7.7	3.7	7.5	58.6	2.1	26.8	25.6	5.1	5.0	63.2	101.8	37.2	6.5	19.1	5.5	20.49
T. p. mexicanus	FEMALE	6.5																				
	FEMALE WITH EGG	7.7																				
	MALE	4.5																				
	COPEPODID I-V	2.1											0.1									0.01
	TOTAL												0.1									0.01
D. minutus	FEMALE	30.5	9.6	2.4	6.6	4.9	7.0	4.3	4.4	16.2	4.4	19.7	16.8	4.9	9.9	38.9	22.1	39.0	8.5	18.9	0.9	12.50
	FEMALE WITH EGG	36.5	4.6	2.2	6.8	2.3	8.4	2.0	3.5	6.5	3.2	15.8	15.1	5.9	1.5	13.7	26.6	14.4	3.9	26.0	4.2	8.78
	MALE	27.2	25.8	7.6	6.6	6.1	5.2	1.5	10.4	14.5	7.0	20.5	28.1	8.6	12.2	51.1	32.9	53.5	10.2	38.6	6.3	18.18
	COPEPODID I-V	7.7	47.9	13.9	21.4	12.6	13.4	18.2	22.3	39.1	12.2	33.4	69.1	38.7	29.0	66.2	101.8	61.6	30.8	76.2	20.3	38.31
	TOTAL		87.9	26.1	41.4	25.9	34.0	26.0	40.6	76.3	26.8	89.4	129.0	58.1	52.6	170.0	183.4	168.4	51.3	159.7	31.6	77.72
D. oregonensis	FEMALE	68.9	13.1	6.9	12.4	13.2	5.3	5.8	3.3	12.2	4.0	7.4	4.7	22.3	8.4	31.1	5.8	33.9		42.8	7.9	12.64
	FEMALE WITH EGG	82.6	5.2	1.7	3.0	1.2	1.4						0.4	0.4	3.4	8.2		16.3	1.4	7.3	2.4	2.64
	MALE	51.2	9.7	1.0	14.7	6.2	9.8	1.4	4.9		10.3						12.4	20.1	2.7	13.6	11.8	6.38
	COPEPODID I-V	15.5	21.8	11.5	22.4	12.4	13.1	12.2	14.2	41.4	11.2	11.7	6.5	6.3	7.0	8.2	5.0	21.4	12.5	22.1	13.9	14.55
	TOTAL		49.6	21.1	52.5	36.0	29.6	19.4	22.4	53.6	25.5	19.2	13.6	28.9	18.8	45.5	23.0	91.7	18.8	85.6	36.0	36.19
L. macrurus	TOTAL	280.6		77.9	0.8	2.8	0.3	34.4	0.8		0.8				22.9						12.6	8.06
E. lacustris	ADULT	262.9	15.6	2.0	4.7	6.8	6.9	6.9	3.9	163.4	1.4	8.9	19.2	15.9	14.1	16.1	127.5	12.9	22.0	52.5	6.6	26.71
	COPEPODID I-V	53.0	13.4	1.1	1.9	10.2		7.4	5.1	28.3	1.5		3.6	12.9	4.3	18.0	12.9	10.4	19.9	23.5	1.5	9.15
	TOTAL		29.0	3.0	6.6	17.0	6.9	14.3	9.0	191.7	2.9	8.9	22.9	28.8	18.4	32.0	140.3	23.4	41.9	78.1	8.2	35.86
CYCLOPOID NAUPLII	I-VI	1.3	9.6	3.9	6.0	6.3	7.3	5.6	6.6	5.7	5.1	6.9	9.3	4.1	18.6	15.2	10.5	21.7	9.2	13.5	7.0	9.08
CALANOID NAUPLII	I-VI	1.5	2.6	1.5	2.7	2.8	2.5	2.4	3.8	2.5	2.3	2.2	3.1	2.8	8.4	3.4	3.8	8.5	2.9	2.2	2.5	3.20
D. retrocurva	FEMALE	33.8	4.3	2.7	1.2	1.1	7.8	6.6	3.2	6.0		7.3	4.6		2.8	5.1	30.0	6.6	5.4	6.0	4.9	5.56
	FEMALE WITH EGG	42.2																4.2	2.3			0.34
	MALE	11.1																				
	JUVENILE	8.9	3.5	1.1	3.5	1.8	4.5	1.5	0.7	4.9	0.8	1.5	7.1	1.7	0.3	3.6	5.5	4.1	1.1	5.5	2.4	2.87
	TOTAL		7.7	3.8	4.7	2.8	12.3	8.2	3.9	10.9	0.6	8.8	11.7	1.7	3.0	8.7	35.6	14.8	8.8	11.5	7.2	8.77
D. galeata m.	FEMALE	61.5	3.9				4.7	5.2		16.4	1.8		67.7	39.7	10.0	64.7	84.4	90.7		5.5	1.8	20.86
	FEMALE WITH EGG	76.8	4.9		2.8								68.7	49.7	3.1	17.3	31.0	22.7			2.2	10.65
	MALE	27.1																				
	JUVENILE	16.0	2.0	0.6	1.2	0.5	0.6	0.4		7.1	2.3	1.7	47.4	29.7	11.8	71.0	109.9	91.4	0.9	8.5	2.3	20.49
	TOTAL		10.8	0.6	3.9	0.5	5.3	5.6		23.5	4.1	1.7	183.7	119.1	24.9	153.0	225.4	204.7	0.9	14.0	6.3	52.01
D. longiremis	FEMALE	21.8		0.4	3.1	0.7	4.2	2.4			0.6				2.7				1.2		1.3	0.88
	FEMALE WITH EGG	27.3		1.6	2.0	0.9	1.0	0.6													2.4	0.45
	MALE	7.2					0.3															0.01
	JUVENILE	3.4	0.2	0.4	1.2	0.4	1.1	0.9							0.8			0.3		0.3	0.9	0.36
	TOTAL		0.2	2.5	6.3	2.0	6.6	4.1			0.6				3.5			0.3	1.2	0.3	4.5	1.69
D. schoedleri	FEMALE	195.8			7.0												15.8					1.20
	FEMALE WITH EGG	244.5																				
	MALE	100.1																				
	JUVENILE	42.2																				
	TOTAL				7.0												15.8					1.20
C. lacustris	TOTAL	27.2															2.2					0.12
C. sphaericus	TOTAL	5.8	5.9	1.2	1.9	2.0	5.1	2.8	3.6	5.7	3.3	13.8	26.0	10.6	6.2	79.0	98.0	59.4	1.9	16.5	3.7	18.25
B. longirostris	AD+JUV	13.6	76.1	27.7	81.3	36.6	55.3	87.2	106.9	202.8	41.4	107.6	78.1	55.9	45.2	90.5	86.1	65.8	69.0	210.1	66.2	83.67
	FEMALE WITH EGG	17.3		1.0	0.8		0.7		1.7			1.9		1.4			4.2	1.7	1.9	3.1	0.5	0.98
	TOTAL		76.1	28.7	81.9	36.6	55.9	87.2	108.6	202.8	41.4	109.5	78.1	57.3	45.2	90.5	90.3	67.5	70.8	213.2	66.7	84.65
D. leuchtenbergianum	TOTAL	17.2	14.2	2.1	3.7	1.7	2.0	1.9	5.8	22.9	7.4	16.7	30.6	25.1	8.4	58.3	73.8	47.5	2.8	24.5	5.5	18.68
H. gibberum	TOTAL	132.4	1.0			0.3		0.3	2.0	117.5	1.7	1.8	9.1	0.7	0.7	288.7	160.4	221.4		2.2		42.52
L. kindtii	TOTAL	2944	11.6	7.4	6.6	17.7	14.1	10.3		13.1	5.3	11.9	7.6	5.9	1.5	2.8					5.3	8.37
Chaoborus sp	TOTAL	7850				3.1				697.1			101.3	23.8	140.1	14.8	7.9	144.8			2.8	59.78
CYCLOPOIDA TOTAL	µg.L⁻¹		47.5	23.3	44.9	38.6	50.0	36.7	35.6	100.7	27.6	51.0	49.9	16.8	42.4	123.3	147.5	109.5	72.2	73.5	52.4	60.2
	µg.cm⁻²		66.5	102.6	110.1	108.2	116.1	117.5	65.1	100.7	85.6	41.8	64.3	18.4	92.5	145.5	162.2	98.5	119.1	73.5	162.4	116.6
CALANOIDA TOTAL	µg.L⁻¹		169.0	129.6	103.9	83.5	73.4	96.5	76.6	324.0	58.3	119.7	168.6	116.7	119.1	250.9	350.5	292.0	112.7	323.8	90.8	161.0
	µg.cm⁻²		236.6	571.7	254.6	233.8	170.2	308.7	140.2	324.0	180.8	98.2	217.5	128.4	259.6	296.1	385.6	262.8	188.0	323.8	281.6	312.2
CLADOCERA TOTAL	µg.L⁻¹		127.5	46.2	96.1	63.7	101.3	120.3	123.9	396.3	64.5	164.2	347.0	220.8	93.4	681.0	701.5	635.7	86.3	282.2	99.1	234.3
	µg.cm⁻²		178.5	203.9	235.4	178.5	235.1	385.1	226.7	396.3	199.9	134.7	447.6	242.6	203.6	803.8	771.6	572.1	142.4	282.2	307.3	454.1
TOTAL	µg.L⁻¹		344.0	199.2	244.9	189.0	224.7	253.5	236.1	1518.2	150.4	334.9	666.8	377.8	395.0	1070.0	1207.4	1182.0	271.2	679.4	245.2	515.2
	µg.cm⁻²		481.7	878.4	600.1	529.2	521.4	811.3	432.0	1518.2	466.3	274.6	860.1	415.6	861.2	1262.5	1328.1	1063.8	447.5	679.4	760.0	998.8
TOTAL VOLUME SAMPLED	L		1266	3987	2215	2531	2097	2893	1654	904	2802	741	1166	994	1971	1067	994	814	1492	904	2802	1752
SETTLED VOLUME NET PLANKTON	ml		3.1	5.2	3.0	4.1	3.4	3.8	1.1	2.8	4.7	2.0		3.5	6.7	18.9	15.1	15.0	3.8	3.5	4.0	5.6
CALCULATED SAMPLE WET WEIG	mg		435	794	542	478	471	733	391	1372	422	248	778	376	778	1141	1201	962	405	814	687	675
SETTLED VOLUME WET WEIGHT	mg		3100	5200	3000	4050	3400	3800	1050	2800	4700	2000		3500	6700	16900	15100	15000	3800	3500	4000	5347
CALCULATED/SETTLED			0.1	0.2	0.2	0.1	0.1	0.2	0.4	0.5	0.1	0.1		0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1

Table 8. Abundance (individuals per litre) and biomass (μg wet weight per litre) of zooplankton species life stages at Trout Lake station 2 sampled between June 14 - September 12, 1989. Total abundance and biomass also presented per square centimetre.

		ABUNDANCE							BIOMASS					
	*SAMPLE NUMBER	33	41	51	100	108			33	41	51	100	108	
	MONTH	JUNE	JUNE	JULY	AUG	SEPT	SEASON		JUNE	JUNE	JULY	AUG	SEPT	SEASON
	DAY	14	27	11	15	12	MEAN	wet	14	27	11	15	12	MEAN
	DEPTH (m)	40.0	40.0	40.0	40.0	40.0	40.0	weight	40.0	40.0	40.0	40.0	40.0	40.0
SPECIES								μg.ind⁻¹						
C. b. thomasi	FEMALE	0.06	0.23	0.04	0.06	0.19	0.12	22.3	1.39	5.09	0.93	1.39	4.17	2.59
	FEMALE WITH EGG	0.10	0.06	0.02		0.04	0.05	26.7	2.78	1.67	0.56		1.11	1.22
	MALE	0.06	0.15	0.08	0.10	0.04	0.09	14.8	0.92	2.15	1.23	1.54	0.61	1.29
	COPEPODID I-V	1.52	5.91	5.01	3.95	2.87	3.85	5.7	8.71	33.88	28.75	22.67	16.46	22.09
	TOTAL	1.75	6.34	5.16	4.12	3.14	4.10		13.80	42.79	31.46	25.59	22.35	27.20
A. vernalis	FEMALE							40.2						
	FEMALE WITH EGG							48.3						
	MALE							12.1						
	COPEPODID I-V	0.08	0.08		0.02	0.06	0.05	5.6	0.47	0.47		0.12	0.35	0.28
	TOTAL	0.08	0.08		0.02	0.06	0.05		0.08	0.08		0.02	0.06	0.05
M. edax	FEMALE			0.004	0.01		0.002	99.6			0.39	0.65		0.21
	FEMALE WITH EGG			0.01	0.003		0.002	119.5			0.78	0.31		0.22
	MALE				0.02	0.04	0.01	27.0				0.56	1.12	0.34
	COPEPODID I-V	0.08	0.06		0.08	0.04	0.05	18.0	1.50	1.12		1.50	0.75	0.97
	TOTAL	0.08	0.06	0.01	0.11	0.08	0.07		1.50	1.12	1.17	3.02	1.87	1.74
D. minutus	FEMALE		0.25	0.17	0.06	0.29	0.15	30.5		7.60	5.07	1.90	8.87	4.69
	FEMALE WITH EGG		0.02	0.33	0.06	0.02	0.09	36.5		0.76	12.16	2.28	0.76	3.19
	MALE		0.37	0.37	0.17	0.33	0.25	27.2		10.18	10.18	4.52	9.05	6.78
	COPEPODID I-V	1.58	0.62	0.06	1.71	0.52	0.90	7.7	12.22	4.82	0.48	13.18	4.02	6.94
	TOTAL	1.58	1.27	0.94	2.00	1.16	1.39		12.22	23.36	27.89	21.88	22.69	21.61
D. oregonensis	FEMALE	0.02	0.08	0.08	0.17	0.02	0.07	68.9	1.43	5.73	5.73	11.46	1.43	5.16
	FEMALE WITH EGG	0.02		0.004	0.04		0.01	82.6	1.72		0.32	3.44		1.10
	MALE	0.08	0.04	0.02	0.06		0.04	51.2	4.26	2.13	1.06	3.19		2.13
	COPEPODID I-V	0.52	0.44	0.42	0.17	0.62	0.43	15.5	8.07	6.78	6.46	2.58	9.69	6.72
	TOTAL	0.64	0.56	0.52	0.44	0.64	0.56		15.48	14.64	13.58	20.67	11.12	15.10
D. sicilis	FEMALE							122.2						
	FEMALE WITH EGG							146.7						
	MALE							99.4						
	COPEPODID I-V			0.02			0.004	23.8			0.50			0.10
	TOTAL			0.02			0.004				0.50			0.10
L. macrurus	TOTAL	0.10	0.25	0.17	0.01	0.01	0.11	280.6	28.45	70.03	48.51	3.28	2.92	30.64
E. lacustris	ADULT		0.04	0.02	0.02	0.02	0.02	262.9		10.94	5.47	4.10	5.81	5.26
	JUVENILE	0.06	0.08	0.02	0.02		0.04	53.0	3.31	4.41	1.10	1.10		1.99
	TOTAL	0.06	0.12	0.04	0.04	0.02	0.06		3.31	15.35	6.57	5.20	5.81	7.25
CYCLOPOID NAUPLII	NI-NVI	8.13	16.85	12.60	5.60	4.10	9.46	1.3	10.68	22.12	16.55	7.34	5.38	12.41
CALANOID NAUPLII	NI-NVI	4.76	2.31	3.95	1.81	0.40	2.65	1.5	6.96	3.38	5.78	2.65	0.58	3.87
D. retrocurva	FEMALE		0.10	0.10	0.08	0.04	0.07	33.8		3.51	3.51	2.81	1.40	2.25
	FEMALE WITH EGG							42.2						
	MALE							11.1						
	JUVENILE	0.12	0.77	0.12	0.31	0.12	0.29	6.9	0.86	5.28	0.86	2.14	0.86	2.00
	TOTAL	0.12	0.87	0.23	0.40	0.17	0.36		0.86	8.79	4.37	4.95	2.26	4.25
D. galeata m.	FEMALE			0.02	0.06	0.04	0.02	61.5			1.28	3.83	2.56	1.53
	FEMALE WITH EGG		0.02				0.004	76.8		1.60				0.32
	MALE							27.1						
	JUVENILE		0.15	0.02	0.10	0.10	0.07	16.0		2.33	0.33	1.66	1.66	1.20
	TOTAL		0.17	0.04	0.17	0.15	0.10			3.93	1.61	5.50	4.22	3.05
D. longiremis	FEMALE	0.06	0.25	0.75	0.27	0.10	0.29	21.8	1.36	5.44	16.33	5.90	2.27	6.26
	FEMALE WITH EGG	0.15	0.31	0.46	0.21	0.02	0.23	27.3	3.97	8.51	12.48	5.67	0.57	6.24
	MALE							7.2						
	JUVENILE	0.71	0.89	1.21	0.44	0.10	0.67	3.4	2.43	3.08	4.15	1.50	0.36	2.30
	TOTAL	0.92	1.46	2.41	0.92	0.23	1.19		7.76	17.03	32.96	13.07	3.19	14.80
D. parvula	FEMALE			0.02	0.02		0.01	16.0			0.33	0.33		0.13
	FEMALE WITH EGG	0.02					0.004	20.0	0.42					0.08
	MALE							6.4						
	JUVENILE	0.04					0.01	3.5	0.15					0.03
	TOTAL	0.06		0.02	0.02		0.02		0.56		0.33	0.33		0.25
C. sphaericus	TOTAL	0.12	0.23	0.02	0.15	0.40	0.18	5.8	0.72	1.33	0.12	0.85	2.29	1.06
B. longirostris	AD+JUV	0.98	1.83	2.50	0.92	0.64	1.37	13.8	13.53	25.33	34.54	12.66	8.92	19.00
	FEMALE WITH EGG	0.04		0.04			0.02	17.3	0.72		0.72			0.29
	TOTAL	1.02	1.83	2.54	0.92	0.64	1.39		14.25	25.33	35.26	12.66	8.92	19.28
D. leuchtenbergianum	TOTAL				0.10	0.06	0.03	17.2				1.79	1.08	0.57
H. gibberum	TOTAL	0.15	0.35	0.06		0.02	0.12	132.4	19.27	46.81	8.26		2.75	15.42
L. kindtii	TOTAL	0.0003		0.001			0.0003	2943.8	0.77		3.06			0.77
Chaoborus sp	TOTAL					0.001	0.0003	7850.0					10.21	2.04
CYCLOPOIDA TOTAL	Ind.L⁻¹	10.05	23.34	17.77	9.85	7.38	13.68	μg.L⁻¹	26.4	66.5	49.2	36.1	30.0	41.63
	Ind.cm⁻²	40.19	93.35	71.09	39.39	29.54	54.71	μg.cm⁻²	105.8	266.0	196.7	144.3	119.8	166.51
CALANOIDA TOTAL	Ind.L⁻¹	7.15	4.51	5.65	4.29	2.24	4.77	μg.L⁻¹	66.4	126.8	102.8	53.7	43.1	78.56
	Ind.cm⁻²	28.61	18.05	22.59	17.17	8.95	19.07	μg.cm⁻²	265.7	507.0	411.3	214.8	172.5	314.24
CLADOCERA TOTAL	Ind.L⁻¹	2.39	4.91	5.33	2.66	1.66	3.39	μg.L⁻¹	44.2	103.2	86.0	39.2	24.7	59.45
	Ind.cm⁻²	9.57	19.64	21.30	10.65	6.66	13.56	μg.cm⁻²	176.8	412.9	343.9	156.6	98.9	237.81
TOTAL	Ind.L⁻¹	19.59	32.76	28.77	16.80	11.29	21.84	μg.L⁻¹	137.1	296.5	238.0	128.9	97.8	179.64
	Ind.cm⁻²	78.37	131.04	115.07	67.20	45.15	87.37	μg.cm⁻²	548.2	1185.9	951.9	515.7	391.2	718.56
	TOTAL VOLUME SAMPLED							L	3616	3616	3616	3616	3616	3616
	SETTLED VOLUME NET PLANKTON							ml	10.35	18.00	15.10	6.15	4.70	10.9
	CALCULATED SAMPLE WET WEIGHT							mg	495.6	1072.0	860.5	466.2	353.6	649.6
	SETTLED VOLUME WET WEIGHT							mg	10350	18000	15100	6150	4700	10860
	CALCULATED/SETTLED								0.05	0.06	0.06	0.08	0.08	0.06

* Sample number is equivalent to Station number in Fee et al. (1989)

Table 9. Abundance (individuals per litre) and biomass (μg wet weight per litre) of zooplankton species life stages at 9 stations in Green Lake , August 22, 1988. Total abundance and biomass also presented per square centimetre of lake surface area.

