Canadian Data Report of

Fisheries and Aquatic Sciences 290

November 1981

SPECIES COMPOSITION AND SEASONAL ABUNDANCE OF ZOOPLANKTON IN LAKE 223, EXPERIMENTAL LAKES AREA, NORTHWESTERN ONTARIO: BEFORE AND DURING ACIDIFICATION 1974-1979

by

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This is the 40th Data Report

from the Western Region, Winnipeg

Cat. no. Fs 97-13/290 ISSN 0706-6435

Correct citation for this publication is:

Chang, P. S. S., D. F. Malley, I. L. Delbaere, and G. Mueller. 1981. Species composition and seasonal abundance of zooplankton in Lake 223, Experimental Lakes Area, northwestern Ontario: Before and during acidification, 1974-1979. Can. Data Rep. Fish. Aquat. Sci. 290: iv + 42 p.

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ABSTRACT

Chang, P. S. S., D. F. Malley, I. L. Delbaere, and G. Mueller. 1981. Species composition and seasonal abundance of zooplankton in Lake 223, Experimental Lakes Area, northwestern Ontario: Before and during acidification, 1974-1979. Can. Data Rep. Fish. Aquat. Sci. 290: iv + 42 p.

A list of zooplankton species and the densities of all but the rare species collected from Lake 223 in the Experimental Lakes Area, Ontario are presented for the two years prior to acidification, 1974 and 1975, and for the years 1976 to 1979 during which sulfuric acid was experimentally added to the epilimnion. During periods of thermal stratification, densities are generally reported for the three thermal layers. Most densities are based on counting of 7 to 9% of the volume of samples. In order to determine whether these counts provide representative data on the adult copepods and cladocerans, these densities were compared with those calculated from counts on 25% of the volume of samples. It was concluded that not all zeroes indicate lack of that species. Rather, zeroes indicate presence at a density below 500 m^{-3}. Water temperature profiles, Secchi disc visibility, range and mean pH concentration of L223 epilimnion water are included in this report.

Key words: zooplankton; lake acidification; thermal stratification; Precambrian Shield lake.

RESUME

Chang, P. S. S., D. F. Malley, I. L. Delbaere, and G. Mueller. 1981. Species composition and seasonal abundance of zooplankton in Lake 223, Experimental Lakes Area, northwestern Ontario: Before and during acidification, 1974-1979. Can. Data Rep. Fish. Aquat. Sci. 290: iv + 42 p.

L'ouvrage dresse la liste des espèces de zooplancton et des densités correspondantes de toutes les espèces, sauf les plus rares, que l'on trouve dans le lac 223, un des lacs du Région des Lacs Expérimentaux (Ontario). Les auteurs ont enregistré ces espèces et densités d'abord en 1974 et 1975 - les années qui ont précédé l'acidification - puis des années 1976 à 1979, au cours desquelles ils avaient ajouté de l'acide sulfurique à l'épilimnion. Durant les périodes de stratification thermique, ils ont enregistré les densités pour les trois couches thermiques. Les densités ont été obtenues en tenant compte de 7 à 9% du volume des échantillons. Pour déterminer si le calcul ainsi effectué fournit des données représentatives sur les adultes des copépodes et des cladocères, les auteurs ont comparé les densités constatées avec celles provenant de calculs faits à partir de 25% du volume des échantillons. Ils ont conclu que tous les densités à valeur zéro de l'ouvrage n'indiquent pas nécessairement une absence d'espèce, mais plutôt un zéro indique une densité du 0 à 500 m^{-3}. L'ouvrage comprend aussi les données suivantes: les profils de la température de l'eau, les degrés de visibilité calculés avec le disque Secchi, les variations de pH et le pH moyen de l'épilimnion. L'ouvrage décrit des méthodes d'échantillonnage du zooplancton.

Mots-clés: acidification du lac; stratification thermique; lac du bouclier précambrien.

INTRODUCTION

The artificial acidification of a small oligotrophic lake in the Precambrian Shield, Lake 223, in the Experimental Lakes Area of northwestern Ontario, began in 1976 and continues to the present. This whole-lake experiment attempts to describe the response of a typical Canadian Shield lake to the addition of known quantities of sulfuric acid and to elucidate mechanisms of the effects. Background data from 1974 to 1975, results from the first three years of acidification, 1976-1978, and the methods of acidification, are described by Schindler et al. (1980). Schindler (1980) evaluates the theory that susceptible lakes become more oligotrophic as a result of acidification.

This report presents the densities (individuals m^{-3}) of zooplankton species, including life stages of copepods, from Lake 223 for the years 1974 to 1979. During periods of thermal stratification, densities generally are separately reported for the three thermal layers. Densities for rare species are not reported, but all species identified in the samples are listed in Table 1, and the data are on file in the Freshwater Institute. These data describing the response of the zooplankton of Lake 223 to acidification to pH 5.6 are summarized by Malley and Chang (in press) and analyzed further by Malley et al. (in press), and Malley et al. (in prep.).

METHODS

Lake 223 is located at 49°42'N latitude and 93°42'W longitude in the Experimental Lakes Area, northwestern Ontario. It has an area of 27.27 ha, a maximum depth of 14.4 m, and a mean depth of 7.15 m. Lake morphometry, data on chemical and physical parameters and the acidification regime are described by Schindler et al. (1980).