		ABUNDANCE											BIOMASS									
	STATION	1	2	3	4	5	6	7	8	9	LAKE AVG	wet weight	1	2	3	4	5	6	7	8	9	LAKE AVG
SPECIES	DEPTH (m)	6.6	13.2	8.6	4.1	9.2	18.2	4.9	6.5	11.0	9.1	μg.ind^{-1}	6.6	13.2	8.6	4.1	9.2	18.2	4.9	6.5	11.0	9.1
E. speratus	TOTAL				0.01		0.001			0.08	0.01	32.4				0.4		0.0			2.6	0.34
C. b. thomasi	FEMALE	0.13			0.66		0.10			0.08	0.11	22.3	3.0			14.4		2.2			1.8	2.38
	FEMALE WITH EGG						0.05				0.01	26.7						1.3				0.14
	MALE		0.13		1.94	0.19	0.24			0.57	0.34	14.8		2.0		28.7	2.8	3.6			8.4	5.06
	COPEPODID I-V		6.72	0.41	17.71	4.13	5.27	0.64	0.40	8.32	4.83	5.7		38.5	2.4	102	23.7	30.2	3.1	2.3	47.7	27.73
	TOTAL	0.13	6.85	0.41	20.30	4.32	5.66	0.64	0.40	8.97	5.29		3.0	40.5	2.4	145	26.5	37.3	3.1	2.3	57.9	35.31
A. vernalis	FEMALE											40.2										
	FEMALE WITH EGG											48.3										
	MALE		0.07								0.01	12.1		0.8								0.09
	COPEPODID I-V	2.02	1.21	2.68	5.18	2.78	0.54	3.98	3.76	2.42	2.73	5.6	11.3	6.8	15.1	29.2	15.7	3.0	22.4	21.2	13.6	15.36
	TOTAL	2.02	1.28	2.68	5.18	2.78	0.54	3.98	3.76	2.42	2.74		11.3	7.6	15.1	29.2	15.7	3.0	22.4	21.2	13.6	15.45
M. edax	FEMALE		0.004	0.03						0.01	0.004	99.6		0.4	2.6						0.5	0.39
	FEMALE WITH EGG		0.001	0.01	0.01						0.002	119.6		0.1	0.8	1.6						0.28
	MALE	0.13		0.62	0.43	0.19		0.36	0.13	0.24	0.24	27.0	3.6		16.7	11.6	5.2		9.7	3.6	6.5	6.34
	COPEPODID I-V	0.54	0.13	0.41	1.08	0.19	0.24	0.36	0.67	0.57	0.47	18.0	9.7	2.4	7.4	19.5	3.5	4.4	6.5	12.1	10.2	8.41
	TOTAL	0.67	0.14	1.06	1.53	0.38	0.24	0.72	0.81	0.81	0.71		13.3	2.9	27.5	32.7	8.6	4.4	16.3	15.7	17.2	15.41
T.p.mexicanus	FEMALE		0.13			0.10	0.10	0.18	0.13		0.07	8.5		0.9			0.6	0.6	1.2	0.9		0.46
	FEMALE WITH EGG											7.7										
	MALE		0.34		0.22		0.05		0.13	0.08	0.09	4.5		1.5		1.0		0.2		0.8	0.4	0.40
	COPEPODID I-V			0.10		0.19				0.08	0.04	2.1			0.2		0.4				0.2	0.09
	TOTAL		0.47	0.10	0.22	0.29	0.15	0.18	0.27	0.16	0.20			2.4	0.2	1.0	1.0	0.8	1.2	1.5	0.5	0.96
D. minutus	FEMALE	0.67	0.34	0.62	1.73	1.06	0.34	2.89	2.42	0.73	1.20	30.5	20.5	10.2	18.9	52.6	32.2	10.4	88.1	73.7	22.1	36.52
	FEMALE WITH EGG	0.81	0.20	0.31	1.08	0.48	0.05	0.90	0.67	0.24	0.53	36.5	29.5	7.4	11.3	39.5	17.5	1.8	33.0	24.6	8.9	19.27
	MALE	2.28	0.47	0.83	2.38	1.25	0.24	3.07	2.15	0.89	1.51	27.2	62.1	12.8	22.4	64.6	33.9	6.6	83.5	58.4	24.2	40.96
	COPEPODID I-V	0.54	0.20	0.21	1.08	0.19	0.15	0.64		0.65	0.39	7.7	4.2	1.6	1.6	8.3	1.5	1.1	4.2		5.0	3.05
	TOTAL	4.30	1.21	1.96	6.26	2.98	0.78	7.41	5.24	2.50	3.63		116	31.9	54.2	165	85.1	19.9	209	157	60.2	99.79
D. oregonensis	FEMALE						0.05				0.01	68.9						3.4				0.37
	FEMALE WITH EGG											82.6										
	MALE											51.2										
	COPEPODID I-V									0.08	0.01	15.5									1.3	0.14
	TOTAL						0.05			0.08	0.01							3.4			1.3	0.51
D. sicilis	FEMALE											122.2										
	FEMALE WITH EGG											146.7										
	MALE											99.4										
	COPEPODID I-V		1.88	0.31	2.16	0.67	1.27		0.13	1.62	0.89	23.8		44.9	7.4	51.5	16.0	30.3		3.2	38.5	21.31
	TOTAL		1.88	0.31	2.16	0.67	1.27		0.13	1.62	0.89			44.9	7.4	51.5	16.0	30.3		3.2	38.5	21.31
E. lacustris	ADULT	0.02	0.02	0.06	0.32	0.01	0.01	0.02	0.02	0.13	0.07	262.9	4.4	4.4	15.3	85.2	3.2	2.4	5.9	4.4	34.5	17.75
	COPEPODID I-V	0.03	0.02	0.01	0.43			0.01		0.08	0.07	53.0	1.8	0.9	0.7	22.9			0.6		4.3	3.46
	TOTAL	0.05	0.03	0.07	0.76	0.01	0.01	0.03	0.02	0.21	0.13		6.2	5.3	15.9	108	3.2	2.4	6.5	4.4	38.8	21.21
CYCLOPOID NAUPLII	NI-NVI	6.18	5.58	5.88	13.61	3.36	14.25	6.87	4.44	2.75	6.99	1.3	8.1	7.3	7.7	17.9	4.4	18.7	9.0	5.8	3.6	9.18
CALANOID NAUPLII	NI-NVI	0.81	0.13	0.21	0.43		0.20	0.90	0.67	0.24	0.40	1.5	1.2	0.2	0.3	0.6		0.3	1.3	1.0	0.4	0.58
D. retrocurva	FEMALE		0.13	0.52	0.65		0.05	0.36		0.48	0.24	33.8		4.5	17.4	21.9		1.6	12.2		16.4	8.23
	FEMALE WITH EGG											42.2										
	MALE											11.1										
	JUVENILE	0.13	0.74	0.31	2.38	0.10	0.20			0.81	0.52	6.9	0.9	5.1	2.1	16.3	0.7	1.3			5.5	3.55
	TOTAL	0.13	0.87	0.83	3.02	0.10	0.24	0.36		1.29	0.76		0.9	9.6	19.5	38.2	0.7	3.0	12.2		21.9	11.78
D. galeata m.	FEMALE	0.13	0.07	0.10	0.86	0.29	0.15	0.54	0.40	0.40	0.33	61.5	8.3	4.1	6.3	53.1	17.7	9.0	33.3	24.8	24.8	20.16
	FEMALE WITH EGG					0.10		0.18	0.13		0.05	76.8					7.4		13.9	10.3		3.61
	MALE											27.1										
	JUVENILE	1.34	0.67	0.41	2.81	1.15	0.05	0.64	1.48	1.62	1.12	16.0	21.5	10.8	6.6	44.9	18.4	0.8	8.7	23.7	25.9	17.92
	TOTAL	1.48	0.74	0.52	3.67	1.54	0.20	1.27	2.02	2.02	1.49		29.8	14.9	12.9	98.0	43.5	9.8	55.9	58.8	50.7	41.59
D. longiremis	FEMALE				0.43		0.05				0.05	21.8				9.4		1.1				1.17
	FEMALE WITH EGG		0.07		0.86		0.15				0.12	27.3		1.8		23.6		4.0				3.26
	MALE											7.2										
	JUVENILE		0.67		1.51		0.49			0.16	0.31	3.4		2.3		5.2		1.7			0.6	1.08
	TOTAL		0.74		2.81		0.68			0.16	0.49			4.1		38.2		6.7			0.6	5.51
D. schoedleri	FEMALE									0.08	0.01	195.6									15.8	1.76
	FEMALE WITH EGG											244.5										
	MALE											100.1										
	JUVENILE						0.05				0.01	42.2						2.1				
	TOTAL						0.05			0.08	0.01							2.1			15.8	1.76
C. sphaericus	TOTAL	2.82	3.96	7.02	11.86	6.53	0.98	9.58	10.62	4.52	6.43	5.8	16.4	23.0	40.7	69.0	37.9	5.7	55.6	61.6	26.3	37.36
B. longirostris	AD+JUV	2.42	1.55	2.17	5.40	3.84	0.98	6.33	5.78	0.81	3.25	13.8	33.5	21.4	30.0	74.7	53.1	13.5	87.6	80.0	11.2	44.99
	FEMALE WITH EGG				0.22	0.10		0.18		0.08	0.06	17.3				3.7	1.7		3.1		1.4	1.10
	TOTAL	2.42	1.55	2.17	5.62	3.94	0.98	6.51	5.78	0.89	3.32		33.5	21.4	30.0	78.5	54.8	13.6	90.7	80.0	12.6	46.10
D. leuchtenbergianum	TOTAL	3.23	1.21	1.86	3.24	2.02	0.24	0.54	2.82	0.73	1.76	17.2	55.6	20.8	32.0	55.8	34.7	4.2	9.3	46.6	12.5	30.41
H. gibberum	TOTAL	0.27	0.07	0.31	0.43	0.29	0.29	0.18	0.40	0.16	0.27	132.4	35.6	8.9	41.0	57.2	38.1	38.8	23.9	53.4	21.4	35.36
L. kindtii	TOTAL	0.002	0.01	0.01	0.01	0.01	0.003	0.01	0.002	0.01	0.01	2944	4.9	37.1	19.0	39.7	17.7	9.0	33.3	4.9	29.7	21.71
S. crystallina	TOTAL		0.001								0.0001	503.0		0.4								0.05
Chaoborus sp	TOTAL		0.03	0.01	0.08	0.01	0.02	0.005		0.002	0.01	7850		198	51	636	47	192	35		16	130.5
CYCLOPOIDA TOTAL	ind.L^{-1}	9.0	14.3	10.1	40.9	11.1	20.8	12.3	9.7	15.2	15.94	μg.L^{-1}	36	61	53	226	56	64	52	47	96	78.6
	ind.cm^{-2}	5.9	18.9	8.7	16.7	10.2	37.9	6.0	8.3	16.7	14.17	μg.cm^{-2}	24	80	45	93	52	117	25	30	105	63.5
CALANOIDA TOTAL	ind.L^{-1}	5.2	3.3	2.5	9.6	3.7	2.3	8.4	6.1	4.7	5.07	μg.L^{-1}	124	82	78	325	104	56	217	165	139	143.4
	ind.cm^{-2}	3.4	4.3	2.2	3.9	3.4	4.2	4.1	3.9	5.1	3.84	μg.cm^{-2}	82	109	67	133	96	102	106	107	153	106.2
CLADOCERA TOTAL	ind.L^{-1}	10.4	9.2	12.7	30.7	14.4	3.7	18.5	21.6	9.9	14.55	μg.L^{-1}	177	140	195	475	227	91	281	307	191	231.6
	ind.cm^{-2}	6.8	12.1	10.9	12.6	13.3	6.7	9.0	14.1	10.9	10.70	μg.cm^{-2}	117	185	188	195	209	166	138	200	211	176.3
TOTAL	ind.L^{-1}	24.5	26.7	25.4	81.1	29.2	26.8	39.1	37.4	29.7	35.55	μg.L^{-1}	336	481	377	1662	435	403	585	519	442	582.1
	ind.cm^{-2}	16.2	35.3	21.8	33.3	26.9	48.8	19.2	24.3	32.7	28.71	μg.cm^{-2}	222	635	324	681	400	733	287	337	466	456.2
											TOTAL VOLUME SAMPLED	L	597	1193	777	371	832	1645	443	588	994	827
											SETTLED VOLUME NET PLANKTON	ml	5.0	6.2	4.7	6.3	5.5	6.7	4.7	5.7	7.4	5.8
											CALCULATED SAMPLE WET WEIGHT	mg	200	574	293	616	362	663	259	305	439	412
											SETTLED VOLUME WET WEIGHT	mg	5000	6200	4700	6300	5500	6700	4700	5700	7400	5800
											CALCULATED/SETTLED		0.04	0.09	0.06	0.10	0.07	0.10	0.06	0.05	0.06	0.07

Table 10. Abundance (individuals per litre) and biomass (µg wet weight per litre) of zooplankton species life stages at Green Lake station 6 sampled between June 14 and October 11, 1989. Total abundance and biomass also presented per square centimetre of lake surface area.

		ABUNDANCE								BIOMASS						
	*SAMPLE NUMBER	36	43	49	98	106	114			36	43	49	98	106	114	
	MONTH	JUNE	JUNE	JULY	AUG	SEPT	OCT	SEASON		JUNE	JUNE	JULY	AUG	SEPT	OCT	SEASON
	DAY	14	27	11	15	12	11	MEAN	wet	14	27	11	15	12	11	MEAN
	DEPTH (m)	18.0	18.0	16.0	17.0	15.0	15.0	16.5	weight	18.0	18.0	16.0	17.0	15.0	15.0	16.5
SPECIES									µg.ind^{-1}							
E. agilis	TOTAL			0.003	0.003			0.001	18.2			0.1	0.1			0.02
E. speratus	TOTAL		0.001	0.002	0.001			0.001	32.4		0.02	0.1	0.02			0.02
C. b. thomasi	FEMALE	0.14	0.36	0.31	0.05	0.11	0.22	0.20	22.3	3.0	8.1	6.8	1.1	2.4	4.8	4.39
	FEMALE WITH EGG	0.01		0.10		0.003	0.11	0.04	26.7	0.2		2.3		0.1	2.4	0.83
	MALE	0.41	0.87	0.46	0.10	0.27	0.27	0.40	14.8	6.1	12.8	6.8	1.4	4.0	4.0	5.85
	COPEPODID I-V	14.32	10.94	6.09	2.93	4.19	0.54	6.50	5.7	82.1	62.8	34.9	16.8	24.0	3.1	37.30
	TOTAL	14.87	12.18	6.96	3.07	4.57	1.14	7.13		91.4	83.7	50.9	19.3	30.5	14.4	48.37
A. vernalis	FEMALE	0.003		0.001				0.001	40.2	0.1		0.1				0.03
	FEMALE WITH EGG								48.3							
	MALE								12.1							
	COPEPODID I-V	0.27			0.10	0.49	0.22	0.18	5.6	1.5			0.5	2.8	1.2	1.01
	TOTAL	0.28		0.001	0.10	0.49	0.22	0.18		1.7		0.1	0.5	2.8	1.2	1.04
M. edax	FEMALE		0.001	0.001		0.01	0.01	0.004	99.6		0.1	0.1		1.4	0.7	0.37
	FEMALE WITH EGG				0.003			0.001	119.5				0.3			0.05
	MALE				0.003			0.001	27.0				0.1			0.01
	COPEPODID I-V			0.05		0.11	0.11	0.04	18.0			0.9		2.0	2.0	0.81
	TOTAL		0.001	0.05	0.01	0.12	0.12	0.05			0.1	1.0	0.4	3.3	2.6	1.24
T.p.mexicanus	FEMALE				0.05	0.05		0.02	6.5				0.3	0.4		0.11
	FEMALE WITH EGG								7.7							
	MALE			0.05	0.05	0.05		0.03	4.5			0.2	0.2	0.2		0.11
	COPEPODID I-V								2.1							
	TOTAL			0.05	0.10	0.11		0.04				0.2	0.5	0.6		0.22
D. minutus	FEMALE		0.55	0.41	0.10	0.33		0.23	30.5		16.7	12.5	2.9	9.9		7.00
	FEMALE WITH EGG		0.02	0.20	0.07	0.19	0.05	0.09	36.5		0.7	6.2	2.1	5.8	1.7	2.75
	MALE		0.41	0.51	0.14	0.38	0.38	0.30	27.2		11.2	13.9	3.9	10.4	10.4	8.28
	COPEPODID I-V	4.74	5.97	2.82		0.05		2.26	7.7	36.6	46.2	21.8		0.4		17.50
	TOTAL	4.74	6.95	3.94	0.31	0.95	0.44	2.89		36.6	74.7	64.4	8.9	26.5	12.0	35.53
D. oregonensis	FEMALE					0.11	0.33	0.07	68.9					7.5	22.5	4.99
	FEMALE WITH EGG						0.22	0.04	82.6						15.0	2.50
	MALE						0.38	0.06	51.2						19.5	3.25
	COPEPODID I-V						0.71	0.12	15.5						11.0	1.83
	TOTAL					0.11	1.63	0.29						7.5	67.9	12.57
D. sicilis	FEMALE				0.003			0.001	122.2				0.4			0.06
	FEMALE WITH EGG								146.7							
	MALE	0.003					0.05	0.01	99.4	0.3					5.4	0.95
	COPEPODID I-V			0.31	0.96	2.07	3.21	1.09	23.8			7.3	22.9	49.3	76.5	26.01
	TOTAL	0.003		0.31	0.96	2.07	3.26	1.10		0.3		7.3	23.3	49.3	82.0	27.02
L. macrurus	TOTAL		0.001	0.002				0.0004	280.6		0.2	0.5				0.12
E. lacustris	ADULT	0.01	0.03	0.01	0.002	0.01	0.07	0.02	262.9	3.0	7.5	1.7	0.5	3.6	18.8	5.83
	COPEPODID I-V	0.18	0.05					0.04	53.0	9.7	2.4					2.02
	TOTAL	0.19	0.07	0.01	0.002	0.01	0.07	0.06		12.7	9.9	1.7	0.5	3.6	18.8	7.85
CYCLOPOID NAUPLII	NI-NVI	5.06	18.60	35.17	21.55	7.89	4.79	15.51	1.3	6.6	24.4	46.2	28.3	10.4	6.3	20.36
CALANOID NAUPLII	NI-NVI	0.14	0.46	0.36			0.05	0.17	1.5	0.2	0.7	0.5			0.1	0.25
D. retrocurva	FEMALE	0.09		0.10	0.19	0.22		0.10	33.8	3.1		3.5	6.5	7.3		3.39
	FEMALE WITH EGG	0.05						0.01	42.2	1.5						0.26
	MALE								11.1							
	JUVENILE	0.09	0.23	0.26	0.24	0.82		0.27	6.9	0.6	1.6	1.8	1.6	5.6		1.87
	TOTAL	0.23	0.23	0.36	0.43	1.03		0.38		5.2	1.6	5.2	8.1	12.9		5.52
D. galeata m.	FEMALE		0.05	0.05		0.11	0.16	0.06	61.5		2.8	3.1		6.7	10.0	3.78
	FEMALE WITH EGG				0.05		0.05	0.02	76.8				2.9		3.3	1.05
	MALE						0.05	0.01	27.1						1.5	0.25
	JUVENILE	0.05		0.46	0.24	0.16	0.05	0.16	16.0	0.7		7.4	3.8	2.6	0.9	2.57
	TOTAL	0.05	0.05	0.51	0.29	0.27	0.33	0.25		0.7	2.8	10.5	6.8	9.3	15.7	7.64
D. longiremis	FEMALE		0.09	0.10	0.48	0.65		0.22	21.8		2.0	2.2	10.5	14.2		4.82
	FEMALE WITH EGG	0.18	0.46	0.36	0.53	0.33		0.31	27.3	4.0	9.9	7.8	11.5	7.1		6.73
	MALE					0.05		0.01	7.2					0.4		0.07
	JUVENILE	0.23	0.64	1.64	2.11	2.28		1.15	3.4	0.8	2.2	5.6	7.3	7.9		3.96
	TOTAL	0.41	1.19	2.10	3.12	3.32		1.69		4.8	14.1	15.7	29.3	29.6		15.58
D. parvula	FEMALE				0.05			0.01	16.0				0.8			0.13
	FEMALE WITH EGG								20.0							
	MALE								6.4							
	JUVENILE								3.5							
	TOTAL				0.05			0.01					0.8			0.13
C. sphaericus	TOTAL	0.68	1.14	1.13	0.53	1.41	0.60	0.92	5.8	4.0	6.6	6.5	3.1	8.2	3.5	5.31
B. longirostris	AD+JUV	2.92	3.01	1.08	0.72	1.09	0.16	1.50	13.8	40.4	41.6	14.9	10.0	15.1	2.3	20.70
	FEMALE WITH EGG		0.14			0.05	0.05	0.04	17.3		1.9			0.8	0.8	0.67
	TOTAL	2.92	3.15	1.08	0.72	1.14	0.22	1.54		40.4	43.5	14.9	10.0	16.8	3.0	21.26
D. leuchtenbergianum	TOTAL	0.09	0.23	0.67	0.24	0.33	0.11	0.28	17.2	1.6	3.9	11.5	4.1	5.6	1.9	4.77
H. gibberum	TOTAL	0.78	2.10	1.79	0.10	0.16		0.82	132.4	102.6	277.7	237.2	12.7	21.6		108.63
L. kindtii	TOTAL		0.003	0.02				0.004	2943.8		8.4	65.9				12.39
P. pediculus	TOTAL		0.003					0.0005	228.0		0.6					0.11
S. crystallina	TOTAL				0.001	0.001		0.0002	503.0				0.3	0.3		0.11
Chaoborus sp	TOTAL				0.01	0.003		0.003	7850.0				94.2	26.7		20.16
CYCLOPOIDA TOTAL	ind.L^{-1}	20.21	30.78	42.25	24.83	13.18	6.26	22.92	µg.L^{-1}	99.7	108.2	98.5	49.1	47.6	24.5	71.3
	ind.cm^{-2}	36.38	55.41	67.60	42.20	19.77	9.39	37.82	µg.cm^{-2}	179.5	194.7	157.6	83.4	71.3	36.8	117.6
CALANOIDA TOTAL	ind.L^{-1}	5.08	7.48	4.62	1.27	3.14	5.46	4.51	µg.L^{-1}	49.8	85.4	64.5	32.7	86.9	180.7	83.3
	ind.cm^{-2}	9.14	13.47	7.39	2.17	4.71	8.19	7.44	µg.cm^{-2}	89.6	153.7	103.1	55.5	130.3	271.1	137.5
CLADOCERA TOTAL	ind.L^{-1}	5.15	8.08	7.65	5.47	7.67	1.25	5.88	µg.L^{-1}	159.3	359.3	367.5	75.1	103.4	24.1	181.4
	ind.cm^{-2}	9.28	14.54	12.24	9.30	11.51	1.88	9.70	µg.cm^{-2}	286.7	646.7	587.9	127.7	155.2	36.1	299.4
TOTAL	ind.L^{-1}	30.44	46.34	54.52	31.57	23.99	12.97	33.31	µg.L^{-1}	308.8	552.9	530.4	251.1	264.6	229.4	356.19
	ind.cm^{-2}	54.79	83.42	87.22	53.67	35.99	19.46	54.95	µg.cm^{-2}	555.8	995.2	848.7	426.9	396.9	344.1	587.72
TOTAL VOLUME SAMPLED									L	1627	1627	1446	1537	1356	1356	1492
SETTLED VOLUME NET PLANKTON									ml	17.00	17.00	21.10	7.60	7.70	7.00	12.90
CALCULATED SAMPLE WET WEIGHT									mg	502.5	899.7	767.2	385.9	358.8	311.0	537.5
SETTLED VOLUME WET WEIGHT									mg	17000	17000	21100	7600	7700	7000	12900
CALCULATED/SETTLED										0.03	0.05	0.04	0.05	0.05	0.04	0.04

* Sample number is equivalent to Station number in Fee et. al. (1989)

Table 11. Abundance (individuals per litre) and biomass (µg wet weight per litre) of zooplankton species life stages at 9 stations in Orange Lake, August 23, 1988. Total abundance and biomass also presented per square centimetre of lake surface area.

SPECIES	STATION / DEPTH (m)	ABUNDANCE 1 (16.0)	2 (21.8)	3 (23.8)	4 (28.5)	5 (17.5)	6 (27.8)	7 (27.5)	8 (8.8)	9 (10.1)	LAKE AVG (20.2)	wet weight µg.Ind−1	BIOMASS 1 (16.0)	2 (21.8)	3 (23.8)	4 (28.5)	5 (17.5)	6 (27.8)	7 (27.5)	8 (8.8)	9 (10.1)	LAKE AVG (20.2)
C. b. thomasi	FEMALE	0.11	0.04		0.03		0.03			0.18	0.04	22.3	2.5	0.9		0.7		0.7			3.9	0.97
	FEMALE WITH EGG			0.04						0.09	0.01	26.7			1.0						2.3	0.37
	MALE		0.04	0.04	0.06	0.05	0.03	0.06		0.09	0.04	14.8		0.6	0.5	0.9	0.7	0.5	0.9		1.3	0.61
	COPEPODID I-V	3.48	3.75	3.42	2.37	4.08	2.40	2.62	5.04	4.22	3.49	5.7	19.9	21.5	19.6	13.6	23.4	13.8	15.1	28.9	24.2	20.01
	TOTAL	3.59	3.84	3.50	2.48	4.13	2.46	2.69	5.04	4.58	3.59		22.4	23.0	21.2	15.2	24.2	15.0	16.0	28.9	31.8	21.96
A. vernalis	FEMALE			0.04							0.00	40.2			1.5							0.16
	FEMALE WITH EGG											48.3										
	MALE				0.46		0.03				0.06	12.1				5.6		0.4				0.67
	COPEPODID I-V	0.77	0.82	0.40	0.28	0.45	0.26	0.58	0.50	0.88	0.55	5.8	4.3	4.6	2.3	1.6	2.6	1.4	3.2	2.8	5.0	3.09
	TOTAL	0.77	0.82	0.44	0.74	0.45	0.29	0.58	0.50	0.88	0.61		4.3	4.6	3.8	7.2	2.6	1.8	3.2	2.8	5.0	3.92
T. p. mexicanus	FEMALE											6.5										
	FEMALE WITH EGG											7.7										
	MALE				0.03						0.003	4.5				0.1						0.02
	COPEPODID I-V						0.03				0.004	2.1						0.1				0.01
	TOTAL				0.03		0.03				0.01					0.1		0.1				0.02
D. minutus	FEMALE	0.72	0.12	0.18	0.12	0.45	0.10	0.19	2.22	1.32	0.60	30.5	21.9	3.7	5.6	3.8	13.8	2.9	5.8	67.5	40.2	18.37
	FEMALE WITH EGG	0.66	0.16	0.15		0.35	0.22	0.13	0.40	0.35	0.27	36.5	24.2	6.0	5.4		12.9	8.2	4.7	14.7	12.9	9.88
	MALE	0.44	0.29	0.48	0.19	0.76	0.26	0.35	3.12	2.11	0.89	27.2	12.0	7.8	13.0	5.1	20.5	7.0	9.6	84.9	57.4	24.14
	COPEPODID I-V	0.61	0.57	0.52	0.62	0.50	0.58	0.51	2.02	2.02	0.88	7.7	4.7	4.4	4.0	4.8	3.9	4.5	4.0	15.6	15.6	6.83
	TOTAL	2.43	1.14	1.32	0.94	2.07	1.15	1.18	7.76	5.81	2.64		62.8	21.9	28.0	13.7	51.1	22.5	24.0	182.8	126.1	59.21
L. macrurus	TOTAL	0.21	0.51	0.66	0.53	0.19	0.35	0.22	0.01	0.02	0.30	280.6	60.0	143.1	185.8	148.8	53.0	97.6	61.2	1.8	6.2	84.17
E. lacustris	ADULT	0.05	0.05	0.02	0.03	0.04	0.01	0.01	0.13	0.21	0.06	262.9	12.7	14.1	6.0	7.2	11.6	2.6	3.2	33.1	56.4	16.32
	COPEPODID I-V	0.55	0.33	0.22	0.09	0.10		0.13	0.20	0.35	0.22	53.0	29.3	17.3	11.7	5.0	5.3		6.8	10.7	18.7	11.64
	TOTAL	0.60	0.38	0.24	0.12	0.14	0.01	0.14	0.33	0.57	0.28		42.0	31.4	17.8	12.1	16.9	2.6	9.9	43.8	75.1	27.96
CYCLOPOID NAUPLII	NI-NVI	2.70	3.26	2.91	2.59	4.64	1.98	1.64	0.71	0.70	2.34	1.3	3.6	4.3	3.8	3.4	6.1	2.6	2.0	0.9	0.9	3.07
CALANOID NAUPLII	NI-NVI	0.22	0.24	0.11	0.12	0.10	0.16	0.26	0.20	0.26	0.19	1.5	0.3	0.4	0.2	0.2	0.1	0.2	0.4	0.3	0.4	0.27
D. galeata m.	FEMALE	0.17	0.08	0.11	0.03	0.10	0.03	0.10	0.40	0.09	0.12	61.5	10.2	5.0	6.8	1.9	6.2	2.0	5.9	24.8	5.4	7.57
	FEMALE WITH EGG	0.06	0.12	0.04	0.03	0.05	0.03	0.03			0.04	76.8	4.2	9.4	2.8	2.4	3.9	2.5	2.5			3.07
	MALE											27.1										
	JUVENILE	0.83	0.82	0.37	0.37	0.35	0.22	0.54	1.01	0.09	0.51	16.0	13.3	13.1	5.9	6.0	5.6	3.6	8.7	16.1	1.4	8.19
	TOTAL	1.05	1.02	0.52	0.44	0.50	0.29	0.67	1.41	0.18	0.67		27.7	27.5	15.5	10.3	15.7	8.0	17.1	40.9	6.8	18.83
B. longirostris	JUVENILE	3.09	2.20	2.10	1.25	1.46	1.31	1.70	5.75	4.31	2.57	13.8	42.8	30.5	29.0	17.3	20.2	18.2	23.5	79.5	59.7	35.62
	FEMALE WITH EGG							0.03		0.09	0.01	17.3							0.6		1.5	0.23
	TOTAL	3.09	2.20	2.10	1.25	1.46	1.31	1.73	5.75	4.40	2.59		42.8	30.5	29.0	17.3	20.2	18.2	24.0	79.5	61.2	35.85
D. leuchtenbergianum	TOTAL	0.22	0.61	0.44	0.12	0.35	0.16	0.16	0.30	0.09	0.27	17.2	3.8	10.5	7.6	2.2	6.1	2.8	2.8	5.2	1.5	4.71
H. gibberum	TOTAL	0.28		0.44	0.06	0.40	0.10	0.32	1.21		0.31	132.4	36.5		58.5	8.3	53.4	12.7	42.4	160.1		41.31
L. kindtii	TOTAL	0.001	0.005	0.000	0.0004		0.002		0.001	0.001	0.001	2943.8	2.0	15.0	1.4	1.1		5.9		3.7	3.2	3.60
M. relicta	TOTAL						0.0004				0.00004	26500						10.6				1.18
CYCLOPOIDA TOTAL	Ind.L−1	7.07	7.92	6.84	5.83	9.22	4.77	4.80	6.25	6.16	6.54	µg.L−1	30.3	31.9	28.7	25.9	32.8	19.4	21.3	32.7	37.7	29.0
	Ind.cm−2	11.30	17.26	16.29	16.62	16.14	13.26	13.20	5.50	6.22	12.86	µg.cm−2	48.5	69.6	68.4	73.9	57.4	54.1	58.4	28.7	38.0	55.2
CALANOIDA TOTAL	Ind.L−1	3.46	2.28	2.34	1.71	2.50	1.67	1.80	8.30	6.66	3.41	µg.L−1	165.1	196.7	231.7	174.8	121.3	123.0	95.5	228.7	207.7	171.6
	Ind.cm−2	5.54	4.96	5.57	4.88	4.38	4.64	4.94	7.30	6.73	5.44	µg.cm−2	264.1	428.8	551.5	498.3	212.2	342.0	262.7	201.2	209.8	330.1
CLADOCERA TOTAL	Ind.L−1	4.64	3.84	3.50	1.87	2.72	1.86	2.88	8.67	4.67	3.85	µg.L−1	112.8	83.5	111.9	39.1	95.4	47.5	86.2	289.5	72.8	104.3
	Ind.cm−2	7.42	8.37	8.32	5.34	4.76	5.17	7.92	7.63	4.71	6.63	µg.cm−2	180.5	182.1	266.4	111.5	166.9	132.1	237.1	254.7	73.5	178.3
TOTAL	Ind.L−1	15.17	14.03	12.68	9.41	14.45	8.30	9.48	23.22	17.49	13.80	µg.L−1	308.2	312.1	372.4	239.9	249.4	200.6	203.0	550.8	318.2	306.1
	Ind.cm−2	24.27	30.59	30.18	26.83	25.28	23.06	26.06	20.43	17.66	27.88	µg.cm−2	493.08	680.45	886.31	683.76	436.53	557.61	558.20	484.68	321.33	566.9
TOTAL VOLUME SAMPLED												L	1446	1971	2152	2576	1582	2513	2486	796	913	1643
SETTLED VOLUME NET PLANKTON												ml	5.4	7.4								
CALCULATED SAMPLE WET WEIGHT												mg	445.7	615.1	801.2	618.1	394.6	504.1	504.6	438.2	290.5	461.2
SETTLED VOLUME WET WEIGHT												mg	5400	7400								
CALCULATED/SETTLED													0.08	0.08								

Table 12. Abundance (individuals per litre) and biomass (μg wet weight per litre) of zooplankton species life stages at the central station in Orange Lake sampled between June 14 and October 11, 1989. Total abundance and biomass also presented per square centimetre of lake surface area.

		ABUNDANCE								BIOMASS						
	*SAMPLE NUMBER	37	44	48	97	105	113			37	44	48	97	105	113	
	MONTH	JUNE	JUNE	JULY	AUG	SEPT	OCT	SEASON		JUNE	JUNE	JULY	AUG	SEPT	OCT	SEASON
	DAY	14	27	11	15	12	11	MEAN	wet	14	27	11	15	12	10	MEAN
	DEPTH (m)	25.0	26.0	26.0	25.0	25.0	25.0	25.3	weight	25.0	26.0	26.0	25.0	25.0	25.0	25.3
SPECIES									μg.ind^{-1}							
C. b. thomasi	FEMALE	0.07	0.41	0.16	0.03	0.03	0.13	0.14	22.3	1.48	9.03	3.47	0.73	0.73	2.92	3.06
	FEMALE WITH EGG	0.10	0.06	0.06	0.004		0.002	0.04	26.7	2.63	1.67	1.67	0.11		0.05	1.02
	MALE	0.07	0.22	0.06	0.10	0.07	0.30	0.13	14.8	0.97	3.23	0.92	1.45	0.97	4.36	1.98
	COPEPODID I-V	2.43	0.59	1.03	3.67	1.80	0.82	1.72	5.7	13.92	3.40	5.91	21.07	10.35	4.70	9.89
	TOTAL	2.66	1.28	1.31	3.81	1.90	1.25	2.03		18.98	17.32	11.97	23.36	12.05	12.04	15.95
A. vernalis	FEMALE						0.0004	0.0001	40.2						0.02	0.00
	FEMALE WITH EGG								48.3							
	MALE								12.1							
	COPEPODID I-V	0.43	0.47	0.03	0.13	0.07	0.07	0.20	5.6	2.40	2.63	0.18	0.74	0.37	0.37	1.11
	TOTAL	0.43	0.47	0.03	0.13	0.07	0.07	0.20		2.40	2.63	0.18	0.74	0.37	0.39	1.12
M. edax	FEMALE						0.002	0.0003	99.6						0.20	0.03
	FEMALE WITH EGG								119.5							
	MALE						0.03	0.01	27.0						0.88	0.15
	COPEPODID I-V	0.03					0.07	0.02	18.0	0.59					1.18	0.30
	TOTAL	0.03					0.10	0.02		0.59					2.27	0.48
T. p. mexicanus	FEMALE								6.5							
	FEMALE WITH EGG								7.7							
	MALE				0.03			0.01	4.5				0.15			0.02
	COPEPODID I-V	0.03						0.01	2.1	0.07						0.01
	TOTAL	0.03			0.03			0.01		0.07			0.15			0.04
D. minutus	FEMALE	0.89		0.12	0.23	0.13	0.03	0.23	30.5	26.97		3.80	6.99	4.00	1.00	7.13
	FEMALE WITH EGG	0.03	0.03		0.13	0.16	0.03	0.06	36.5	1.20	1.14		4.79	5.99	1.12	2.37
	MALE	0.85	0.06	0.12	0.33	0.33	0.03	0.29	27.2	23.18	1.70	3.39	8.92	8.92	0.89	7.83
	COPEPODID I-V	1.77	0.03	0.81	0.89		0.03	0.59	7.7	13.69	0.24	6.27	6.84		0.25	4.55
	TOTAL	3.54	0.12	1.06	1.57	0.62	0.13	1.18		65.03	3.08	13.46	27.54	18.90	3.27	21.88
D. oregonensis	FEMALE						0.001	0.0001	68.9						0.06	0.01
	FEMALE WITH EGG								82.6							
	MALE								51.2							
	COPEPODID I-V								15.5							
	TOTAL						0.001	0.0001							0.06	0.01
D. sicilis	FEMALE						0.001	0.0002	122.2						0.15	0.03
	FEMALE WITH EGG								146.7							
	MALE						0.001	0.0001	99.4						0.08	0.01
	COPEPODID I-V	0.03						0.01	23.8	0.78						0.13
	TOTAL	0.03					0.002	0.01		0.78					0.23	0.17
L. macrurus	TOTAL	0.66	0.59	0.47	0.10	0.20		0.34	280.6	184.05	166.32	131.30	27.61	56.36		94.27
E. lacustris	ADULT	0.16	0.09	0.09	0.03	0.02		0.07	262.9	43.12	24.61	24.61	8.62	4.31		17.54
	COPEPODID I-V	0.16	0.06	0.12	0.43	0.10		0.15	53.0	8.70	3.31	6.62	22.61	5.22		7.74
	TOTAL	0.33	0.16	0.22	0.46	0.11		0.21		51.81	27.92	31.23	31.23	9.53		25.29
CYCLOPOID NAUPLII	NI-NVI	4.26	6.43	10.61	4.00	1.64	2.66	4.93	1.3	5.60	8.44	13.92	5.26	2.15	3.49	6.48
CALANOID NAUPLII	NI-NVI	0.10	1.68	1.37	0.26	0.03	0.07	0.59	1.5	0.14	2.46	2.01	0.38	0.05	0.10	0.86
D. galeata m.	FEMALE		0.06	0.09	0.13	0.23	0.07	0.10	61.5		3.83	5.75	8.06	14.11	4.03	5.97
	FEMALE WITH EGG	0.01		0.12	0.03	0.07		0.04	76.8	0.47		9.59	2.52	5.04		2.94
	MALE					0.30	0.07	0.06	27.1					8.00	1.78	1.63
	JUVENILE		0.19	0.31	0.49	0.23	0.10	0.22	16.0		3.00	4.99	7.88	3.68	1.58	3.52
	TOTAL	0.01	0.25	0.53	0.66	0.82	0.23	0.42		0.47	6.83	20.33	18.46	30.82	7.38	14.05
D. longiremis	FEMALE						0.13	0.02	21.8						2.86	0.48
	FEMALE WITH EGG						0.10	0.02	27.3						2.68	0.45
	MALE								7.2							
	JUVENILE						0.62	0.10	3.4						2.14	0.36
	TOTAL						0.85	0.14							7.69	1.28
C. sphaericus	TOTAL						0.30	0.05	5.8						1.71	0.29
B. longirostris	AD+JUV	1.77	1.75	3.31	0.46		0.46	1.29	13.8	24.51	24.18	45.77	6.35		6.35	17.86
	FEMALE WITH EGG		0.09	0.09			0.07	0.04	17.3		1.62	1.62			1.13	0.73
	TOTAL	1.77	1.84	3.40	0.46		0.52	1.33		24.51	25.80	47.38	6.35		7.49	18.59
D. leuchtenbergianum	TOTAL		0.12	0.25	0.30	0.10		0.13	17.2		2.15	4.30	5.09	1.70		2.21
H. gibberum	TOTAL	0.36	0.59	0.62	0.36	0.10	0.16	0.37	132.4	47.76	78.47	82.60	47.76	13.03	21.71	48.55
L. kindtii	TOTAL		0.004	0.002	0.004	0.001		0.002	2943.8		11.48	5.74	12.07	2.41		5.28
CYCLOPOIDA TOTAL	ind.L^{-1}	7.41	8.17	11.95	7.97	3.61	4.07	7.1985	μg.L^{-1}	27.6	28.4	26.1	29.5	14.6	18.2	24.06
	ind.cm^{-2}	18.53	21.25	31.07	19.94	9.02	10.18	18.33	μg.cm^{-2}	69.1	73.8	67.8	73.8	36.4	45.5	61.05
CALANOIDA TOTAL	ind.L^{-1}	4.66	2.56	3.12	2.39	0.97	0.20	2.3166	μg.L^{-1}	301.8	199.8	178.0	86.8	84.8	3.7	142.48
	ind.cm^{-2}	11.64	6.65	8.11	5.99	2.43	0.49	5.89	μg.cm^{-2}	754.5	519.4	462.8	216.9	212.1	9.1	362.49
CLADOCERA TOTAL	ind.L^{-1}	2.14	2.81	4.81	1.78	1.02	2.07	2.4360	μg.L^{-1}	72.7	124.7	160.4	89.7	48.0	46.0	90.25
	ind.cm^{-2}	5.35	7.31	12.50	4.44	2.54	5.17	6.22	μg.cm^{-2}	181.9	324.3	416.9	224.3	119.9	115.0	230.38
TOTAL	ind.L^{-1}	14.21	13.54	19.88	12.14	5.60	6.34	11.95	μg.L^{-1}	402.20	352.89	364.42	206.00	147.37	67.82	256.78
	ind.cm^{-2}	35.52	35.22	51.68	30.36	13.99	15.84	30.43	μg.cm^{-2}	1005.5	917.52	947.49	514.99	368.42	169.55	653.91
TOTAL VOLUME SAMPLED									L	2260	2350	2350	2260	2260	2260	2290
SETTLED VOLUME NET PLANKTON									ml	8.50	21.00	42.70	13.20	6.50	6.80	16.45
CALCULATED SAMPLE WET WEIGHT									mg	909.0	829.4	856.5	465.6	333.1	153.3	591.1
SETTLED VOLUME WET WEIGHT									mg	8500	21000	42700	13200	6500	6800	16450
CALCULATED/SETTLED										0.11	0.04	0.02	0.04	0.05	0.02	0.05

* Sample number is equivalent to Station number in Fee et al. (1989)

Table 13. Abundance (individuals per litre) and biomass (μg wet weight per litre) of zooplankton life stages at 9 stations of Linge Lake, August 20, 1988. Total abundance and biomass also presented per square centimetre of lake surface area.

		ABUNDANCE											BIOMASS									
	STATION	1	2	3	4	5	6	7	8	9	LAKE AVG	wet	1	2	3	4	5	6	7	8	9	LAKE AVG
SPECIES	DEPTH (m)	4.2	5.5	11.5	10.3	20.7	22.0	15.0	13.5	9.2	12.4	weight μg.ind⁻¹	4.2	5.5	11.5	10.3	20.7	22.0	15.0	13.5	9.2	12.4
E. agilis	TOTAL		0.004								0.0004	18.2		0.1								0.0
E. speratus	TOTAL		0.64	0.002		0.01	0.001		0.001		0.07	32.4			0.1		0.2	0.02		0.03		0.0
C. varicans r.	TOTAL		0.16	0.08							0.03	5.7		4.6	0.4							0.6
C. b. thomasi	FEMALE		0.48	0.46	0.09	0.17	0.08	0.12	0.13		0.17	22.3		10.7	10.3	1.9	3.8	1.8	2.6	2.9		3.8
	FEMALE WITH EGG		0.01	0.15			0.04	0.01			0.02	26.7		0.2	4.1			1.1	0.2			0.6
	MALE	0.21	0.48	0.69	0.34	0.38	0.68	0.30	0.62	0.19	0.42	14.8	3.1	7.1	10.2	5.1	5.6	10.0	4.4	7.8	2.8	6.2
	COPEPODID I-V	0.63	0.98	3.84	3.08	5.94	3.76	3.43	5.25	1.44	3.15	5.7	3.6	5.5	22.0	17.7	34.0	21.6	19.7	30.1	8.3	18.1
	TOTAL	0.84	1.94	5.15	3.51	6.49	4.56	3.86	5.90	1.63	3.76		6.7	23.6	46.6	24.6	43.5	34.5	26.9	40.8	11.1	28.7
A. vernalis	FEMALE											40.2										
	FEMALE WITH EGG											48.3										
	MALE											12.1										
	COPEPODID I-V	2.10	1.45	0.31		0.13	0.08		0.13	0.10	0.48	5.6	11.8	8.1	1.7		0.7	0.5		0.7	0.5	2.7
	TOTAL	2.10	1.45	0.31		0.13	0.08		0.13	0.10	0.48		11.8	8.1	1.7		0.7	0.5		0.7	0.5	2.7
M. edax	FEMALE		0.04	0.005	0.09	0.003		0.01	0.004	0.02	0.02	99.6		4.0	0.5	8.5	0.3		1.5	0.4	1.8	1.9
	FEMALE WITH EGG		0.002	0.001	0.01	0.01	0.01	0.004	0.004	0.01	0.01	119.5		0.2	0.1	1.3	1.3	1.2	0.4	0.5	0.7	0.6
	MALE		0.16			0.08				0.10	0.04	27.0		4.3			2.3				2.6	1.0
	COPEPODID I-V	1.68	1.77	0.54		0.17	0.32	0.12	0.13	1.15	0.65	18.0	30.3	31.9	9.7		3.1	5.8	2.1	2.4	20.8	11.8
	TOTAL	1.68	1.97	0.54	0.10	0.27	0.33	0.14	0.14	1.27	0.72		30.3	40.4	10.3	9.8	6.9	7.0	4.0	3.3	25.9	16.3
T. p. mexicanus	FEMALE											6.5										
	FEMALE WITH EGG											7.7										
	MALE											4.5										
	COPEPODID I-V	0.42			0.09	0.04			0.13		0.08	2.1	0.9			0.2	0.1			0.3		0.2
	TOTAL	0.42			0.09	0.04			0.13		0.08		0.9			0.2	0.1			0.3		0.2
D. minutus	FEMALE	0.42		0.08	0.43	0.08	0.04	0.30	0.26	0.19	0.20	30.5	12.8		2.3	13.0	2.6	1.2	9.0	8.0	5.8	6.1
	FEMALE WITH EGG	0.06	0.05	0.005	0.03	0.21	0.04	0.12	0.13	0.07	0.08	36.5	1.9	1.8	0.2	1.2	7.7	1.5	4.3	4.8	2.6	2.9
	MALE	0.21	0.16	0.15	0.26	0.21	0.08	0.06	0.33	0.10	0.17	27.2	5.7	4.4	4.2	7.0	5.8	2.2	1.6	8.9	2.6	4.7
	JUVENILE	1.68	0.01	0.23	0.77	0.47	0.36	0.24	0.13	0.77	0.52	7.7	13.0	0.1	1.8	6.0	3.6	2.8	1.8	1.0	5.9	4.0
	TOTAL	2.37	0.22	0.47	1.49	0.98	0.52	0.71	0.85	1.13	0.97		33.5	6.3	8.5	27.1	19.7	7.6	16.8	22.7	17.0	17.7
D. oregonensis	FEMALE	0.05	0.32	0.08	0.26	0.04	0.12	0.18		0.10	0.13	68.9	3.6	22.1	5.3	17.7	2.9	8.3	12.2		6.6	8.8
	FEMALE WITH EGG		0.32	0.04	0.07	0.01	0.003	0.03	0.02	0.05	0.06	82.6		26.6	3.2	5.7	0.4	0.2	2.4	2.0	4.0	5.0
	MALE	0.05	0.48	0.38	0.26			0.18	0.46	0.19	0.22	51.2	2.7	24.7	19.7	13.1			9.1	23.5	9.8	11.4
	COPEPODID I-V	1.05	1.45	1.00	0.77	0.13	0.20	0.89	0.39	0.77	0.74	15.5	16.3	22.5	15.5	12.0	2.0	3.1	13.8	6.1	11.9	11.5
	TOTAL	1.16	2.57	1.50	1.35	0.17	0.32	1.27	0.88	1.10	1.15		22.6	95.9	43.6	48.5	5.3	11.6	37.6	31.7	32.3	36.6
D. sicilis	FEMALE											122.2										
	FEMALE WITH EGG											146.7										
	MALE											99.4										
	COPEPODID I-V			1.92	0.34	6.02	4.04	1.54	1.05		1.66	23.8			46.8	8.2	144	96.4	36.7	26.0		39.5
	TOTAL			1.92	0.34	6.02	4.04	1.54	1.05		1.66				46.8	8.2	144	96.4	36.7	26.0		39.5
D. leptopus	TOTAL							0.001			0.0001	190.0							0.1			0.0
E. lacustris	ADULT			0.01	0.01	0.02	0.01	0.01	0.01	0.05	0.01	262.9			2.5	1.4	4.9	2.0	1.9	2.2	14.2	3.2
	COPEPODID I-V	0.01					0.002		0.004	0.02	0.004	53.0	0.4					0.1		0.2	1.0	0.2
	TOTAL	0.01					0.002		0.004	0.02	0.004		0.4					0.1		0.2	1.0	0.2
CYCLOPOID NAUPLII	NI-NVI	6.10	5.63	9.37	13.1	15.7	9.64	19.1	18.8	11.1	12.1	1.3	8.0	7.4	12.3	17.2	20.6	12.7	25.0	24.6	14.6	15.8
CALANOID NAUPLII	NI-NVI	4.63	4.34	4.81	5.82	3.90	1.96	3.08	3.41	4.22	4.00	1.5	6.8	6.3	6.7	8.5	5.7	2.9	4.5	5.0	6.2	5.8
D. retrocurva	FEMALE	0.21		0.08	0.34	0.17	0.32	0.12		0.19	0.16	33.8	7.1		2.6	11.6	5.7	10.8	4.0		6.5	5.4
	FEMALE WITH EGG		0.01							0.10	0.01	42.2		0.4							4.1	0.5
	MALE											11.1										
	JUVENILE	1.05	0.32	0.15	0.43	0.17	0.24	0.41	0.39	0.86	0.45	6.9	7.2	2.2	1.1	2.9	1.2	1.6	2.8	2.7	5.9	3.1
	TOTAL	1.26	0.33	0.23	0.77	0.34	0.56	0.53	0.39	1.15	0.62		14.3	2.6	3.6	14.5	6.9	12.5	6.8	2.7	16.5	8.9
D. galeata m.	FEMALE			1.46	0.09	0.21	0.32	0.59	0.07	0.67	0.38	61.5			89.7	5.3	13.0	19.7	36.4	4.0	41.3	23.3
	FEMALE WITH EGG		0.01	0.54	0.09	0.21	0.16	0.06	0.13	0.29	0.16	78.8		0.8	41.3	6.6	16.3	12.3	4.5	10.1	22.1	12.7
	MALE						0.04				0.00	27.1						1.1				0.1
	JUVENILE	0.21	0.32	1.61	1.63	0.86	1.72	2.01	1.51	1.44	1.26	16.0	3.4	5.1	25.8	26.0	13.6	27.5	32.2	24.2	23.0	20.1
	TOTAL	0.21	0.33	3.61	1.80	1.27	2.24	2.66	1.71	2.40	1.80		3.4	5.9	157	37.9	42.9	60.6	73.1	38.3	86.5	56.1
C. lacustris	TOTAL	5.89	3.06	0.38	0.09	0.04	0.04		0.07	0.10	1.07	27.2	160	82.9	10.4	2.3	1.2	1.1		1.8	2.6	29.1
C. sphaericus	TOTAL	2.74	2.09	1.00	2.57	2.84	2.08	2.26	2.10	7.87	2.84	5.8	15.9	12.1	5.8	14.9	16.5	12.1	13.1	12.2	45.7	16.5
B. longirostris	AD+JUV	30.7	21.9	0.31	2.65	1.40	0.44	0.95	1.51	1.44	6.81	13.8	425	303	4.3	36.7	19.4	6.1	13.1	20.9	19.9	94.2
	FEMALE WITH EGG	1.05	0.16			0.04					0.14	17.3	18.2	2.6			0.7					2.4
	TOTAL	31.8	22.0	0.31	2.65	1.44	0.44	0.95	1.51	1.44	8.95		443	305	4.3	36.7	20.1	6.1	13.1	20.9	19.9	96.6
D. leuchtenbergianum	TOTAL	7.78	5.47	3.07	1.46	1.44	1.16	0.95	0.46	3.94	2.86	17.2	134	94.2	52.9	25.1	24.8	20.0	16.3	7.9	67.8	49.2
H. gibberum	TOTAL	1.26	0.64	0.38	0.61	0.04	0.28	0.06	0.13		0.37	132.4	167	85.1	50.8	68.0	5.6	37.1	7.8	17.4		48.8
L. kindtii	TOTAL	0.01				0.002		0.002	0.001	0.002	0.002	2943.8	38.7				4.7		6.5	2.4	7.1	6.6
S. crystallina	TOTAL		0.002								0.00	503.0		1.0								0.1
Chaoborus sp	TOTAL	0.01	0.01	0.005	0.002	0.004	0.002			0.01	0.004	7860.0	82.6	78.9	37.7	16.8	33.3	11.8			47.1	34.2
CYCLOPOIDA TOTAL	Ind.L⁻¹	11.2	11.8	15.4	16.8	22.6	14.6	23.1	25.1	14.1	17.2	μg.L⁻¹	58	84	71	52	72	55	56	70	62	63
	Ind.cm⁻²	4.7	6.5	17.8	17.3	46.8	32.1	34.6	33.8	13.0	23.0	μg.cm⁻²	24	46	82	53	149	120	84	94	48	78
CALANOIDA TOTAL	Ind.L⁻¹	8.2	7.1	8.5	9.0	11.1	6.9	6.6	6.2	6.5	7.8	μg.L⁻¹	63	109	107	94	179	121	98	87	71	103
	Ind.cm⁻²	3.4	3.9	9.8	9.3	23.0	15.1	9.9	8.4	6.0	9.9	μg.cm⁻²	27	60	123	97	371	265	146	117	65	141
CLADOCERA TOTAL	Ind.L⁻¹	50.9	34.0	9.0	9.8	7.4	6.8	7.4	6.4	16.9	16.5	μg.L⁻¹	977	589	286	199	123	149	137	103	246	312
	Ind.cm⁻²	21.4	18.7	10.3	10.1	15.4	15.0	11.1	8.8	15.5	14.0	μg.cm⁻²	410	324	327	205	254	329	205	140	228	269
TOTAL	Ind.L⁻¹	70.3	52.9	32.9	35.6	41.1	28.3	37.1	37.6	37.6	41.5	μg.L⁻¹	1180	861	501	362	407	336	290	260	416	513
	Ind.cm⁻²	29.5	29.1	37.9	36.7	85.1	62.2	55.6	50.8	34.6	46.8	μg.cm⁻²	496	474	576	373	843	740	436	351	383	519
TOTAL VOLUME SAMPLED												L	380	497	1040	931	1871	1989	1356	1220	832	1124
SETTLED VOL NETPLANK												ml	4.95	3.2	5.95	7.6	8.6	7.3	6.4	4.3	4.1	6
CALCULATED SAMPLE WET WEIGHT												mg	448	428	521	337	762	669	394	317	346	469
SETTLED VOLUME WET WEIGHT												mg	4950	3200	5950	7600	8600	7300	6400	4300	4100	5822
CALCULATED/SETTLED													0.09	0.13	0.09	0.04	0.09	0.09	0.06	0.07	0.08	0.08

Table 14. Abundance (individuals per litre) and biomass (µg wet weight per litre) of zooplankton species life stages at station 6 in Linge Lake between June 14 and September 12, 1989. Total abundance and biomass also presented per square centimetre.

		ABUNDANCE							BIOMASS					
	*SAMPLE NUMBER	35	42	50	99	107			35	42	50	99	107	
	MONTH	JUNE	JUNE	JULY	AUG	SEPT	SEASON		JUNE	JUNE	JULY	AUG	SEPT	SEASON
	DAY	14	27	11	15	12	MEAN	wet	14	27	11	15	12	MEAN
	DEPTH (m)	22.0	22.0	21.0	22.0	22.0	21.8	weight	22.0	22.0	21.0	22.0	22.0	21.8
SPECIES								µg.ind^{-1}						
E. speratus	TOTAL				0.002	0.002	0.001	32.4				0.1	0.1	0.03
C. scutifer	TOTAL	0.07					0.01	75.2	5.5					1.11
C. b. thomasi	FEMALE	1.14	0.96	1.10	0.22	0.37	0.76	22.3	25.4	21.3	24.4	4.9	8.2	16.84
	FEMALE WITH EGG	0.18	0.07	0.08	0.04		0.07	26.7	4.9	2.0	2.1	1.0		1.99
	MALE	0.92	0.52	0.71	0.33	0.33	0.56	14.8	13.6	7.6	10.4	4.9	4.9	8.28
	COPEPODID I-V	13.28	12.03	9.41	3.24	2.83	8.16	5.7	76.2	69.0	54.0	18.6	16.3	46.80
	TOTAL	15.53	13.58	11.29	3.83	3.53	9.55		120.1	99.9	90.9	29.4	29.3	73.91
A. vernalis	FEMALE							40.2						
	FEMALE WITH EGG							48.3						
	MALE							12.1						
	COPEPODID I-V	0.04			0.04	0.07	0.03	5.6	0.2			0.2	0.4	0.17
	TOTAL	0.04			0.04	0.07	0.03		0.2			0.2	0.4	0.17
M. edax	FEMALE	0.01	0.04	0.08	0.04	0.04	0.04	99.6	0.9	3.7	7.8	3.7	3.7	3.94
	FEMALE WITH EGG	0.01	0.04		0.04		0.02	119.5	1.1	4.4		4.4		1.98
	MALE	0.04		0.08	0.22		0.07	27.0	1.0		2.1	6.0		1.81
	COPEPODID I-V	0.04			0.07	0.04	0.03	18.0	0.7			1.3	0.7	0.53
	TOTAL	0.09	0.07	0.16	0.37	0.07	0.15		3.7	8.1	9.9	15.3	4.3	8.27
T. p. mexicanus	FEMALE							6.5						
	FEMALE WITH EGG							7.8						
	MALE	0.04					0.01	4.5	0.2					0.03
	COPEPODID I-V							2.1						
	TOTAL	0.04					0.01		0.2					0.03
D. minutus	FEMALE	0.11	0.26	0.16			0.10	30.5	3.4	7.8	4.8			3.20
	FEMALE WITH EGG	0.04	0.22	0.02	0.06	0.01	0.07	36.5	1.3	8.1	0.7	2.3	0.4	2.56
	MALE	0.18	0.11	0.08	0.26	0.15	0.16	27.2	5.0	3.0	2.1	7.0	4.0	4.23
	COPEPODID I-V	2.02	2.24	5.88	0.26	0.18	2.12	7.7	15.6	17.3	45.4	2.0	1.4	16.37
	TOTAL	2.36	2.83	6.13	0.58	0.34	2.45		25.3	36.3	53.1	11.3	5.8	26.35
D. oregonensis	FEMALE		0.04	0.01	0.04		0.02	68.9		2.5	0.7	2.5		1.15
	FEMALE WITH EGG			0.005	0.04	0.01	0.01	82.6			0.4	3.0	1.0	0.88
	MALE	0.04	0.07	0.002	0.002		0.02	51.2	1.9	3.8	0.1	0.1		1.18
	COPEPODID I-V	0.15		0.08	0.04	0.96	0.24	15.5	2.3		1.2	0.6	14.9	3.79
	TOTAL	0.18	0.11	0.10	0.11	0.97	0.29		4.2	6.3	2.4	6.3	15.8	6.99
D. sicilis	FEMALE			0.01			0.001	122.2			0.9			0.18
	FEMALE WITH EGG	0.01					0.002	146.7	1.7					0.34
	MALE	0.15	0.04	0.002			0.04	99.4	14.6	3.7	0.2			3.71
	COPEPODID I-V	7.62	11.52	11.68	10.78	6.07	9.53	23.8	181.7	274.7	278.6	257.2	144.8	227.39
	TOTAL	7.78	11.56	11.69	10.78	6.07	9.58		198.0	278.4	279.7	257.2	144.8	231.62
E. lacustris	ADULT	0.22	0.07	0.01	0.03	0.01	0.07	262.9	58.1	19.4	2.6	6.7	3.6	18.05
	COPEPODID I-V	0.29	0.07				0.07	53.0	15.6	3.9				3.90
	TOTAL	0.52	0.15	0.01	0.03	0.01	0.14		73.7	23.3	2.6	6.7	3.6	21.95
CYCLOPOID NAUPLII	NI-NVI	25.83	35.99	36.61	16.82	5.34	24.12	1.3	33.9	47.2	48.1	22.1	7.0	31.66
CALANOID NAUPLII	NI-NVI	0.44	1.91	4.86	1.77	0.26	1.85	1.5	0.6	2.8	7.1	2.6	0.4	2.70
D. retrocurva	FEMALE							33.8						
	FEMALE WITH EGG							42.2						
	MALE							11.1						
	JUVENILE				0.04		0.01	6.9				0.3		0.05
	TOTAL				0.04		0.01					0.3		0.05
D. galeata m.	FEMALE	0.07	0.18	0.08	0.07	0.22	0.13	61.5	4.5	11.3	4.8	4.5	13.6	7.75
	FEMALE WITH EGG				0.11		0.02	76.8				8.5		1.70
	MALE					0.07	0.01	27.1					2.0	0.40
	JUVENILE	0.52	0.52	0.39	0.15	0.52	0.42	16.0	8.2	8.2	6.3	2.4	8.2	6.67
	TOTAL	0.59	0.70	0.47	0.33	0.81	0.58		12.8	19.6	11.1	15.4	23.8	16.52
D. schoedleri	FEMALE							195.6						
	FEMALE WITH EGG							244.5						
	MALE		0.04				0.01	100.1		3.7				0.74
	JUVENILE							42.2						
	TOTAL		0.04				0.01			3.7				0.74
C. sphaericus	TOTAL	0.18	0.26	0.08	1.40	1.29	0.64	5.8	1.1	1.5	0.5	8.1	7.5	3.72
B. longirostris	JUVENILE	6.92	4.60	2.04		0.26	2.76	13.8	95.7	63.7	28.2		3.6	38.23
	FEMALE WITH EGG	0.04	0.04				0.01	17.3	0.6	0.6				0.25
	TOTAL	6.96	4.64	2.04		0.26	2.78		96.4	64.3	28.2		3.6	38.49
A. affinis	TOTAL	0.04			0.04		0.01	60.6	2.2			2.2		0.89
D. leuchtenbergianum	TOTAL		0.002	0.16	0.52	0.33	0.20	17.2		0.04	2.7	8.9	5.7	3.46
H. gibberum	TOTAL	2.43	2.43	1.10		0.11	1.21	132.4	321.5	321.5	145.3		14.6	160.58
L. kindtii	TOTAL	0.002					0.0005	2943.8	6.8					1.35
Chaoborus sp	TOTAL				0.01	0.0005	0.001	7850.0				54.2	3.6	11.56
CYCLOPOIDA TOTAL	ind.L^{-1}	41.60	49.64	48.06	21.05	9.02	33.88	µg.L^{-1}	163.6	155.2	148.9	67.1	41.2	115.2
	ind.cm^{-2}	91.53	109.22	100.92	46.31	19.84	73.85	µg.cm^{-1}	359.9	341.4	312.7	147.5	90.5	251.1
CALANOIDA TOTAL	ind.L^{-1}	11.27	16.58	22.79	13.26	7.65	14.31	µg.L^{-1}	301.8	347.0	344.9	283.9	170.5	289.6
	ind.cm^{-2}	24.80	36.43	47.86	29.18	16.84	31.19	µg.om^{-1}	664.0	763.4	724.3	624.6	375.0	631.4
CLADOCERA TOTAL	ind.L^{-1}	10.20	8.06	3.84	2.32	2.80	5.44	µg.L^{-1}	440.7	410.6	187.7	34.8	55.2	225.8
	ind.cm^{-2}	22.43	17.74	8.07	5.10	6.15	11.87	µg.cm^{-1}	969.6	903.3	394.3	76.6	121.4	492.3
TOTAL	ind.L^{-1}	63.07	74.26	74.69	36.64	19.47	53.63	µg.L^{-1}	906.1	912.7	681.5	440.0	270.4	642.2
	ind.cm^{-2}	138.76	163.38	156.86	80.61	42.83	116.91	µg.cm^{-1}	1993.4	2008.0	1431.2	968.0	594.9	1399.9
TOTAL VOLUME SAMPLED								L	1989	1989	1898	1989	1989	1971
SETTLED VOLUME NET PLANKTON								ml	22.00	52.50	33.00	8.80	8.10	24.88
CALCULATED SAMPLE WET WEIGHT								mg	1802.1	1815.3	1293.8	875.0	537.8	1265.5
SETTLED VOLUME WET WEIGHT								mg	22000	52500	33000	8800	8100	24880
CALCULATED/SETTLED									0.08	0.03	0.04	0.10	0.07	0.06

* Sample number is equivalent to Station number in Fee et al. (1989)

Table 15. Abundance (individuals per litre) and biomass (μg wet weight per litre) of zooplankton species life stages at 11 stations of Musclow Lake, August 26, 1988. Total abundance and biomass also presented per square centimetre lake surface area.

ABUNDANCE

SPECIES	STATION	1	2	3	4	5	6	7	8	9	10	11	LAKE AVG
	DEPTH (m)	17.0	10.0	29.5	20.0	32.1	41.0	24.6	7.0	32.2	17.0	18.3	22.6
E. speratus	TOTAL											0.003	0.0003
C. b. thomasi	FEMALE											0.003	0.0003
	FEMALE WITH EGG												
	MALE												
	COPEPODID I-V											0.05	0.004
	TOTAL											0.05	0.005
A. vernalis	FEMALE	0.10	0.09	0.03	0.09	0.05	0.02	0.04	0.13	0.03		0.14	0.07
	FEMALE WITH EGG	0.01	0.07	0.01		0.03	0.02	0.04	0.05	0.03	0.02		0.02
	MALE	0.10	0.04	0.06	0.18	0.05	0.11	0.14	0.25	0.05	0.16	0.10	0.11
	COPEPODID I-V	1.72	0.53	0.50	0.70	0.41	0.32	1.15	2.65	0.46	0.73	0.91	0.92
	TOTAL	1.94	0.74	0.60	0.97	0.54	0.48	1.37	3.08	0.57	0.90	1.15	1.12
M. edax	FEMALE							0.07	0.13	0.05		0.05	0.03
	FEMALE WITH EGG	0.003	0.02			0.03		0.005	0.02				0.01
	MALE	0.05	0.04	0.03	0.13	0.03	0.04	0.04		0.03			0.04
	COPEPODID I-V	0.47	0.27	0.21	0.22	0.41	0.11	0.29	0.88	0.33	0.10	0.19	0.32
	TOTAL	0.52	0.33	0.24	0.35	0.46	0.15	0.40	1.03	0.41	0.10	0.24	0.39
T.p.mexicanus	FEMALE						0.02						0.002
	FEMALE WITH EGG												
	MALE	0.10											0.01
	COPEPODID I-V	0.10	0.09		0.04				0.13			0.05	0.04
	TOTAL	0.21	0.09		0.04		0.02		0.13			0.05	0.05
D. minutus	FEMALE	0.42	0.44	0.12	0.22	0.08	0.13	0.32	0.13	0.22	0.16	0.19	0.22
	FEMALE WITH EGG	0.21	0.18	0.09	0.22	0.08	0.13	0.29	0.13	0.08	0.21	0.05	0.15
	MALE	0.21	0.36	0.21	0.57	0.05	0.26	0.58	1.26	0.08	0.42	0.19	0.38
	COPEPODID I-V	0.05		0.09	0.04		0.06	0.07	0.38		0.21	0.14	0.10
	TOTAL	0.88	0.98	0.50	1.06	0.22	0.58	1.26	1.90	0.38	0.99	0.58	0.85
D. sicilis	FEMALE											0.003	0.0003
	FEMALE WITH EGG												
	MALE												
	COPEPODID I-V	0.52		1.57	1.14	2.15	2.53	1.73		2.31	0.62	2.69	1.39
	TOTAL	0.52		1.57	1.14	2.15	2.53	1.73		2.31	0.62	2.69	1.39
L. macrurus	TOTAL	0.07		0.89	0.12	1.63	1.60	0.36		1.20	0.08	0.18	0.56
E. lacustris	ADULT	0.03	0.04	0.01	0.02	0.002	0.01	0.05	0.04	0.02	0.02	0.05	0.03
	COPEPODID I-V	0.10	0.06	0.03	0.04		0.04	0.07	0.13	0.05	0.10		0.06
	TOTAL	0.14	0.10	0.04	0.07	0.002	0.06	0.12	0.17	0.07	0.13	0.05	0.09
CYCLOPOID NAUPLII	NI-NVI	6.97	14.83	5.51	5.28	4.68	2.70	6.30	6.32	3.29	4.06	3.50	5.77
CALANOID NAUPLII	NI-NVI	0.31	0.44	0.15	0.26	0.16	0.17	0.40	1.01	0.19	0.42	0.29	0.35
D. galeata m.	FEMALE		0.09	0.03	0.18	0.11	0.09	0.18		0.08	0.10	0.05	0.08
	FEMALE WITH EGG		0.02	0.03	0.04	0.03	0.02	0.04		0.03			0.02
	MALE												
	JUVENILE	0.10	0.09	0.06	0.09	0.03	0.11	0.40	0.38	0.03	0.42	0.05	0.16
	TOTAL	0.10	0.19	0.12	0.31	0.16	0.22	0.61	0.38	0.14	0.52	0.10	0.26
D. schoedleri	FEMALE		0.09							0.03			0.01
	FEMALE WITH EGG												
	MALE												
	JUVENILE												
	TOTAL		0.09							0.03			0.01
C. sphaericus	TOTAL	0.21	0.27	0.12	0.35	0.16	0.06	0.25	0.76	0.08	0.16	0.19	0.24
B. longirostris	ADULT+JUVENILE	0.31	0.27		0.31	0.05	0.02	0.36	0.13	0.08	0.31	0.19	0.18
	FEMALE WITH EGG				0.04								0.004
	TOTAL	0.31	0.27		0.35	0.05	0.02	0.36	0.13	0.08	0.31	0.19	0.19
D. leuchtenbergianum	TOTAL	0.36	0.80	0.21	1.01	0.33	0.13	0.43	0.51	0.19	0.52	0.72	0.47
H. gibberum	TOTAL								0.003				0.0003
L. kindtii	TOTAL		0.001										0.0001
M. relicta	TOTAL			0.001			0.014						0.002
CYCLOPOIDA TOTAL	Ind.L-1	9.64	15.98	6.35	6.64	5.68	3.35	8.07	10.56	4.27	5.06	5.00	7.33
	Ind.cm-2	16.38	15.98	18.72	13.29	18.25	13.73	19.85	7.39	13.75	8.60	9.15	14.10
CALANOIDA TOTAL	Ind.L-1	1.92	1.52	3.15	2.66	4.16	4.94	3.87	3.07	4.15	2.24	3.78	3.22
	Ind.cm-2	3.27	1.52	9.29	5.31	13.36	20.24	9.51	2.15	13.38	3.81	6.92	8.07
CLADOCERA TOTAL	Ind.L-1	0.99	1.62	0.44	2.02	0.71	0.43	1.66	1.77	0.52	1.51	1.20	1.17
	Ind.cm-2	1.68	1.62	1.31	4.05	2.27	1.77	4.07	1.24	1.66	2.56	2.20	2.22
TOTAL	Ind.L-1	12.55	19.12	9.94	11.32	10.56	8.73	13.59	15.41	8.94	8.81	9.98	11.72
	Ind.cm-2	21.33	19.12	29.31	22.64	33.88	35.73	33.43	10.78	28.79	14.97	18.26	24.39

BIOMASS

SPECIES	STATION	wet weight μg.ind-1	1	2	3	4	5	6	7	8	9	10	11	LAKE AVG
	DEPTH (m)		17.0	10.0	29.5	20.0	32.1	41.0	24.6	7.0	32.2	17.0	18.3	22.6
E. speratus	TOTAL	32.4											0.10	0.01
C. b. thomasi	FEMALE	22.3											0.07	0.01
	FEMALE WITH EGG	26.7												
	MALE	14.8												
	COPEPODID I-V	5.7											0.28	0.03
	TOTAL												0.34	0.03
A. vernalis	FEMALE	40.2	4.19	3.57	1.19	3.54	2.19	0.87	1.45	5.09	1.09		5.79	2.63
	FEMALE WITH EGG	48.3	0.63	3.48	0.54		1.31	1.04	1.85	2.29	1.31	0.78		1.20
	MALE	12.1	1.26	0.54	0.71	2.13	0.66	1.30	1.74	3.05	0.66	1.88	1.16	1.37
	COPEPODID I-V	5.6	9.65	3.00	2.83	3.96	2.30	1.82	6.48	14.93	2.60	4.10	5.13	5.16
	TOTAL		15.72	10.59	5.27	9.63	6.45	5.04	11.52	25.36	5.67	6.76	12.08	10.37
M. edax	FEMALE	99.6							7.17	12.59	5.42		4.78	2.72
	FEMALE WITH EGG	119.5	0.39	1.99			3.25		0.54	2.83				0.82
	MALE	27.0	1.40	1.20	0.80	3.56	0.73	1.16	0.97		0.73			0.96
	COPEPODID I-V	18.0	8.43	4.80	3.73	3.96	7.35	1.95	5.19	15.94	5.88	1.87	3.46	5.69
	TOTAL		10.22	7.99	4.53	7.52	11.33	3.11	13.87	31.36	12.03	1.87	8.24	10.19
T.p.mexicanus	FEMALE	6.5						0.14						0.01
	FEMALE WITH EGG	7.7												
	MALE	4.5	0.46											0.04
	COPEPODID I-V	2.1	0.22	0.19		0.09				0.27			0.10	0.08
	TOTAL		0.68	0.19		0.09		0.14		0.27			0.10	0.13
D. minutus	FEMALE	30.5	12.67	13.52	3.61	6.70	2.48	3.95	9.87	3.85	6.63	4.75	5.85	6.71
	FEMALE WITH EGG	38.5	7.60	6.49	3.24	8.04	2.98	4.74	10.52	4.62	2.98	7.60	1.75	5.51
	MALE	27.2	5.65	9.65	5.63	15.55	1.48	7.05	15.56	34.38	2.22	11.31	5.22	10.34
	COPEPODID I-V	7.7	0.40		0.69	0.34		0.50	0.56	2.93		1.61	1.11	0.74
	TOTAL		26.32	29.67	13.17	30.63	6.95	16.23	36.60	45.75	11.83	25.27	13.93	23.30
D. sicilis	FEMALE	122.2											0.37	0.03
	FEMALE WITH EGG	146.7												
	MALE	99.4												
	COPEPODID I-V	23.8	12.40		37.42	27.28	51.25	60.27	41.21		55.14	14.88	64.11	33.09
	TOTAL		12.40		37.42	27.28	51.25	60.27	41.21		55.14	14.88	64.47	33.12
L. macrurus	TOTAL	280.6	20.06		249.1	34.72	457.9	448.4	101.0		335.8	23.71	51.34	156.6
E. lacustris	ADULT	262.9	8.54	10.21	2.92	6.51	0.45	3.19	13.01	10.38	5.36	5.98	11.83	7.13
	COPEPODID I-V	53.0	5.51	3.24	1.57	2.33		2.29	3.82	6.70	2.68	5.51		3.08
	TOTAL		14.06	13.45	4.49	8.84	0.45	5.49	16.83	17.09	8.25	11.50	11.83	10.21
CYCLOPOID NAUPLII	NI-NVI	1.3	9.15	19.47	7.23	6.93	6.14	3.54	8.27	8.30	4.32	5.32	4.60	7.57
CALANOID NAUPLII	NI-NVI	1.5	0.46	0.65	0.22	0.39	0.24	0.25	0.58	1.48	0.28	0.61	0.42	0.51
D. galeata m.	FEMALE	61.5		5.46	1.82	10.82	6.69	5.31	11.06		5.01	6.39	2.95	5.05
	FEMALE WITH EGG	76.8		1.28	2.27	3.38	2.09	1.66	2.77		2.09			1.41
	MALE	27.1												
	JUVENILE	16.0	1.66	1.42	0.95	1.41	0.44	1.73	6.34	6.07	0.44	6.66	0.77	2.53
	TOTAL		1.66	8.16	5.04	15.60	9.21	8.70	20.17	6.07	7.54	13.05	3.72	8.99
D. schoedleri	FEMALE	195.6		17.37							5.32			2.06
	FEMALE WITH EGG	244.5												
	MALE	100.1												
	JUVENILE	42.2												
	TOTAL			17.37							5.32			2.06
C. sphaericus	TOTAL	5.8	1.21	1.55	0.69	2.04	0.95	0.38	1.46	4.40	0.47	0.91	1.11	1.38
B. longirostris	ADULT+JUVENILE	13.8	4.32	3.69		4.26	0.75	0.30	4.98	1.75	1.13	4.32	2.66	2.56
	FEMALE WITH EGG	17.3				0.76								0.07
	TOTAL		4.32	3.69		5.02	0.75	0.30	4.98	1.75	1.13	4.32	2.66	2.63
D. leuchtenbergianum	TOTAL	17.2	6.27	13.77	3.57	17.43	5.62	2.23	7.44	8.71	3.28	8.96	12.40	8.15
H. gibberum	TOTAL	132.4								0.42				0.04
L. kindtii	TOTAL	2944		3.27										0.30
M. relicta	TOTAL	26500			19.61			379.2						38.26
CYCLOPOIDA TOTAL		μg.L-1	36	38	17	24	24	12	34	65	22	14	25	28
		μg.cm-2	61	38	50	48	77	49	83	46	71	24	47	54
CALANOIDA TOTAL		μg.L-1	73	44	304	102	517	531	196	64	411	76	142	224
		μg.cm-2	125	44	898	204	1659	2176	483	45	1324	129	260	668
CLADOCERA TOTAL		μg.L-1	13	48	9	40	17	12	34	21	18	27	20	24
		μg.cm-2	23	48	27	80	53	48	84	15	57	46	38	47
TOTAL		μg.L-1	123	130	350	166	557	933	264	151	451	117	187	312
		μg.cm-2	208	130	1034	332	1789	3827	649	106	1452	199	343	915
TOTAL VOLUME SAMPLED		L	1537	904	2667	1808	2902	3706	2224	633	2911	1537	1654	2044
SETTLED VOLUME NET PLANKTON		ml	2.8	2.1	6.6	3.8	8.7		7.35	1.6	11.6	4.5	4.5	5.35
CALCULATED SAMPLE WET WEIGHT		mg	188	117	934	300	1617	3459	587	96	1313	180	310	637
SETTLED VOLUME WET WEIGHT		mg	2800	2100	6600	3800	8700		7350	1600	11600	4500	4500	4868
CALCULATED/SETTLED			0.07	0.06	0.14	0.08	0.19		0.08	0.06	0.11	0.04	0.07	0.13

Table 16. Abundance (individuals per litre) and biomass (µg wet weight per litre) of zooplankton species life stages at station 6 in Musclow Lake sampled between June 14 and October 11, 1989. Total abundance and biomass also presented per square centimetre of lake surface area.

		ABUNDANCE								BIOMASS						
	*SAMPLE NUMBER	38	46	47	96	104	112			38	46	47	96	104	112	
	MONTH	JUNE	JUNE	JULY	AUG	SEPT	OCT	SEASON		JUNE	JUNE	JULY	AUG	SEPT	OCT	SEASON
	DAY	14	27	11	15	12	11	MEAN	wet	14	27	11	15	12	11	MEAN
	DEPTH (m)	35.0	35.0	35.0	35.0	35.0	40.0	35.8	weight	35.0	35.0	35.0	35.0	35.0	40.0	35.8
SPECIES									µg.ind−1							
C. varicans r.	TOTAL		0.05					0.01	5.7		0.27					0.04
C. b. thomasi	FEMALE						0.12	0.02	22.3						2.78	0.46
	FEMALE WITH EGG	0.0003					0.001	0.0003	26.7	0.01					0.03	0.01
	MALE						0.64	0.11	14.8						9.53	1.59
	COPEPODID I-V		0.09	0.02			1.60	0.29	5.7		0.53	0.13			9.19	1.64
	TOTAL	0.0003	0.09	0.02			2.37	0.41		0.01	0.53	0.13			21.52	3.70
A. vernalis	FEMALE			0.26				0.04	40.2			10.27				1.71
	FEMALE WITH EGG		0.003	0.02				0.004	48.3		0.14	1.12				0.21
	MALE		0.05	0.79		0.02		0.14	12.1		0.56	9.53		0.28		1.73
	COPEPODID I-V	0.01	0.42	1.00	0.56	2.97	0.12	0.85	5.6	0.04	2.35	5.61	3.13	16.71	0.70	4.76
	TOTAL	0.01	0.47	2.06	0.56	2.99	0.12	1.04		0.04	3.03	26.34	3.13	16.99	0.70	8.37
M. edax	FEMALE								99.6							
	FEMALE WITH EGG	0.001	0.001	0.02	0.001			0.004	119.5	0.07	0.07	2.77	0.17			0.51
	MALE			0.05		0.02		0.01	27.0			1.25		0.63		0.31
	COPEPODID I-V			0.14	0.26	0.16		0.09	18.0			2.51	4.60	2.93		1.67
	TOTAL	0.001	0.001	0.21	0.26	0.19		0.11		0.07	0.07	6.53	4.77	3.55		2.50
T. p. mexicanus	FEMALE								6.5							
	FEMALE WITH EGG								7.8							
	MALE								4.5							
	COPEPODID I-V					0.02		0.004	2.1					0.05		0.01
	TOTAL					0.02		0.004						0.05		0.01
D. minutus	FEMALE			0.19	0.07	0.07	0.19	0.09	30.5			5.65	2.12	2.12	5.70	2.60
	FEMALE WITH EGG			0.09	0.09	0.09	0.33	0.10	36.5			3.39	3.39	3.39	12.16	3.72
	MALE			0.14	0.16	0.16	0.46	0.15	27.2			3.78	4.41	4.41	12.44	4.17
	COPEPODID I-V	0.84	0.65	1.18	0.32	0.19		0.53	7.7	6.45	5.02	9.14	2.51	1.43		4.09
	TOTAL	0.84	0.65	1.60	0.65	0.51	0.98	0.87		6.45	5.02	21.97	12.43	11.36	30.30	14.59
D. sicilis	FEMALE	0.01	0.05		0.001			0.01	122.2	0.77	5.67		0.18			1.10
	FEMALE WITH EGG	0.01	0.01					0.002	146.7	0.92	1.28					0.37
	MALE								99.4							
	COPEPODID I-V	1.16	1.39	2.16	1.30	0.58		1.10	23.8	27.67	33.20	51.46	30.99	13.83		26.19
	TOTAL	1.17	1.45	2.16	1.30	0.58		1.11		29.35	40.15	51.46	31.16	13.83		27.66
L. macrurus	TOTAL	2.18	1.30	3.56	1.62	1.37	1.73	1.98	280.6	611.84	364.50	995.87	456.63	384.03	484.36	549.37
E. lacustris	ADULT	0.01	0.03	0.07	0.02	0.09		0.04	262.9	3.29	9.15	18.30	5.72	24.40		10.14
	COPEPODID I-V		0.05	0.21	0.42	0.09		0.13	53.0		2.46	11.07	22.14	4.92		6.77
	TOTAL	0.01	0.08	0.28	0.44	0.19		0.17		3.29	11.61	29.37	27.86	29.32		16.91
CYCLOPOID NAUPLII	NI-NVI	1.35	0.65	6.29	5.94	0.39	0.67	2.55	1.3	1.77	0.85	8.25	7.80	0.52	0.87	3.34
CALANOID NAUPLII	NI-NVI	0.19	1.30	0.90	0.26			0.44	1.5	0.27	1.90	1.32	0.37			0.64
D. retrocurva	FEMALE					0.02		0.004	33.8					0.78		0.13
	FEMALE WITH EGG								42.2							
	MALE					0.02		0.004	11.1					0.26		0.04
	JUVENILE					0.09		0.02	6.9					0.64		0.11
	TOTAL					0.14		0.02						1.68		0.28
D. galeata m.	FEMALE	0.05		0.26	0.07	0.05	0.02	0.07	61.5	2.85		15.68	4.28	2.85	1.28	4.49
	FEMALE WITH EGG	0.01	0.05	0.19	0.12		0.04	0.07	76.8	0.48	3.56	14.26	8.91		3.20	5.07
	MALE					0.02	0.37	0.07	27.1					0.63	10.14	1.80
	JUVENILE		0.09	0.46	0.09	0.23	0.02	0.15	16.0		1.49	7.43	1.49	3.71	0.33	2.41
	TOTAL	0.05	0.14	0.90	0.28	0.30	0.46	0.36		3.33	5.05	37.37	14.67	7.19	14.95	13.76
D. schoedleri	FEMALE								195.6							
	FEMALE WITH EGG								244.5							
	MALE		0.003					0.0005	100.1		0.29					0.05
	JUVENILE	0.001						0.0001	42.2	0.04						0.01
	TOTAL	0.001	0.003					0.001		0.04	0.29					0.05
C. sphaericus	TOTAL	0.05	0.51	1.04	0.19	0.39		0.36	5.8	0.27	2.96	6.06	1.08	2.29		2.11
B. longirostris	AD+JUV	0.23	0.46	2.81	0.21	0.23		0.66	13.8	3.21	6.42	38.85	2.89	3.21		9.10
	FEMALE WITH EGG			0.07		0.05		0.02	17.3			1.20		0.80		0.33
	TOTAL	0.23	0.46	2.88	0.21	0.28		0.68		3.21	6.42	40.05	2.89	4.01		9.43
E. longispina	TOTAL	0.01						0.001	28.5	0.18						0.03
D. leuchtenbergianum	TOTAL				0.09	0.09	0.02	0.03	17.2				1.60	1.60	0.36	0.59
H. gibberum	TOTAL	0.74	0.56					0.22	132.4	98.27	73.71					28.66
L. kindtii	TOTAL		0.001	0.001				0.0003	2943.8		1.71	4.27				1.00
M. relicta	TOTAL	0.0003	0.003	0.002	0.0003			0.001	26436.5	7.67	76.67	61.33	7.67			25.56
G. lacustris	TOTAL		0.001					0.0001	47014.1		27.27					4.64
CYCLOPOIDA TOTAL	ind.L−1	1.35	1.26	8.58	6.75	3.60	3.16	4.12	µg.L−1	1.9	4.8	41.4	15.7	21.1	23.1	18.0
	ind.cm−2	4.73	4.40	30.04	23.63	12.59	12.65	14.75	µg.cm−2	6.6	16.7	145.1	54.9	73.9	92.4	64.9
CALANOIDA TOTAL	ind.L−1	4.39	4.78	8.49	4.27	2.64	2.70	4.56	µg.L−1	651.2	423.2	1100.0	527.5	438.5	514.7	609.2
	ind.cm−2	15.35	16.72	29.72	14.94	9.26	10.82	16.29	µg.cm−2	2279.2	1481.1	3850.0	1846.1	1534.9	2058.6	2175.0
CLADOCERA TOTAL	ind.L−1	1.08	1.67	4.83	0.77	1.21	0.48	1.67	µg.L−1	106.3	90.1	87.7	20.2	16.8	15.3	55.9
	ind.cm−2	3.78	5.86	16.89	2.68	4.22	1.91	5.99	µg.cm−2	368.56	315.48	307.12	70.84	58.70	61.23	197.0
TOTAL	ind.L−1	6.82	7.71	21.90	11.79	7.45	6.35	10.34	µg.L−1	766.1	622.0	1290.3	571.1	476.4	553.1	713.154
	ind.cm−2	23.87	26.98	76.67	41.26	26.07	25.38	37.04	µg.cm−2	2681.4	2177.0	4516.2	1998.7	1667.5	2212.2	2555.5
								TOTAL VOLUME SAMPLED	L	3164.0	3164.0	3164.0	3164.0	3164.0	3616.0	3239.3
								SETTLED VOLUME NET PLANKTON	ml	28.35	16.00	26.80	18.70	9.50	2.90	17.04
								CALCULATED SAMPLE WET WEIGHT	mg	2423.8	1968.0	4082.6	1806.9	1507.4	1999.9	2298.1
								SETTLED VOLUME WET WEIGHT	mg	28350	16000	26800	18700	9500	2900	17042
								CALCULATED/SETTLED		0.09	0.12	0.15	0.10	0.16	0.69	0.218

* Sample number is equivalent to Station number in Fee et al. (1989)

Table 17. Abundance (individuals per litre) and biomass (μg wet weight per litre) of zooplankton species life stages at 10 stations of Sydney Lake, August 28, 1988. Total abundance and biomass also presented per square centimetre of lake surface area.

ABUNDANCE

SPECIES	STATION	1	2	3	4	5	6	7	8	9	10	LAKE AVG
	DEPTH (m)	13.5	9.5	53.0	53.0	33.0	37.5	46.0	39.0	23.0	30.0	33.8
C. b. thomasi	FEMALE	0.004	0.37	0.25	0.07	0.03	0.07	0.10	0.09	0.23	0.03	0.12
	FEMALE WITH EGG		0.01	0.002	0.001			0.02	0.04	0.01	0.06	0.01
	MALE	0.07	0.84	0.54	0.10	0.05	0.28	0.08	0.38	0.15	0.18	0.27
	COPEPODID I-V	0.46	1.31	1.39	1.01	1.06	2.18	1.08	2.20	1.54	1.89	1.41
	TOTAL	0.53	2.53	2.19	1.18	1.14	2.53	1.27	2.71	1.93	2.16	1.82
A. vernalis	FEMALE				0.02	0.05		0.02		0.04	0.03	0.02
	FEMALE WITH EGG	0.04	0.02	0.01	0.00		0.02	0.02	0.02	0.01	0.03	0.02
	MALE	0.07	0.28	0.08	0.03		0.02	0.08		0.15	0.09	0.08
	COPEPODID I-V	0.13	0.94	0.34	0.18	0.41	0.32	0.15	0.38	0.38	0.38	0.36
	TOTAL	0.23	1.24	0.43	0.24	0.46	0.37	0.27	0.40	0.58	0.50	0.47
M. edax	FEMALE	0.02	0.09	0.03			0.02					0.02
	FEMALE WITH EGG	0.004	0.01	0.02	0.002		0.001					0.004
	MALE		0.28	0.02				0.02	0.04	0.04		0.04
	COPEPODID I-V	0.13	0.58	0.10	0.17	0.03	0.14	0.08	0.25	0.27	0.09	0.16
	TOTAL	0.16	0.95	0.17	0.17	0.03	0.16	0.10	0.29	0.31	0.09	0.24
T. p. mexicanus	FEMALE		0.09	0.03		0.03			0.02			0.02
	FEMALE WITH EGG					0.03					0.03	0.01
	MALE			0.05					0.02			0.01
	COPEPODID I-V		0.09				0.02					0.01
	TOTAL		0.19	0.08		0.06	0.02		0.04		0.03	0.04
D. minutus	FEMALE	0.26	0.66	0.10	0.02	0.11	0.12	0.15	0.09	0.15	0.27	0.19
	FEMALE WITH EGG	0.01	0.75			0.03	0.14	0.04	0.07	0.19		0.12
	MALE	0.13	0.94	0.18	0.07	0.19	0.09	0.02	0.04	0.58	0.24	0.25
	COPEPODID I-V	0.26	0.19	0.10		0.05		0.02	0.04	0.04	0.12	0.08
	TOTAL	0.67	2.53	0.39	0.08	0.38	0.35	0.23	0.25	0.96	0.62	0.65
D. oregonensis	FEMALE	0.13	0.47	0.03		0.08	0.07	0.06	0.16	0.04		0.10
	FEMALE WITH EGG	0.26	0.47			0.03	0.02	0.02	0.09	0.04		0.09
	MALE	0.01	0.47	0.05	0.05	0.08	0.12	0.02	0.02	0.08	0.06	0.10
	COPEPODID I-V	1.18	2.90	0.52	0.42	1.03	0.70	0.63	0.76	1.31	1.42	1.09
	TOTAL	1.58	4.31	0.60	0.47	1.22	0.90	0.73	1.03	1.46	1.48	1.38
D. sicilis	FEMALE											
	FEMALE WITH EGG											
	MALE											
	COPEPODID I-V	0.13	0.09	1.48	1.76	0.98	1.44	2.75	1.95	0.27	0.77	1.16
	TOTAL	0.13	0.09	1.48	1.78	0.98	1.44	2.75	1.96	0.27	0.77	1.16
D. leptopus	TOTAL				0.02							0.002
L. macrurus	TOTAL			0.69	0.18	0.13	0.17	0.58	0.31	0.02	0.02	0.21
S. calanoides	TOTAL			0.05	0.02	0.00	0.003	0.04	0.05		0.001	0.02
E. lacustris	ADULT	0.005	0.04	0.01	0.0002	0.003	0.004	0.000	0.01	0.02	0.01	0.01
	COPEPODID I-V	0.01	0.47	0.02	0.02	0.08	0.14	0.08	0.04	0.12	0.12	0.11
	TOTAL	0.01	0.50	0.02	0.02	0.09	0.14	0.08	0.05	0.13	0.12	0.12
CYCLOPOID NAUPLII	NI-NVI	2.36	9.83	2.22	2.54	4.30	3.97	2.15	3.83	4.07	4.80	4.01
CALANOID NAUPLII	NI-NVI	5.84	3.58	1.36	1.38	1.09	1.48	1.29	1.93	1.80	2.52	2.22
D. retrocurva	FEMALE	0.07	0.94	0.02	0.02	0.03	0.09	0.02	0.07	0.04		0.13
	FEMALE WITH EGG				0.00					0.04	0.03	0.01
	MALE											
	JUVENILE		1.40	0.02	0.05	0.08	0.14	0.13	0.11	0.15	0.15	0.22
	TOTAL	0.07	2.34	0.03	0.07	0.11	0.23	0.15	0.18	0.23	0.18	0.36
D. galeata m.	FEMALE	0.39	0.09	0.05	0.07	0.03	0.16	0.10	0.11	0.08	0.06	0.11
	FEMALE WITH EGG	0.07		0.01	0.02	0.03	0.02	0.06		0.08	0.03	0.03
	MALE											
	JUVENILE	1.05	0.37	0.13	0.07	0.60	0.35	0.23	0.13	0.42	0.30	0.37
	TOTAL	1.51	0.47	0.19	0.15	0.65	0.53	0.38	0.25	0.58	0.38	0.51
D. schoedleri	FEMALE											
	FEMALE WITH EGG											
	MALE											
	JUVENILE	0.07										0.01
	TOTAL	0.07										0.01
C. lacustris	TOTAL							0.02				0.00
C. sphaericus	TOTAL	1.77	5.24	1.90	0.62	1.14	0.90	0.96	1.50	2.19	2.31	1.85
B. longirostris	AD+JUV	0.52	1.40	0.29	0.15	0.57	0.30	0.46	0.47	0.15	0.80	0.51
	FEMALE WITH EGG		0.09	0.02			0.02		0.02			0.02
	TOTAL	0.52	1.50	0.30	0.15	0.57	0.32	0.46	0.49	0.15	0.80	0.53
D. leuchtenbergianum	TOTAL	3.80	11.70	1.46	1.31	2.37	1.90	1.19	1.93	3.23	2.55	3.14
H. gibberum	TOTAL	0.13	1.12	0.02	0.05	0.27	0.05	0.25	0.11	0.46	0.33	0.28
L. kindti	TOTAL		0.002				0.001	0.002	0.001		0.002	0.001
P. pediculus	TOTAL										0.002	0.0002
S. crystallina	TOTAL							0.02				0.002
M. relicta	TOTAL			0.0002	0.0006			0.002	0.001		0.0004	0.0003
Chaoborus sp	TOTAL	0.029		0.017					0.001			0.005
CYCLOPOIDA TOTAL	Ind.L−1	3.28	14.74	5.08	4.12	5.98	7.05	3.78	7.28	6.89	7.58	6.58
	Ind.cm−2	4.43	14.00	26.93	21.84	19.75	26.45	17.40	28.39	15.85	22.73	19.78
CALANOIDA TOTAL	Ind.L−1	8.23	10.99	4.60	3.93	3.89	4.49	5.68	5.56	4.64	5.54	5.75
	Ind.cm−2	11.12	10.44	24.36	20.85	12.82	16.84	26.14	21.67	10.66	16.61	17.15
CLADOCERA TOTAL	Ind.L−1	7.87	22.37	3.90	2.35	5.11	3.96	3.44	4.46	6.84	6.55	6.68
	Ind.cm−2	10.63	21.25	20.89	12.47	16.87	14.80	15.82	17.39	15.72	19.64	16.53
TOTAL	Ind.L−1	19.41	48.10	13.60	10.41	14.98	15.49	12.91	17.30	18.37	19.88	19.02
	Ind.cm−2	26.21	45.69	72.06	55.17	49.45	58.09	59.37	67.48	42.26	58.98	53.47

BIOMASS

SPECIES	STATION	wet weight µg.ind−1	1	2	3	4	5	6	7	8	9	10	LAKE AVG
	DEPTH (m)		13.5	9.5	53.0	53.0	33.0	37.5	46.0	39.0	23.0	30.0	33.8
C. b. thomasi	FEMALE	22.3	0.09	8.33	5.61	1.50	0.61	1.55	2.14	1.99	5.13	0.56	2.76
	FEMALE WITH EGG	26.7		0.16	0.06	0.03			0.51	1.20	0.32	1.58	0.39
	MALE	14.8	0.97	12.44	7.94	1.49	0.80	4.11	1.13	5.63	2.27	2.62	3.94
	COPEPODID I-V	5.7	2.63	7.52	8.00	5.78	6.08	12.51	6.17	12.59	8.81	10.87	8.10
	TOTAL		3.69	28.45	21.60	8.79	7.49	18.17	9.95	21.41	16.53	15.73	15.18
A. vernalis	FEMALE	40.2				0.68	2.19		0.77		1.55	1.19	0.64
	FEMALE WITH EGG	48.3	1.78	1.13	0.25	0.10		1.12	0.93	1.08	0.35	1.43	0.82
	MALE	12.1	0.79	3.39	1.01	0.41		0.28	0.93		1.86	1.07	0.97
	COPEPODID I-V	5.6	0.74	5.27	1.89	1.04	2.30	1.83	0.86	2.14	2.18	2.00	2.02
	TOTAL		3.31	9.79	3.16	2.22	4.48	3.23	3.49	3.22	5.91	5.69	4.45
M. edax	FEMALE	99.6	2.04	9.32	3.35			2.31					1.70
	FEMALE WITH EGG	119.5	0.49	1.40	2.01	0.25		0.17					0.43
	MALE	27.0		7.57	0.45				0.52	1.21	1.04		1.08
	COPEPODID I-V	18.0	2.36	10.12	1.82	3.03	0.49	2.51	1.38	4.44	4.84	1.60	3.26
	TOTAL		4.90	28.41	7.62	3.28	0.49	4.99	1.90	5.65	5.88	1.60	6.47
T. p. mexicanus	FEMALE	6.5		0.60	0.22		0.18			0.14			0.11
	FEMALE WITH EGG	7.7					0.21					0.23	0.04
	MALE	4.5			0.23					0.10			0.03
	COPEPODID I-V	2.1		0.20				0.05					0.02
	TOTAL			0.80	0.44		0.39	0.05		0.24		0.23	0.22
D. minutus	FEMALE	30.5	7.99	19.96	3.07	0.51	3.31	3.53	4.68	2.73	4.68	8.11	5.86
	FEMALE WITH EGG	36.5	0.45	27.36			0.99	5.09	1.40	2.46	7.02		4.48
	MALE	27.2	3.57	25.44	5.02	1.83	5.18	2.52	0.52	1.22	15.66	6.44	6.74
	COPEPODID I-V	7.7	2.03	1.45	0.78		0.42		0.15	0.35	0.30	0.91	0.64
	TOTAL		14.03	74.20	8.87	2.34	9.90	11.14	6.75	6.75	27.65	15.46	17.71
D. oregonensis	FEMALE	68.9	9.03	32.23	2.31		5.62	4.79	3.97	10.80	2.64		7.14
	FEMALE WITH EGG	82.6	21.68	38.67			2.26	1.92	1.59	7.40	3.17		7.67
	MALE	51.2	0.42	23.96	2.58	2.68	4.18	5.94	0.98	1.15	3.93	3.03	4.87
	COPEPODID I-V	15.5	18.33	45.05	8.09	6.52	16.05	10.81	9.84	11.83	20.27	22.06	16.88
	TOTAL		49.47	139.91	12.98	9.10	28.09	23.45	16.37	31.17	30.02	25.09	36.57
D. sicilis	FEMALE	122.2											
	FEMALE WITH EGG	146.7											
	MALE	99.4											
	COPEPODID I-V	23.8	3.13	2.23	35.26	42.07	23.36	34.31	65.48	46.48	6.41	18.36	27.71
	TOTAL		3.13	2.23	36.26	42.07	23.35	34.31	65.48	46.48	6.41	18.36	27.71
D. leptopus	TOTAL	190.0				3.19							0.32
L. macrurus	TOTAL	280.6			193.25	51.85	35.77	47.19	161.60	85.63	4.71	6.75	58.67
S. calanoides	TOTAL	1489			79.71	29.70	2.53	4.32	57.16	66.77		1.65	24.38
E. lacustris	ADULT	262.9	1.29	9.23	1.66	0.06	0.89	1.14	0.06	1.84	5.05	1.36	2.26
	COPEPODID I-V	53.0	0.43	24.62	0.89	0.89	4.33	7.38	4.07	2.38	6.11	6.28	5.76
	TOTAL		1.73	34.04	2.55	0.95	5.22	8.53	4.14	4.22	11.16	7.64	8.02
CYCLOPOID NAUPLII	NI-NVI	1.3	3.10	12.90	2.91	3.33	5.64	5.21	2.82	5.03	5.34	6.29	5.26
CALANOID NAUPLII	NI-NVI	1.5	8.54	5.20	1.99	2.01	1.59	2.17	1.88	2.82	2.64	3.68	3.25
D. retrocurva	FEMALE	33.8	2.22	31.61	0.57	0.57	0.92	3.13	0.65	2.27	1.30		4.32
	FEMALE WITH EGG	42.2				0.04					1.62	1.25	0.29
	MALE	11.1											
	JUVENILE	6.9		9.63	0.12	0.35	0.56	0.95	0.92	0.77	1.05	1.02	1.54
	TOTAL		2.22	41.24	0.68	0.96	1.48	4.09	1.57	3.04	3.97	2.26	6.15
D. galeata m.	FEMALE	61.5	24.19	5.75	3.10	4.13	1.67	9.98	5.90	6.88	4.72	3.64	7.00
	FEMALE WITH EGG	76.8	5.04		0.40	1.29	2.09	1.78	4.42		5.90	2.27	2.32
	MALE	27.1											
	JUVENILE	16.0	16.80	5.99	2.15	1.06	9.58	5.57	3.69	2.15	6.76	4.74	5.86
	TOTAL		46.03	11.74	5.65	6.50	13.34	17.33	14.01	9.03	17.38	10.65	15.17
D. schoedleri	FEMALE	195.6											
	FEMALE WITH EGG	244.5											
	MALE	100.1											
	JUVENILE	42.2	2.77										0.28
	TOTAL		2.77										0.28
C. lacustris	TOTAL	27.2							0.52				0.05
C. sphaericus	TOTAL	5.8	10.28	30.43	11.02	3.61	6.63	5.25	5.57	8.71	12.71	13.40	10.76
B. longirostris	AD+JUV	13.8	7.26	19.43	3.95	2.09	7.90	4.17	6.38	6.51	2.13	11.06	7.09
	FEMALE WITH EGG	17.3		1.62	0.29			0.40		0.39			0.27
	TOTAL		7.26	21.05	4.24	2.09	7.90	4.57	6.38	6.90	2.13	11.06	7.36
D. leuchtenbergianum	TOTAL	17.2	65.55	201.6	25.18	22.58	40.77	32.77	20.51	33.19	55.57	43.85	54.15
H. gibberum	TOTAL	132.4	17.37	148.7	2.22	6.67	36.01	6.14	33.04	14.83	61.00	43.10	36.91
L. kindti	TOTAL	2944		6.89				4.27	7.07	4.12		5.45	2.78
P. pediculus	TOTAL	228.0										0.42	0.04
S. crystallina	TOTAL	503.0							9.66				0.97
M. relicta	TOTAL	26500			5.57	16.70			44.52	14.84		9.81	9.14
Chaoborus sp	TOTAL	7850	225.3		131.88					10.99			36.82
CYCLOPOIDA TOTAL		µg.L−1	15.0	80.3	35.7	17.6	18.5	31.6	18.2	35.5	33.7	29.5	31.6
		µg.cm−2	20.3	76.3	189.4	93.4	61.0	118.7	83.6	138.6	77.4	88.6	94.7
CALANOIDA TOTAL		µg.L−1	76.9	255.6	334.6	141.2	106.5	131.1	313.4	245.8	82.6	78.6	176.6
		µg.cm−2	103.8	242.8	1773.4	748.4	351.3	491.6	1441.6	958.7	189.9	235.9	653.8
CLADOCERA TOTAL		µg.L−1	151.5	461.6	49.0	42.4	106.1	74.4	98.3	79.8	152.8	130.2	134.6
		µg.cm−2	204.5	438.5	259.7	224.7	350.2	279.1	452.3	311.3	351.3	390.8	326.2
TOTAL		µg.L−1	469	798	557	218	231	237	474	387	269	248	388.8
		µg.cm−2	633	758	2951	1155	763	889	2182	1509	619	745	1220.3
TOTAL VOLUME SAMPLED		L	1220.4	658.8	4791.2	4791.2	2983.2	3390	4158.4	3525.6	2079.2	2712	3051.0
SETTLED VOLUME NET PLANKTON		ml	10.6	7.1	13.9	9.1	11	11.8	13.4	8.9	11.3	11.1	10.8
CALCULATED SAMPLE WET WEIGHT		mg	571.96	684.91	2687.7	1044.1	689.36	804.05	1972.7	1364.4	559.28	673.05	1103.2
SETTLED VOLUME WET WEIGHT		mg	10600	7100	13900	9100	11000	11800	13400	8900	11300	11100	10820
CALCULATED/SETTLED			0.05	0.10	0.19	0.11	0.06	0.07	0.15	0.15	0.05	0.06	0.10

Table 18. Abundance (individuals per litre) and biomass (μg wet weight per litre) of zooplankton species life stages at station 3 in Sydney Lake between June 14 and September 12, 1989. Total abundance and biomass also presented per square centimetre of lake surface area.

		ABUNDANCE							BIOMASS					
	*SAMPLE NUMBER	32	39	63	102	110			32	39	63	102	110	
	MONTH	JUNE	JUNE	JULY	AUG	SEPT	SEASON		JUNE	JUNE	JULY	AUG	SEPT	SEASON
	DAY	14	27	11	15	12	MEAN	wet	14	27	11	15	12	MEAN
	DEPTH (m)	49.0	40.0	40.0	50.0	50.0	45.8	weight	49.0	40.0	40.0	50.0	50.0	45.8
SPECIES								μg.ind^{-1}						
C. b. thomasi	FEMALE	0.13	0.08	0.20		0.06	0.10	22.3	2.99	1.85	4.54		1.42	2.16
	FEMALE WITH EGG	0.03	0.04	0.16	0.03	0.02	0.06	26.7	0.90	1.11	4.36	0.85	0.43	1.53
	MALE	0.08	0.08	0.37		0.35	0.18	14.8	1.24	1.23	5.42		5.20	2.62
	COPEPODID I-V	0.52	0.58	2.16	0.86	1.89	1.20	5.7	2.99	3.34	12.40	4.96	10.83	6.90
	TOTAL	0.77	0.79	2.90	0.90	2.32	1.54		8.12	7.53	26.72	5.81	17.88	13.21
A. vernalis	FEMALE							40.2						
	FEMALE WITH EGG			0.01	0.02		0.00	48.3			0.25	0.77		0.20
	MALE			0.001	0.03		0.01	12.1			0.01	0.39		0.08
	COPEPODID I-V	0.08	0.23	0.08	1.09	0.54	0.41	5.6	0.47	1.29	0.48	6.12	3.06	2.28
	TOTAL	0.08	0.23	0.09	1.14	0.54	0.42		0.47	1.29	0.71	7.28	3.06	2.56
M. edax	FEMALE	0.002			0.02		0.00	99.6	0.21			1.59		0.36
	FEMALE WITH EGG	0.002	0.003	0.01	0.02	0.0002	0.01	119.5	0.25	0.31	0.61	1.91	0.02	0.62
	MALE				0.03		0.01	27.0				0.86		0.17
	COPEPODID I-V			0.04		0.10	0.03	18.0			0.74		1.73	0.49
	TOTAL	0.004	0.003	0.05	0.06	0.10	0.04		0.46	0.31	1.34	4.37	1.75	1.65
T. p. mexicanus	FEMALE				0.06	0.14	0.04	6.5				0.41	0.93	0.27
	FEMALE WITH EGG	0.02					0.003	7.8	0.13					0.03
	MALE					0.05	0.01	4.5					0.21	0.04
	COPEPODID I-V				0.08	0.08	0.03	2.1				0.17	0.17	0.07
	TOTAL	0.02			0.14	0.27	0.09		0.13			0.58	1.31	0.40
D. minutus	FEMALE	0.02			0.11	0.02	0.03	30.5	0.51			3.41	0.49	0.88
	FEMALE WITH EGG		0.02	0.04	0.06	0.05	0.03	38.5		0.76	1.49	2.34	1.75	1.27
	MALE	0.03			0.21	0.13	0.07	27.2	0.91			5.65	3.48	2.01
	COPEPODID I-V	0.30	0.10	0.16	0.18	0.03	0.16	7.7	2.34	0.80	1.26	1.36	0.25	1.20
	TOTAL	0.35	0.12	0.20	0.58	0.22	0.29		3.76	1.56	2.75	12.76	5.97	5.36
D. oregonensis	FEMALE				0.02	0.03	0.01	68.9				1.10	2.20	0.66
	FEMALE WITH EGG			0.003	0.01		0.003	82.6			0.21	0.91		0.22
	MALE				0.05	0.02	0.01	51.2				2.48	0.82	0.66
	COPEPODID I-V	0.02			0.16	0.34	0.10	15.5	0.26			2.48	5.22	1.59
	TOTAL	0.02		0.003	0.24	0.36	0.13		0.26		0.21	6.95	8.24	3.13
D. sicilis	FEMALE	0.03	0.02		0.001		0.01	122.2	4.11	2.54		0.12		1.35
	FEMALE WITH EGG	0.01	0.001	0.01			0.004	146.7	1.39	0.19	1.12			0.54
	MALE	0.02	0.02		0.02	0.03	0.02	99.4	1.67	2.07		1.59	3.18	1.70
	COPEPODID I-V	0.81	1.79	2.82	1.30	1.10	1.56	23.8	19.23	42.66	67.14	30.91	26.33	37.26
	TOTAL	0.87	1.83	2.82	1.31	1.14	1.59		26.40	47.46	68.26	32.62	29.51	40.85
L. macrurus	TOTAL	0.22	0.31	0.08	0.04	0.06	0.14	280.6	61.27	87.53	21.46	11.22	17.68	39.83
S. calanoides	TOTAL	0.01	0.04		0.01	0.03	0.02	1488.5	12.50	54.18		8.93	41.68	23.46
E. lacustris	ADULT	0.05	0.003	0.01	0.004	0.01	0.01	262.9	13.25	0.68	2.68	1.05	1.58	3.85
	COPEPODID I-V	0.03	0.04		0.03		0.02	53.0	1.78	2.21		1.70		1.14
	TOTAL	0.08	0.04	0.01	0.04	0.01	0.04		15.03	2.89	2.68	2.75	1.58	4.99
CYCLOPOID NAUPLII	N1-NVI	4.67	4.76	5.83	3.26	0.96	3.90	1.3	6.13	6.25	7.66	4.28	1.26	5.12
CALANOID NAUPLII	N1-NVI	0.24	0.62	0.57	0.26	0.11	0.36	1.5	0.34	0.91	0.84	0.37	0.16	0.53
D. retrocurva	FEMALE				0.05	0.05	0.02	33.8				1.62	1.62	0.65
	FEMALE WITH EGG					0.02	0.003	42.2					0.68	0.14
	MALE							11.1						
	JUVENILE	0.03	0.02	0.20	0.08	0.13	0.09	6.9	0.23	0.14	1.40	0.55	0.88	0.64
	TOTAL	0.03	0.02	0.20	0.13	0.19	0.12		0.23	0.14	1.40	2.17	3.17	1.42
D. galeata m.	FEMALE	0.03		0.08		0.02	0.03	61.5	2.06		5.01		0.98	1.61
	FEMALE WITH EGG	0.03		0.04			0.01	76.8	2.58		3.13			1.14
	MALE							27.1						
	JUVENILE	0.15	0.06	0.49	0.06	0.05	0.16	16.0	2.42	1.00	7.84	1.02	0.77	2.61
	TOTAL	0.22	0.06	0.61	0.06	0.06	0.20		7.07	1.00	15.99	1.02	1.75	5.37
D. longiremis	FEMALE	0.02					0.003	21.8	0.37					0.07
	FEMALE WITH EGG		0.0003				0.0001	27.3		0.01				0.00
	MALE							7.2						
	JUVENILE							3.4						
	TOTAL	0.02	0.0003				0.003		0.37	0.01				0.07
C. sphaericus	TOTAL	0.03		0.16	0.18	0.50	0.17	5.8	0.20		0.95	1.02	2.88	1.01
B. longirostris	AD+JUV	0.12	0.12	0.65	0.56	0.30	0.35	13.8	1.63	1.73	9.03	7.75	4.21	4.87
	FEMALE WITH EGG	0.02			0.02		0.01	17.3	0.29			0.28		0.11
	TOTAL	0.13	0.12	0.65	0.58	0.30	0.36		1.92	1.73	9.03	8.03	4.21	4.98
D. leuchtenbergianum	TOTAL			0.04	0.40	0.19	0.13	17.2			0.70	6.89	3.31	2.18
H. gibberum	TOTAL	0.24	0.17	0.33	0.02	0.02	0.15	132.4	31.13	22.03	43.21	2.12	2.12	20.12
L. kindtii	TOTAL	0.001		0.005	0.001		0.001	2943.8	3.09		13.51	2.94		3.91
P. pediculus	TOTAL			0.001			0.0002	228.0			0.23			0.05
Chaoborus sp	TOTAL				0.001		0.0002	7852.4				7.85		1.57
CYCLOPOIDA TOTAL	Ind.L^{-1}	5.55	5.79	8.86	5.50	4.19	5.98	μg.L^{-1}	15.3	15.4	36.4	22.3	25.3	22.94
	Ind.cm^{-2}	27.19	23.14	35.48	27.52	20.96	26.85	μg.cm^{-2}	75.0	61.5	145.8	111.6	126.3	104.05
CALANOIDA TOTAL	Ind.L^{-1}	1.78	2.97	3.69	2.45	1.95	2.57	μg.L^{-1}	119.6	194.5	96.2	75.6	104.8	118.15
	Ind.cm^{-2}	8.73	11.89	14.75	12.23	9.77	11.47	μg.cm^{-2}	585.9	778.2	384.8	378.1	524.1	530.21
CLADOCERA TOTAL	Ind.L^{-1}	0.67	0.37	2.00	1.36	1.26	1.14	μg.L^{-1}	44.0	24.9	85.0	24.2	17.4	39.11
	Ind.cm^{-2}	3.30	1.50	8.02	6.81	6.32	5.19	μg.cm^{-2}	215.6	99.6	340.1	121.0	87.2	172.69
TOTAL	Ind.L^{-1}	8.00	9.13	14.56	9.33	7.41	9.69	μg.L^{-1}	178.9	234.8	217.7	130.0	147.5	181.78
	Ind.cm^{-2}	39.22	36.53	58.23	46.64	37.05	43.63	μg.cm^{-2}	876.5	939.3	870.7	649.9	737.6	814.80
TOTAL VOLUME SAMPLED								L	4430	3616	3618	4520	4520	4140
SETTLED VOLUME NET PLANKTON								ml	25.8	25.3	37.7	6.9	8.7	20.88
CALCULATED SAMPLE WET WEIGHT								mg	792.4	849.1	787.1	587.5	666.8	736.6
SETTLED VOLUME WET WEIGHT								mg	25800	25300	37700	6900	8700	20880
CALCULATED/SETTLED									0.03	0.03	0.02	0.09	0.08	0.05

* Sample number is equivalent to Station Number in Fee et al. (1989)

Table 19. Abundance (individuals per litre) of zooplankton species life stages at 21 stations in Lake Nipigon, July 24 - 28, 1989. Total abundance also presented per square centimetre of lake surface area.

SPECIES		55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	78	79	80	LAKE
		ABUNDANCE																					
	STATION	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	78	79	80	LAKE
	DAY	24	24	24	24	24	24	25	25	25	25	25	25	26	26	26	26	26	26	28	28	28	AVG
	DEPTH (m)	60.0	40.0	60.0	30.0	60.0	40.0	45.0	45.0	15.0	15.0	40.0	60.0	40.0	40.0	40.0	12.0	40.0	60.0	50.0	50.0	50.0	42.46
C. b. thomasi	FEMALE	0.10	0.01		0.46	0.26	0.25	0.37	0.17	0.82	0.76	0.25	0.15	0.37	0.25	0.37	0.14	0.27	0.34	0.16	0.06	0.10	0.24
	FEMALE WITH EGG	0.10	0.02	0.04	0.35	0.03	0.12	0.20	0.13	0.60	0.38	0.06	0.08	0.10	0.12	0.33		0.23	0.15	0.05	0.06	0.08	0.13
	MALE	0.29	0.02	0.08	0.68	0.29	0.56	0.37	0.56	1.41	0.78	0.44	0.34	0.48	0.89	1.50	0.07	1.71	0.98	0.36	0.21	0.11	0.51
	COPEPODID I-V	0.20	0.06	0.12	0.79	1.01	0.98	1.38	1.60	6.31	2.83	3.39	1.31	3.39	3.12	2.83	2.38	2.58	2.75	0.67	0.26	0.14	1.56
	TOTAL	0.68	0.11	0.24	2.28	1.58	1.91	2.32	2.45	9.14	4.73	4.14	1.88	4.35	4.39	5.03	2.58	4.78	4.22	1.23	0.59	0.43	2.43
A. vernalis	FEMALE																						
	FEMALE WITH EGG																						
	MALE					0.01																	0.001
	COPEPODID I-V						0.02		0.02		0.003		0.01	0.02	0.08	0.04	0.07	0.04	0.01			0.02	0.01
	TOTAL					0.01	0.02		0.02		0.003		0.01	0.02	0.08	0.04	0.07	0.04	0.01			0.02	0.01
M. edax	FEMALE															0.001	0.01						0.001
	FEMALE WITH EGG											0.001					0.004						0.0002
	MALE															0.02							0.001
	COPEPODID I-V								0.02								0.07						0.003
	TOTAL								0.02			0.001				0.02	0.09						0.01
T. p. mexicanus	FEMALE																						
	FEMALE WITH EGG																						
	MALE																						
	COPEPODID I-V						0.02																0.001
	TOTAL						0.02																0.001
D. minutus	FEMALE		0.001	0.001					0.04	0.11		0.02	0.04	0.10	0.08	0.02	0.20						0.02
	FEMALE WITH EGG		0.001	0.002	0.01	0.002	0.02	0.002	0.02	0.05	0.11	0.03	0.03	0.12	0.10	0.04	0.20	0.02				0.03	0.03
	MALE			0.01	0.03		0.12			0.65	0.16	0.06		0.25	0.17	0.02	0.41		0.03	0.02	0.02	0.03	0.08
	COPEPODID I-V		0.01	0.01		0.10	0.02	0.02	0.04		0.16		0.05	0.10	0.31	0.29	0.46	0.04	0.11		0.02		0.08
	TOTAL		0.01	0.03	0.03	0.10	0.17	0.02	0.09	0.82	0.44	0.12	0.12	0.58	0.67	0.37	1.29	0.06	0.14	0.02	0.03	0.06	0.22
D. oregonensis	FEMALE				0.03									0.004	0.02	0.001	0.01					0.001	0.003
	FEMALE WITH EGG						0.001	0.001				0.003		0.003		0.001	0.01	0.001	0.001	0.0004		0.001	0.001
	MALE													0.01		0.003	0.01		0.001				0.001
	COPEPODID I-V													0.001	0.06	0.02							0.003
	TOTAL				0.03		0.001	0.001				0.003		0.01	0.08	0.03	0.03	0.001	0.002	0.0004		0.002	0.01
D. sicilis	FEMALE				0.002									0.02					0.001		0.001	0.001	0.001
	FEMALE WITH EGG	0.0003		0.0003		0.004		0.001	0.001	0.003			0.002	0.001	0.001	0.003		0.001	0.003	0.001	0.003	0.002	0.001
	MALE			0.0002	0.0034					0.01				0.001		0.01		0.001	0.003	0.03	0.002	0.01	0.003
	COPEPODID I-V	0.95	0.09	0.52	1.12	0.56	0.60	0.53	0.68	1.14	0.11	3.31	1.03	0.98	0.64	0.77	0.07	2.83	0.44	0.46	0.74	0.27	0.85
	TOTAL	0.95	0.09	0.52	1.12	0.56	0.60	0.53	0.68	1.15	0.11	3.31	1.04	1.00	0.65	0.78	0.07	2.83	0.44	0.50	0.74	0.28	0.86
D. ashlandi	FEMALE	0.03		0.03	0.11	0.04	0.04	0.02	0.13	0.22	0.05	0.04		0.06	0.12		0.004	0.08	0.05	0.02		0.02	0.05
	FEMALE WITH EGG	0.002	0.01	0.01		0.03	0.02	0.04	0.02	0.05	0.05	0.06					0.004	0.06		0.03	0.03	0.02	0.02
	MALE	0.04	0.03	0.05	0.08	0.11	0.12	0.09	0.04	0.22	0.11	0.06	0.03	0.02	0.06	0.06		0.06	0.04	0.03	0.06	0.03	0.06
	COPEPODID I-V	0.73	0.08	0.79	0.44	0.53	0.46	0.39	0.64	0.82	0.82	0.75	0.31	0.69	0.73	2.37	0.95	2.23	0.80	0.64	0.38	0.56	0.74
	TOTAL	0.80	0.12	0.88	0.63	0.71	0.67	0.53	0.83	1.31	1.03	0.92	0.34	0.77	0.92	2.43	0.96	2.43	0.90	0.72	0.46	0.62	0.87
L. macrurus	TOTAL	0.04	0.03	0.06	0.05	0.32	0.01	0.15	0.13	0.003	0.01	0.10	0.22	0.05	0.20	0.18	0.003	0.16	0.15	0.004	0.01	0.07	0.08
S. calanoides	TOTAL	0.002	0.001	0.002	0.0003	0.004		0.005	0.001			0.003	0.01	0.001	0.003	0.003		0.001	0.002	0.003		0.0004	0.002
E. lacustris	ADULT	0.002	0.01	0.0002	0.01	0.01	0.06	0.01	0.01	0.07	0.02	0.01	0.01	0.07	0.02	0.05	0.29	0.01	0.02	0.003	0.003	0.01	0.03
	COPEPODID I-V							0.02	0.06				0.01	0.06	0.04		0.34	0.02					0.02
	TOTAL	0.002	0.01	0.0002	0.01	0.01	0.06	0.03	0.07	0.07	0.02	0.01	0.03	0.13	0.06	0.05	0.63	0.03	0.02	0.003	0.003	0.01	0.05
CYCLOPOID NAUPLII	NI-NVI	1.71	0.41	1.82	7.72	3.63	6.09	5.00	6.46	22.09	7.45	8.42	3.43	5.67	7.78	12.77	10.20	12.81	7.30	5.04	4.30	2.91	5.97
CALANOID NAUPLII	NI-NVI	1.02	0.40	1.46	1.28	0.91	3.33	1.38	1.29	7.83	6.09	2.64	1.16	4.39	2.79	1.62	4.42	2.02	1.22	1.38	1.46	1.34	2.11
D. retrocurva	FEMALE			0.001			0.06	0.06	0.02	0.05	0.11	0.04	0.04	0.04	0.02	0.02	0.07	0.02	0.03	0.02	0.002		0.02
	FEMALE WITH EGG			0.0002	0.03	0.002	0.04	0.02	0.02	0.01	0.003	0.02	0.03	0.003	0.02	0.02	0.004			0.001			0.01
	MALE									0.11	0.05		0.03	0.10	0.06	0.04	0.07			0.02			0.02
	JUVENILE				0.05	0.05	0.15	0.09	0.09	0.16	0.22	0.04	0.11	0.19	0.15	0.08		0.12	0.04	0.03		0.02	0.06
	TOTAL			0.001	0.08	0.06	0.25	0.17	0.13	0.33	0.38	0.10	0.20	0.34	0.25	0.17	0.14	0.15	0.07	0.07	0.002	0.02	0.12
D. g. mendotae	FEMALE							0.02		0.11	0.05			0.06	0.04	0.02		0.02					0.01
	FEMALE WITH EGG						0.004		0.0005	0.003	0.01		0.01	0.02	0.04		0.03			0.0002			0.01
	MALE																0.07						0.003
	JUVENILE					0.01		0.02	0.06	0.05	0.11		0.04	0.19	0.15	0.02	0.07	0.02	0.01				0.03
	TOTAL					0.01	0.004	0.04	0.06	0.17	0.18		0.05	0.27	0.23	0.04	0.16	0.04	0.01	0.0002			0.05
D. longiremis	FEMALE						0.02																0.001
	FEMALE WITH EGG			0.0002	0.03	0.001		0.001															0.002
	MALE																						
	JUVENILE			0.002	0.03		0.04	0.06								0.02			0.04	0.05			0.01
	TOTAL			0.002	0.05	0.001	0.06	0.06								0.02			0.04	0.05			0.01
C. sphaericus	TOTAL									0.003													0.0001
B. longirostris	AD+JUV	0.23	0.03	0.08	0.49	0.16	1.46	0.86	0.79	2.56	1.36	0.52	0.14	0.17	1.52	2.10	2.18	2.56	1.41	0.67	0.42	0.69	0.90
	FEMALE WITH EGG		0.001	0.001	0.08	0.05	0.10	0.07	0.02	0.05	0.16	0.02		0.001	0.08	0.23		0.29	0.12	0.06	0.02	0.03	0.06
	TOTAL	0.23	0.03	0.08	0.57	0.22	1.58	0.94	0.81	2.61	1.52	0.54	0.14	0.17	1.60	2.33	2.18	2.85	1.54	0.74	0.43	0.72	0.96
D. leuchtenbergianum	TOTAL					0.001			0.02	0.003	0.003			0.001	0.001	0.001	1.02						0.04
H. gibberum	TOTAL	0.0003			0.001	0.01	0.04	0.01	0.003	0.05	0.05		0.003	0.004	0.02	0.004	0.002	0.01	0.004	0.02	0.003	0.001	0.01
L. kindtii	TOTAL	0.0002				0.01	0.01	0.002	0.001	0.003	0.02	0.003	0.01	0.001	0.02	0.003	0.004	0.001	0.003	0.001	0.004	0.002	0.003
P. pediculus	TOTAL	0.001			0.001	0.003	0.02	0.002	0.001	0.01	0.03			0.001	0.001	0.004		0.004	0.002	0.002	0.005	0.002	0.003
S. crystallina	TOTAL								0.001					0.0003									0.0001
M. relicta	TOTAL					0.01		0.01	0.001			0.01	0.01	0.003	0.001	0.003							0.001
G. lacustris	TOTAL							0.0005															0.00002
CYCLOPOIDA TOTAL	Ind.L-1	2.39	0.51	2.06	10.01	5.22	8.05	7.32	8.94	31.23	12.19	12.56	5.32	9.94	12.25	17.87	12.94	17.64	11.53	6.27	4.90	3.36	8.42
	Ind.cm-2	14.36	2.06	12.37	30.03	31.33	32.20	32.95	40.24	46.84	18.28	50.26	31.91	39.77	49.00	71.47	15.52	70.56	69.20	31.36	24.48	16.80	35.78
CALANOIDA TOTAL	Ind.L-1	2.82	0.67	2.98	3.14	2.61	4.83	2.65	3.09	11.18	7.69	7.09	2.91	6.94	5.36	5.47	7.41	7.54	2.87	2.62	2.72	2.39	4.20
	Ind.cm-2	16.91	2.66	17.87	9.43	15.65	19.31	11.93	13.92	16.77	11.54	28.38	17.46	27.76	21.45	21.88	8.89	30.15	17.23	13.10	13.62	11.95	17.85
CLADOCERA TOTAL	Ind.L-1	0.23	0.03	0.09	0.71	0.31	1.96	1.21	1.02	3.18	2.19	0.65	0.40	0.79	2.12	2.57	3.50	3.05	1.67	0.87	0.45	0.74	1.20
	Ind.cm-2	1.40	0.13	0.51	2.13	1.89	7.86	5.43	4.59	4.77	3.28	2.59	2.42	3.14	8.46	10.28	4.20	12.19	10.01	4.35	2.23	3.71	5.08
TOTAL	Ind.L-1	5.44	1.21	5.13	13.86	8.15	14.84	11.19	13.06	45.59	22.07	20.31	8.64	17.67	19.73	25.91	23.85	28.22	16.07	9.76	8.08	6.49	13.82
	Ind.cm-2	32.67	4.85	30.75	41.59	48.91	59.37	50.35	58.75	68.38	33.11	81.25	51.84	70.68	78.92	103.64	28.62	112.89	96.45	48.81	40.41	32.46	58.71

Table 20. Biomass (μg wet weight per litre) of zooplankton species life stages at 21 stations in Lake Nipigon, July 24 - 28, 1989. Total biomass also presented per square centimetre of lake surface area.

SPECIES		wet weight μg.Ind⁻¹	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	78	79	80	LAKE AVG
	BIOMASS																							
	STATION		55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	78	79	80	LAKE
	DAY		24	24	24	24	24	24	25	25	25	25	25	25	26	26	26	26	26	26	28	28	28	AVG
	DEPTH (m)		60.0	40.0	60.0	30.0	60.0	40.0	45.0	45.0	15.0	15.0	40.0	80.0	40.0	40.0	40.0	12.0	40.0	60.0	50.0	50.0	50.0	42.48
C. b. thomasi	FEMALE	22.3	2.12	0.23		10.31	5.76	5.57	8.21	3.69	18.20	18.98	5.57	3.34	8.36	5.57	8.36	3.03	6.03	7.58	3.57	1.43	2.14	5.35
	FEMALE WITH EGG	26.7	2.54	0.42	0.95	9.44	0.73	3.33	5.40	3.44	15.98	10.17	1.67	2.18	2.78	3.33	8.89		6.11	3.99	1.28	1.71	2.14	3.57
	MALE	14.8	4.23	0.31	1.21	10.06	4.23	8.31	5.45	8.17	20.93	11.27	6.46	5.03	7.08	13.24	22.18	1.01	25.24	14.49	5.21	3.08	1.66	7.61
	COPEPODID I-V	5.7	1.16	0.36	0.70	4.50	5.74	5.57	7.67	9.12	35.97	16.12	19.33	7.44	19.33	17.78	16.12	13.57	14.70	15.66	3.83	1.46	0.82	8.82
	TOTAL		10.05	1.31	2.86	34.31	16.45	22.78	26.92	24.43	91.08	64.55	33.02	17.99	37.53	39.92	55.52	17.61	52.08	41.73	13.89	7.67	6.76	25.34
A. vernalis	FEMALE	40.2																						
	FEMALE WITH EGG	48.3																						
	MALE	12.1					0.16																	0.01
	COPEPODID I-V	5.6						0.12		0.10		0.02		0.08	0.12	0.47	0.23	0.38	0.23	0.05			0.09	0.08
	TOTAL						0.16	0.12		0.10		0.02		0.08	0.12	0.47	0.23	0.38	0.23	0.05			0.09	0.09
M. edax	FEMALE	99.6															0.13	1.27						0.06
	FEMALE WITH EGG	119.5											0.16					0.51						0.03
	MALE	27.0															0.56							0.02
	COPEPODID I-V	16.0								0.33								1.22						0.06
	TOTAL									0.33			0.16				0.69	3.00						0.17
T. p. mexicanus	FEMALE	6.5																						
	FEMALE WITH EGG	7.7																						
	MALE	4.5																						
	COPEPODID I-V	2.1						0.04																0.002
	TOTAL							0.04																0.002
D. minutus	FEMALE	30.5		0.04	0.03					1.12	3.32		0.63	1.24	3.17	2.64	0.63	6.22						0.76
	FEMALE WITH EGG	36.5		0.05	0.06	0.19	0.06	0.76	0.05	0.67	1.99	3.97	1.19	0.99	4.56	3.80	1.52	7.46	0.76				1.17	1.20
	MALE	27.2			0.37	0.74		3.39			17.76	4.44	1.70		6.79	4.53	0.57	11.10		0.74	0.44	0.44	0.67	2.22
	COPEPODID I-V	7.7		0.08	0.10		0.73	0.16	0.14	0.28		1.26		0.42	0.80	2.40	2.24	3.67	0.32	0.84		0.12		0.62
	TOTAL			0.17	0.56	0.93	0.80	4.31	0.23	2.08	23.06	9.67	3.52	2.66	15.32	13.26	4.96	28.43	1.08	1.58	0.44	0.56	2.04	4.80
D. oregonensis	FEMALE	68.9				1.87									0.27	1.43	0.09	0.88					0.07	0.18
	FEMALE WITH EGG	82.6						0.11	0.09				0.21		0.21		0.11	1.05	0.11	0.07	0.03		0.08	0.08
	MALE	51.2													0.27		0.13	0.44		0.04				0.04
	COPEPODID I-V	15.5													0.02	0.97	0.32							0.05
	TOTAL					1.87		0.11	0.09				0.21		0.77	2.40	0.65	2.37	0.11	0.11	0.03		0.15	0.36
D. sicilis	FEMALE	122.2				0.21									2.54					0.10		0.12	0.12	0.14
	FEMALE WITH EGG	146.7	0.05		0.05		0.62		0.17	0.17	0.50			0.25	0.19	0.19	0.38		0.19	0.50	0.12	0.44	0.29	0.18
	MALE	99.4			0.02	0.34					0.68				0.13		0.65		0.13	0.25	3.18	0.20	0.50	0.26
	COPEPODID I-V	23.8	22.66	2.23	12.30	26.54	13.27	14.36	12.70	18.20	27.19	2.59	78.71	24.60	23.27	15.36	18.32	1.62	67.33	10.36	11.04	17.52	6.47	20.33
	TOTAL		22.71	2.23	12.37	27.09	13.89	14.36	12.87	16.37	28.38	2.59	78.71	24.85	26.13	15.54	19.34	1.62	67.65	11.21	14.34	18.28	7.39	20.91
D. ashlandi	FEMALE	68.9	1.87		1.87	7.50	2.81	2.87	1.27	8.87	14.99	3.75	2.87		4.30	8.60		0.29	5.73	3.75	1.10		1.10	3.47
	FEMALE WITH EGG	82.6	0.14	0.64	1.19		2.25	1.72	3.04	1.52	4.49	4.49	5.15					0.36	5.15		2.64	2.64	1.32	1.68
	MALE	51.2	2.09	1.60	2.79	4.18	5.57	6.39	4.71	1.86	11.14	5.57	3.19	1.39	1.06	3.19	3.19		3.19	2.09	1.64	3.28	1.64	2.99
	COPEPODID I-V	15.5	11.38	1.29	12.23	6.75	8.22	7.42	5.99	9.98	12.65	12.65	11.61	4.85	10.64	11.28	36.75	14.76	34.50	12.44	9.92	5.95	8.68	11.43
	TOTAL		15.49	3.53	18.08	18.42	18.85	18.39	15.01	22.26	43.28	26.46	22.82	6.24	16.00	23.08	39.95	15.40	48.58	18.27	15.30	11.87	12.74	19.57
L. macrurus	TOTAL	280.6	10.73	9.48	17.41	15.26	89.44	1.46	41.30	37.75	0.95	1.91	28.45	60.34	14.23	55.81	51.07	0.72	44.14	43.17	1.12	3.09	19.92	23.36
S. calanoides	TOTAL	1489.0	2.53	1.55	2.53	0.51	6.33		8.85	1.37			3.87	18.98	1.94	3.87	3.87		1.94	2.53	4.47		0.60	3.09
E. lacustris	ADULT	262.9	0.45	1.71	0.04	1.34	2.01	15.38	3.02	3.33	17.88	4.47	2.05	3.80	18.46	5.81	12.99	75.98	3.08	4.02	0.79	0.79	1.31	7.33
	COPEPODID I-V	53.0							0.98	2.93				0.72	3.31	2.20		18.02	1.10					1.17
	TOTAL		0.45	1.71	0.04	1.34	2.01	15.38	4.00	6.25	17.88	4.47	2.05	4.52	21.76	8.01	12.99	94.00	4.18	4.02	0.79	0.79	1.31	8.50
CYCLOPOID NAUPLII	NI-NVI	1.3	2.23	0.53	2.37	10.04	4.72	7.92	6.51	8.40	28.71	9.69	10.95	4.48	7.25	10.11	16.60	13.26	16.66	9.49	6.55	5.60	3.79	7.76
CALANOID NAUPLII	NI-NVI	1.5	1.53	0.59	2.22	1.92	1.37	4.99	2.07	1.93	11.75	9.14	3.96	1.73	6.58	4.18	2.43	6.63	3.03	1.64	2.06	2.16	2.02	3.17
D. retrocurva	FEMALE	33.8			0.03			2.11	1.87	0.62	1.84	3.68	1.41	1.38	1.41	0.70	0.70	2.30	0.70	0.92	0.54	0.07		0.81
	FEMALE WITH EGG	42.2			0.01	1.15	0.07	1.76	0.78	0.78	0.29	0.14	0.88	1.15	0.11	0.88	0.88	0.18			0.04			0.36
	MALE	11.1									1.21	0.60		0.30	1.15	0.69	0.46	0.75			0.16			0.21
	JUVENILE	6.9				0.38	0.38	1.00	0.63	0.63	1.13	1.50	0.29	0.75	1.29	1.00	0.57		0.86	0.28	0.22		0.11	0.46
	TOTAL				0.04	1.52	0.45	4.87	3.28	2.03	4.46	5.93	2.57	3.58	3.96	3.28	2.62	3.23	1.56	1.20	0.98	0.07	0.11	1.83
D. g. mendotae	FEMALE	61.5							1.13		6.69	3.36			3.84	2.56	1.28		1.28					0.80
	FEMALE WITH EGG	76.8						0.30		0.04	0.26	1.04		1.04	1.90	3.19		1.96			0.02			0.39
	MALE	27.1																1.84						0.07
	JUVENILE	16.0					0.22		0.29	0.88	0.87	1.74		0.65	3.00	2.33	0.33	1.09	0.33	0.22				0.48
	TOTAL						0.22	0.30	1.43	0.92	7.82	6.13		1.70	8.73	8.08	1.61	4.89	1.61	0.22	0.02			1.75
D. longiremis	FEMALE	21.8						0.45																0.03
	FEMALE WITH EGG	27.3			0.005	0.74	0.02		0.03															0.06
	MALE	7.2																						
	JUVENILE	3.4			0.01	0.09		0.14	0.19								0.07			0.14	0.16			0.03
	TOTAL				0.01	0.64	0.02	0.59	0.22								0.07			0.14	0.16			0.12
C. sphaericus	TOTAL	5.8									0.02													0.001
B. longirostris	AD+JUV	13.8	3.19	0.43	1.13	6.78	2.25	20.38	11.93	10.92	35.28	18.77	7.18	1.88	2.30	20.95	28.99	30.03	36.31	19.52	9.27	5.74	9.49	12.39
	FEMALE WITH EGG	17.3		0.02	0.01	1.41	0.94	1.80	1.27	0.32	0.94	2.82	0.36		0.02	1.44	3.96		5.04	2.12	1.11	0.28	0.56	1.03
	TOTAL		3.19	0.45	1.14	8.17	3.19	22.16	13.21	11.24	36.22	21.59	7.54	1.88	2.32	22.39	32.95	30.03	40.34	21.84	10.38	6.02	10.05	13.42
D. leuchtenbergianum	TOTAL	17.2					0.01			0.32	0.06	0.06			0.02	0.02	0.02	17.54						0.72
H. gibberum	TOTAL	132.4	0.05			0.14	1.80	5.51	0.76	0.46	7.20	7.20		0.45	0.52	2.07	0.52	0.23	0.69	0.56	2.62	0.40	0.13	1.26
L. kindtii	TOTAL	2943.8	0.50				27.52	15.31	6.77	3.39	10.01	60.05	7.65	15.01	3.83	49.75	7.65	12.51	3.83	10.01	1.77	11.76	5.89	10.28
P. pediculus	TOTAL	228.0	0.19			0.16	0.58	4.74	0.52	0.16	1.55	6.20			0.30	0.30	0.89		0.89	0.39	0.46	1.14	0.46	0.77
S. crystallina	TOTAL	503.0								0.58					0.13									0.03
M. relicta	TOTAL	26500.0					180.20		152.38	30.47			199.81	247.78	75.79	20.67	68.90							39.26
G. lacustris	TOTAL	47014.0							21.63															0.87
CYCLOPOIDA TOTAL	μg.L⁻¹		12.3	1.8	5.2	44.4	21.3	30.9	33.4	33.3	119.8	64.3	44.1	22.5	44.9	50.5	73.1	34.2	69.0	51.3	20.4	13.3	10.6	33.4
	μg.cm⁻²		73.7	7.4	31.4	133.1	128.0	123.5	160.4	149.7	179.7	96.4	176.5	135.1	179.6	202.0	292.2	41.1	275.9	307.8	102.2	66.3	53.2	141.7
CALANOIDA TOTAL	μg.L⁻¹		53.4	19.3	53.2	67.3	132.7	59.0	82.4	86.0	125.3	54.2	143.6	119.3	102.7	126.2	135.3	149.2	170.7	82.7	38.6	36.8	46.2	83.7
	μg.cm⁻²		320.6	77.0	319.3	202.0	796.1	236.0	370.9	396.1	187.9	81.3	574.4	716.0	410.9	504.6	541.1	179.0	682.8	496.4	192.8	183.8	230.8	355.7
CLADOCERA TOTAL	μg.L⁻¹		3.9	0.5	1.2	10.8	33.6	53.5	26.2	19.1	67.3	107.2	17.8	22.6	19.8	85.9	46.3	68.4	48.9	34.2	16.3	19.4	16.6	30.2
	μg.cm⁻²		23.6	1.8	7.1	32.4	202.8	214.0	117.8	85.9	101.0	160.7	71.0	135.7	79.2	343.6	185.3	62.1	195.7	204.9	81.4	97.0	83.2	128.2
TOTAL	μg.L⁻¹		69.6	21.6	59.6	122.5	368.0	143.4	316.0	170.8	312.4	225.7	405.3	412.2	243.2	283.2	323.5	251.8	288.6	168.2	75.3	69.4	73.4	187.4
	μg.cm⁻²		417.9	86.2	367.8	367.5	2208.2	573.5	1422.2	768.7	468.6	338.5	1621.2	2473.4	972.9	1132.8	1294.2	302.2	1154.3	1009.1	376.4	347.2	367.2	796.0

Table 21. Settled volumes of net plankton in 6 NOLSS lakes during the open water season 1987.

*SAMPLE NUMBER	LAKE	DATE	SAMPLE DEPTH (m)	SAMPLED VOLUME (m^3)	SETTLED VOLUME (ml)
4	GREEN	05/14/87	17.00	1.54	19.80
10		06/01/87	14.00	1.27	20.30
16		06/22/87	16.00	1.36	28.00
22		07/13/87	17.00	1.54	15.30
28		08/04/87	14.00	1.27	11.60
34		08/24/87	14.00	1.27	8.90
40		09/14/87	14.00	1.27	10.60
47		10/14/87	13.00	1.18	16.50
5	ORANGE	05/14/87	25.00	2.26	3.85
11		06/01/87	21.00	1.90	7.60
17		06/22/87	17.00	1.54	8.70
23		07/13/87	22.00	1.99	26.30
29		08/04/87	28.00	2.53	12.40
35		08/24/87	16.00	1.45	27.70
41		09/14/87	25.00	2.26	4.00
45		10/13/87	25.00	2.26	2.40
3	LINGE	05/14/87	17.00	1.54	7.40
9		06/01/87	20.00	1.81	48.60
15		06/22/87	21.00	1.90	36.30
21		07/13/87	17.00	1.54	13.30
27		08/04/87	20.00	1.81	38.10
33		08/24/87	18.00	1.63	7.50
39		09/14/87	22.00	1.99	7.60
48		10/14/87	12.00	1.08	21.80
6	MUSCLOW	05/14/87	23.00	2.08	5.15
12		06/01/87	18.00	1.63	7.20
18		06/22/87	18.00	1.63	10.50
24		07/13/87	20.00	1.81	6.90
30		08/04/87	30.00	2.71	14.50
36		08/24/87	9.00	0.81	3.80
42		09/14/87	19.00	1.72	4.10
46		10/13/87	20.00	1.81	2.50
1	SYDNEY	05/14/87	25.00	2.26	23.60
7		06/01/87	21.00	1.90	19.65
13		06/22/87	35.00	3.18	32.50
19		07/13/87	25.00	2.26	31.90
25		08/04/87	30.00	2.71	17.50
31		08/24/87	30.00	2.71	8.00
37		09/14/87	50.00	4.52	12.40
43		10/13/87	46.00	4.16	4.85
2	TROUT	05/14/87	20.00	1.81	4.40
8		06/01/87	7.00	0.63	6.25
14		06/22/87	35.00	3.16	20.00
20		07/13/87	30.00	2.71	13.00
26		08/04/87	30.00	2.71	15.20
32		08/24/87	25.00	2.26	8.20
38		09/14/87	40.00	3.62	10.00
44		10/13/87	20.00	1.81	15.50

	LAKE AREA (ha)	SEASON MEAN SETTLED VOLUME ($ml \cdot m^{-3}$)
GREEN	89.00	12.3
ORANGE	167.00	6.4
LINGE	706.00	13.6
MUSCLOW	2219.00	3.9
SYDNEY	5748.00	7.3
TROUT	34690.00	5.5

* Sample number is equivalent to Station number in Fee et al. (1989).

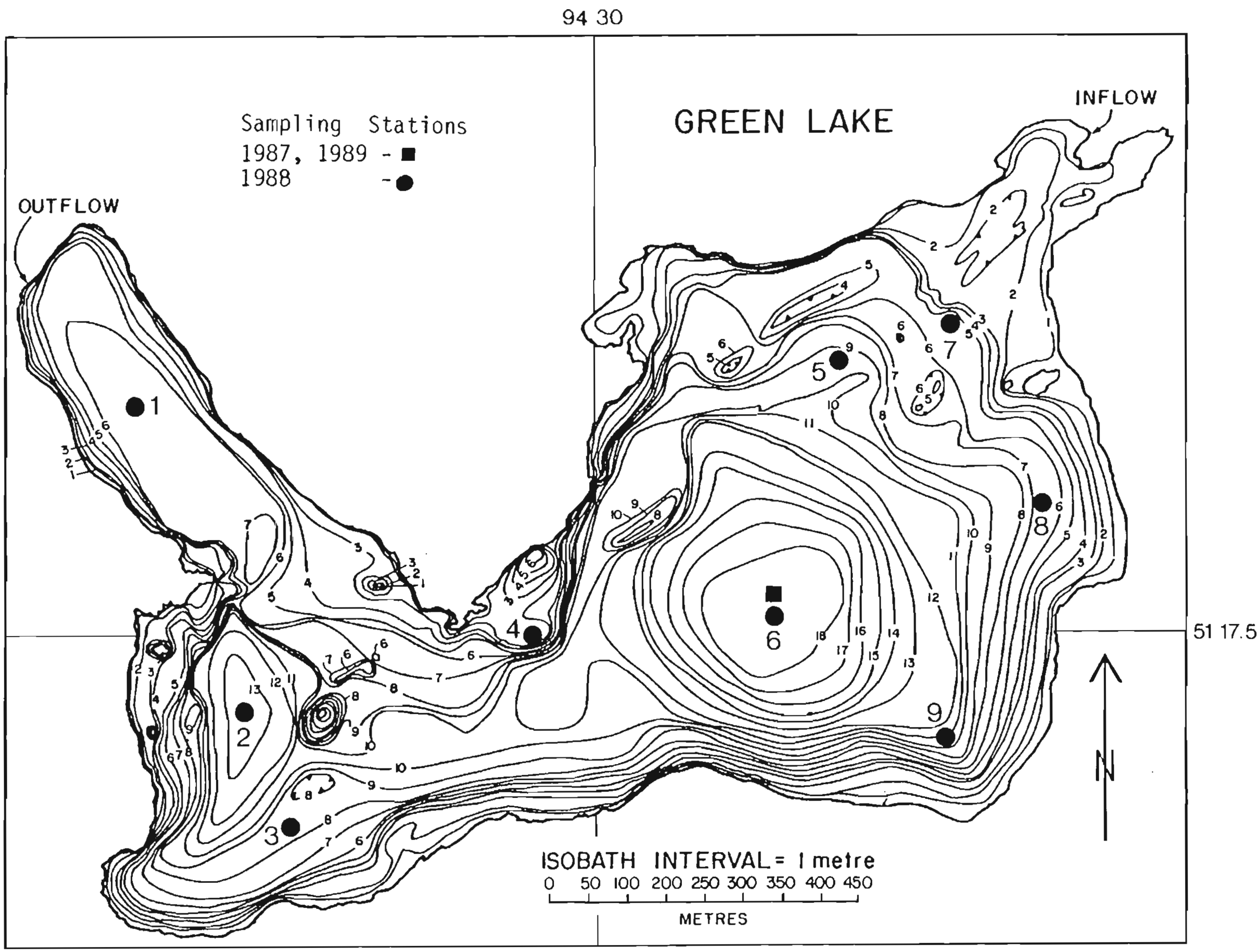

Fig. 1. Zooplankton sampling stations on Green Lake.

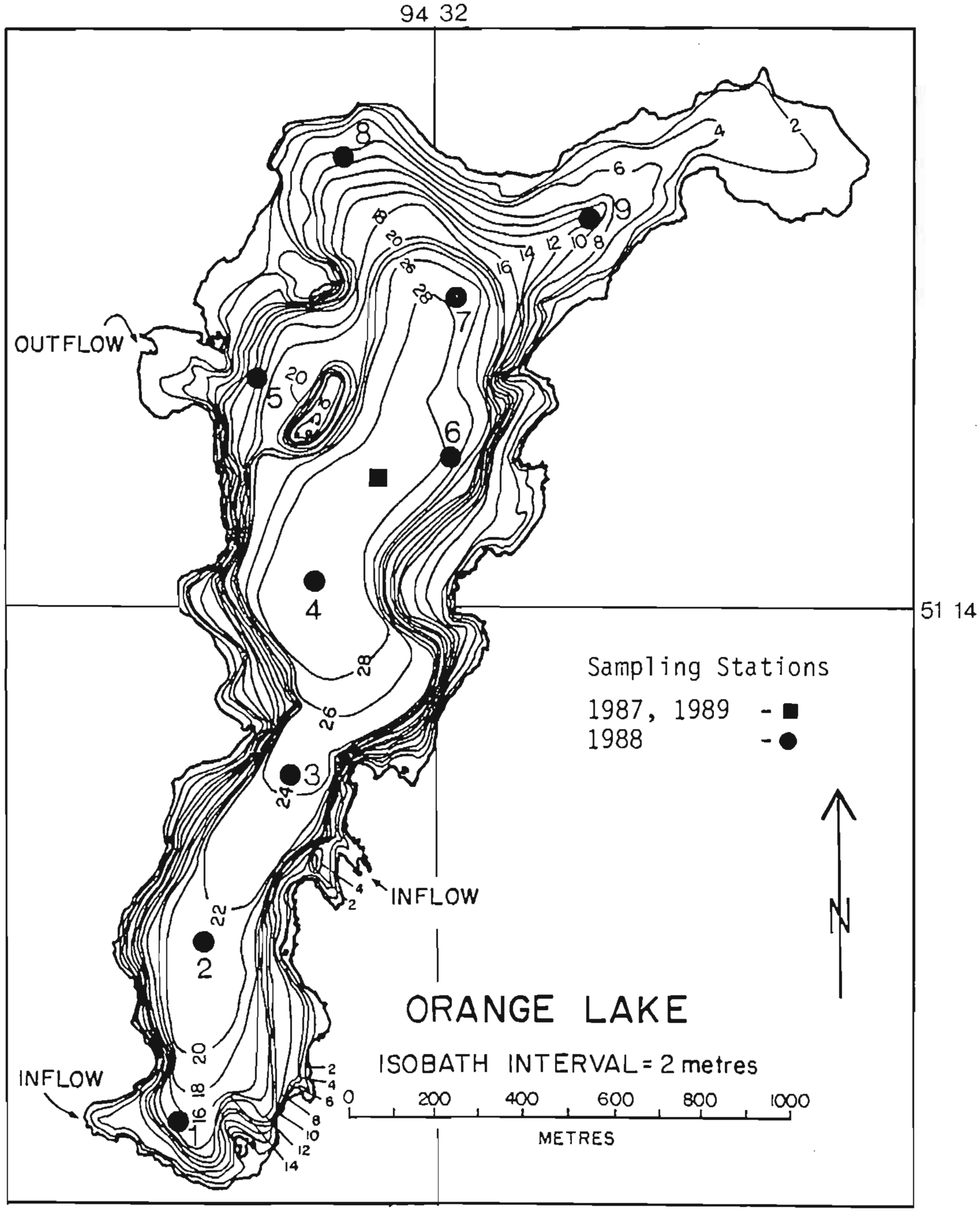

Fig. 2. Zooplankton sampling stations on Orange Lake.

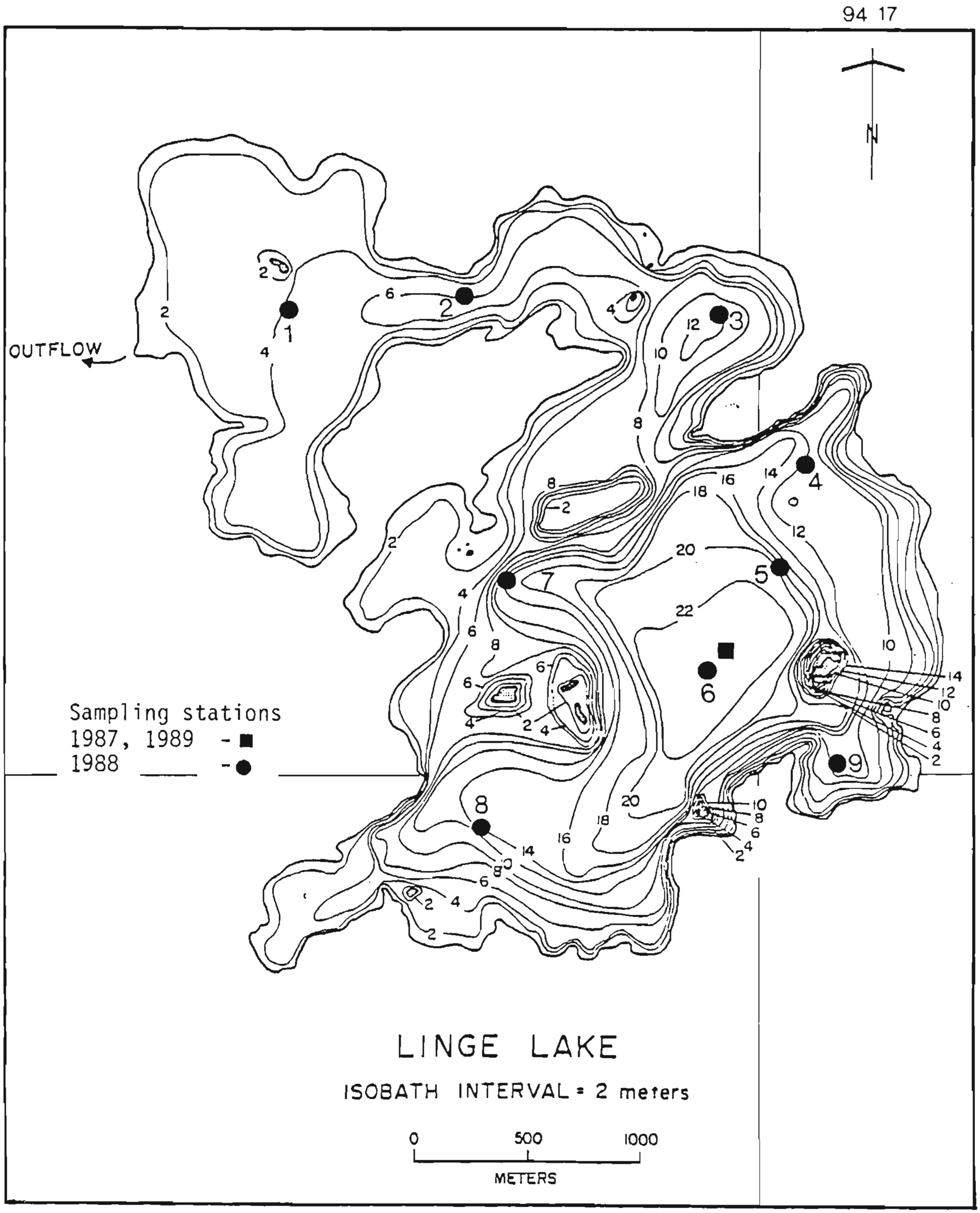

Fig. 3. Zooplankton sampling stations on Linge Lake.

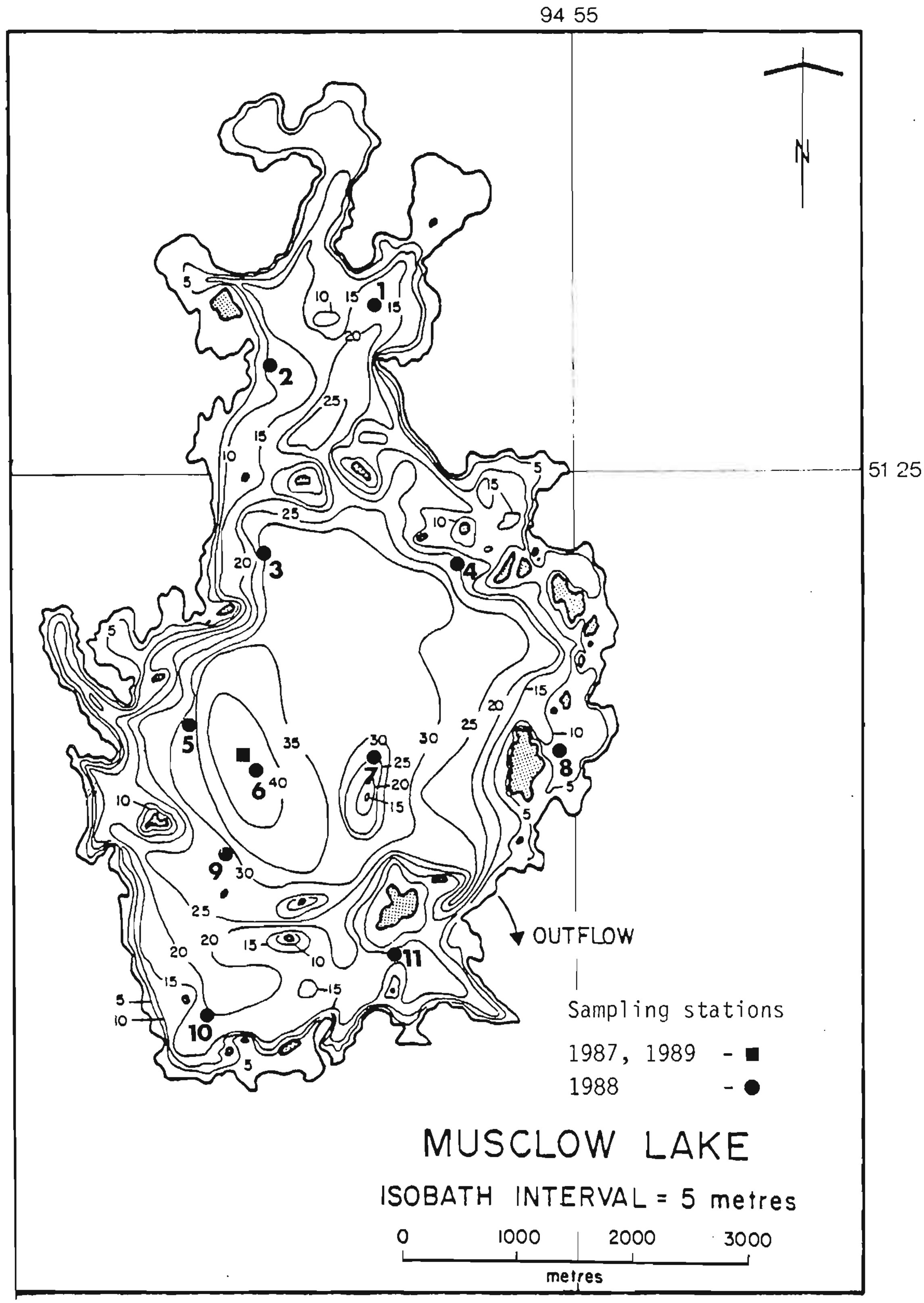

Fig. 4. Zooplankton sampling stations on Musclow Lake.

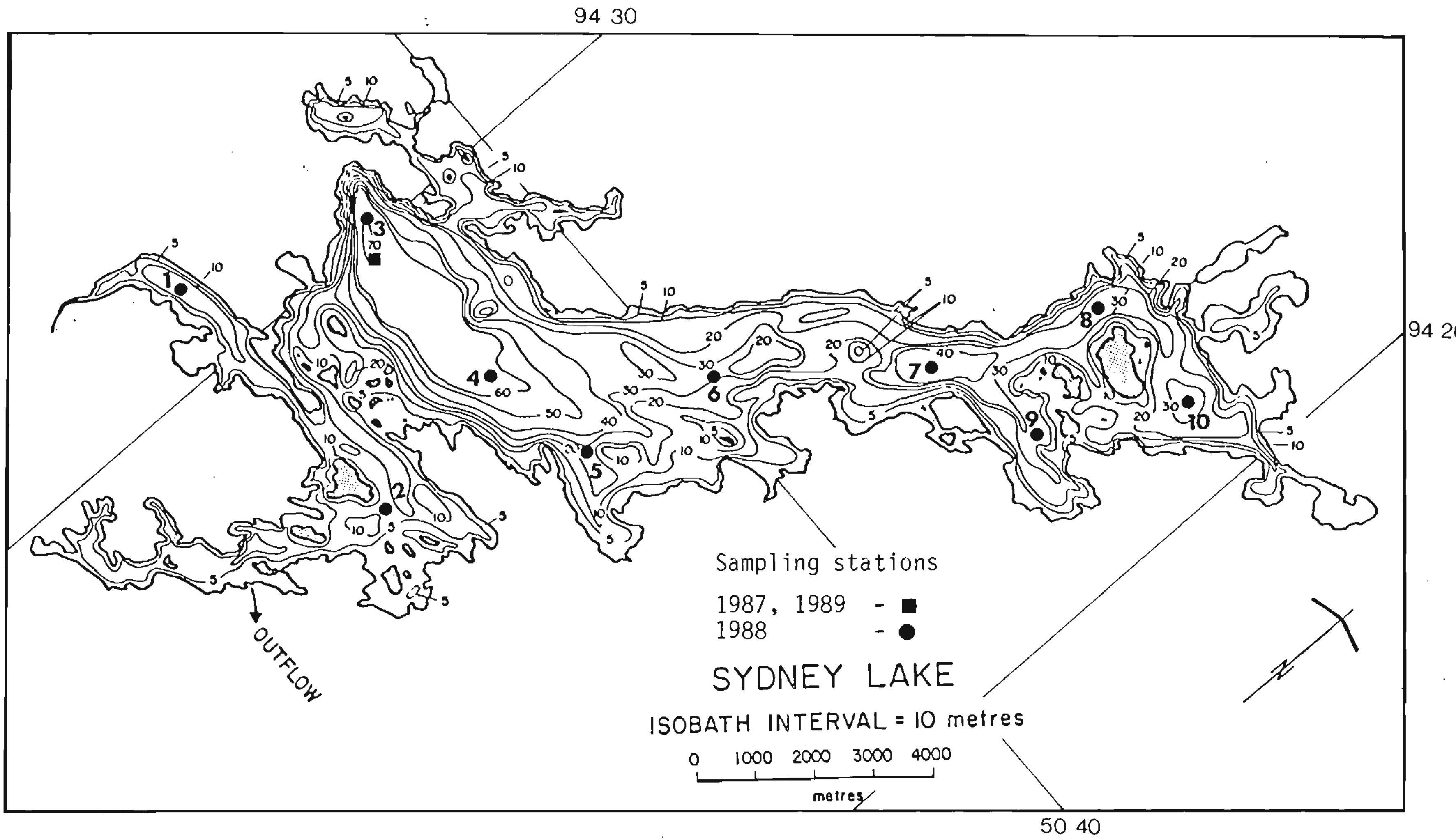

Fig. 5. Zooplankton sampling stations on Sydney Lake.

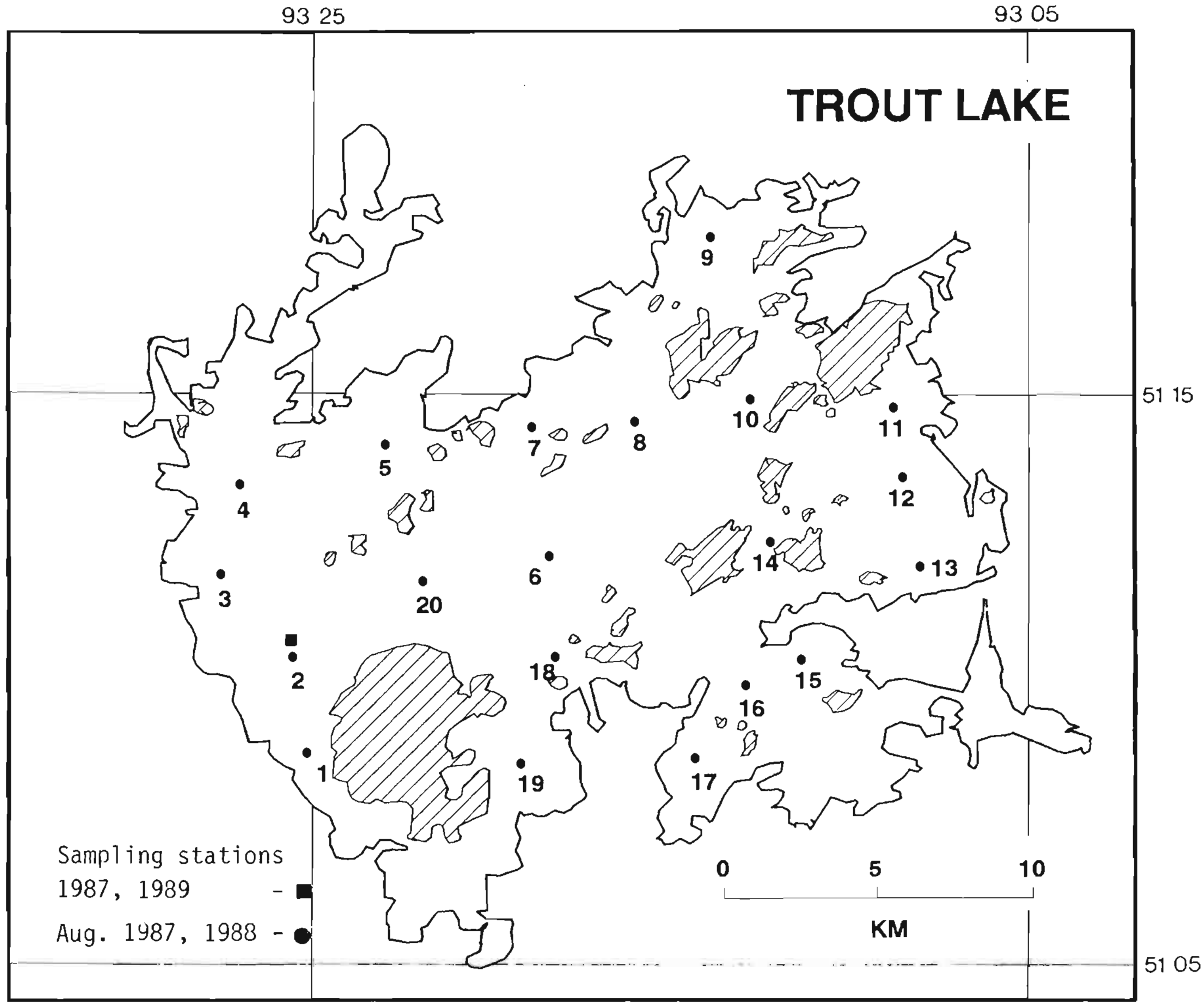

Fig. 6. Zooplankton sampling stations on Trout Lake.

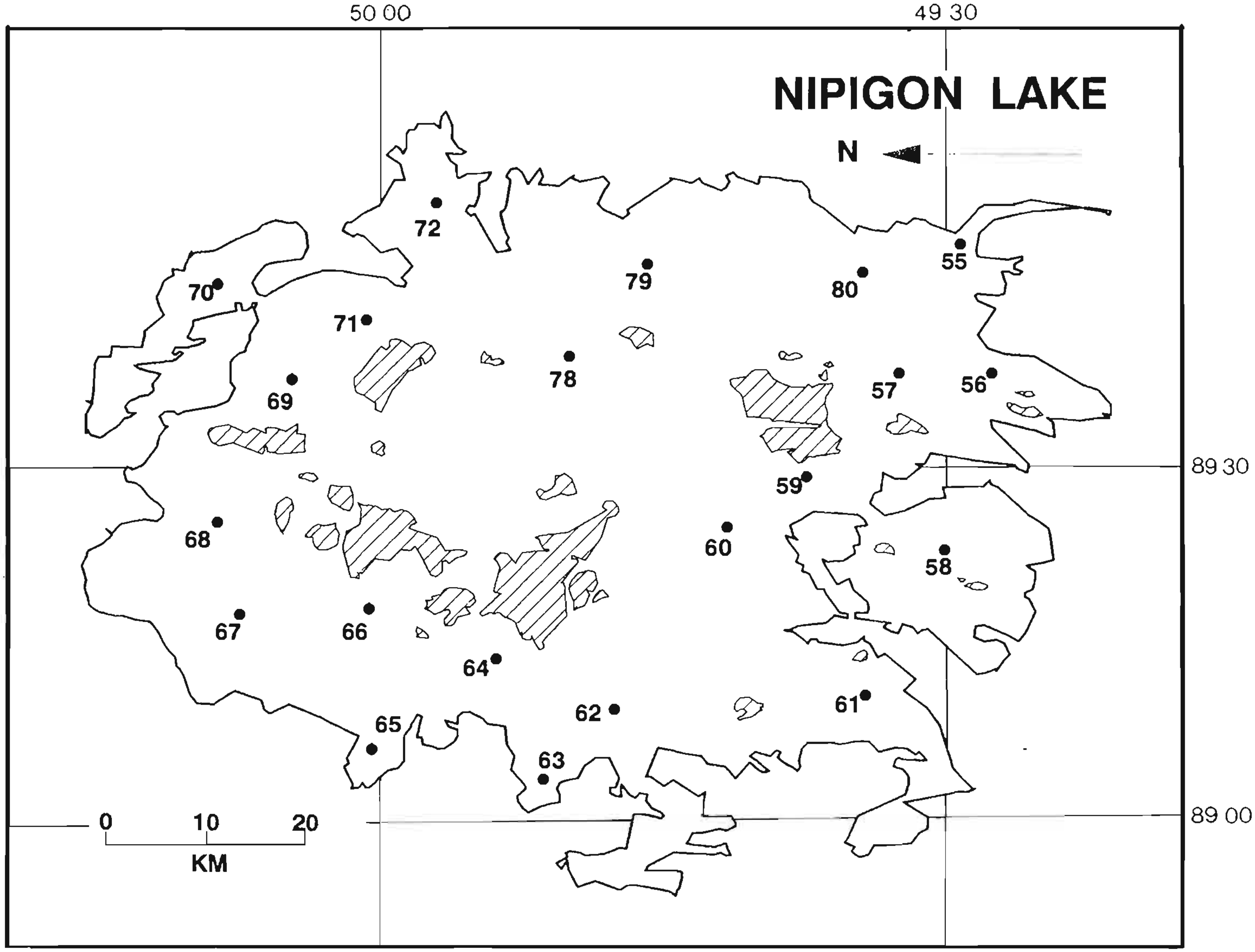

Fig. 7. Zooplankton sampling stations on Lake Nipigon, July 1989.