The zooplankton sampling program in Lake 223 began in May 1974. Samples were taken near the centre of the lake over the deepest point at intervals of two to four weeks. In 1974, samples were obtained by using a transparent trap (Schindler 1969) of 28.7 L capacity. Samples were taken in a vertical series at 1 m or occasionally 2 m depth intervals and screened through a 53 μ mesh net. Trapfuls from a thermal layer were pooled giving an epilimnion, a metalimnion and a hypolimnion sample for each date. During periods of non-stratification, trapfuls from the entire water column were pooled.

In order to conserve sampling effort in 1975 and 1976, a 9.1 L plexiglass tube, 7.6 cm in diameter and 2 m in length, was used. The sampling was repeated 10 times and individual samples were pooled after filtration through 53 μ mesh net. Samples for this period thus represent the 0 to 2 m layer only.

In 1977, sampling was carried out with a 4 barrel, non-closing sampler which was hauled from the lake bottom to the lake surface, then from the lower limit of the thermocline to the lake surface and finally from the upper limit of the thermocline to the lake surface. Samples were thus overlapping and raw counts for the metalimnion were obtained by subtracting epilimnion raw counts from metalimnion plus epilimnion raw counts. Similarly, hypolimnion raw counts were derived by subtracting metalimnion plus epilimnion raw counts from whole column raw count. Negative densities resulting from these subtractions are represented in Appendix 1 as zeros. This sampler consisted of two 15 cm inside diameter plexiglass rings, 30 cm in depth joined together by 1.2 cm wide steel strapping so that the distance between their nearest edges was 26 cm. Perpendicular to this strapping was 12 cm of steel strapping attached to two 7.5 cm inside diameter plexiglass rings, 30 cm in depth. The large cylinders bore nets of 153 μ mesh, whereas the small cylinders bore 53 μ mesh nets. All nets were 1.5 m long and were tapered to 3.5 cm diameter at the lower edge. Three hauls were performed on each lake layer. The results of the three hauls were pooled separately for the large and for the small mesh nets.

In order to sample discretely the three thermal layers, a closing sampler was developed by W. Burton of the Freshwater Institute (see Chang et al. 1980 Fig.1). This was hauled from the bottom of the layer of interest to the top of that layer where it was closed by messenger. This sampler, employed in 1978, had one barrel fitted with 53 μ mesh net and the other with a 153 μ mesh net, both 1.5 m long and tapering to 3.5 cm diameter. The sampler was hauled three times through each layer and the large and small mesh samples were separately pooled for each layer.

In 1979, sampling methods were similar to those of 1978, except that both barrels of the closing sampler were fitted with nets of 53 μ mesh size. As a result, the total area of the sampler for the small mesh nets in 1979 was twice as large as in 1978. A summary of sampling techniques employed during the period 1974-1979 and the volumes of lake water sampled by each gear are given in Table 2.

Although different sampling devices were used during these years, treatment of samples was consistent. All samples were preserved immediately in the field with 4% formaldehyde. In the laboratory the samples were concentrated to a known volume and routinely two or three 1 mL aliquots from each sample were counted using an RA microscope and a Sedgwick-Rafter counting chamber. Adult crustaceans were identified to species. Eggs per female were recorded. Non-adult copepods were assigned as calanoid or cyclopoid and were identified to naupliar or copepodid stage. Where possible, rotifers were identified to species, otherwise to genus. Ovid rotifers as well as total numbers of each species were enumerated.

Identifications were made using Ward and Whipple (1959) and Brooks (1957) for crustaceans and Ruttner-Kolisko (1974) for rotifers.

RECOUNTING OF SAMPLES

In most cases two or three 1 mL aliquots were removed for counting from the sample, originally 30 to 45 mL in volume. In order to determine whether this counting of only 7 to 9% of the sample volume provides representative data on organisms present at low density such as adult copepods and cladocerans, ten 1 mL aliquots, or 25% of the sample

volume, were recounted from some samples. At recounting, all samples were brought to 40 mL volume for uniformity. All 10 aliquots were removed before any counted aliquots were returned to the sample. For comparison with the densities (individual m^{-3} lake water) calculated from the original two or three counts, three densities were calculated from the 10 recounts: one based on all 10 counts, one on the lowest 2 counts and one on the highest 2 counts (see Appendix 2). The lowest 2 counts and highest 2 counts give an estimate of range of densities which could be obtained by counting only two or three aliquots from a sample.

RESULTS

This report describes only the samples obtained with the 53 μ mesh nets. Results of sampling with 153 μ mesh nets are on file in the Freshwater Institute.

The zooplankton species identified from Lake 223 and their relative abundances during the period of 1974 to 1979 are listed in Table 1. Table 3 gives the mean and range of pH in the epilimnion of Lake 223 in ice-free seasons of 1974 to 1979. During this time sulfuric acid was added to the epilimnion to gradually decrease its mean pH from 6.7 to 5.60. Temperature profiles and Secchi disc visibility on or near each zooplankton sampling date are shown in Fig. 1. Densities of individual zooplankton species or life stages expressed as number of individual m^{-3} on each sampling date are presented in Appendix 1. The depths of the sampling layers for each date are also included. In 1977 to 1979, during periods of thermal stratification, the sampling layers of upper, middle and lower represent the epilimnion, metalimnion and hypoliminion, respectively. In 1974, the sampling layers may not coincide with the actual thermal layers. In 1975 and 1976 only the upper 2 m of the water column was sampled.

Appendix 2 compares the densities calculated after recounting ten 1 mL aliquots of samples with the densities based on the original two or three 1 mL aliquots. The densities based on the original two or three 1 mL aliquots with rare exception fall between the lowest and highest recounts. The densities based on the lowest pair of recounts and on the highest may vary by as much as 3-fold when densities are low. The proportional disagreement between recounts for species more abundant than 5000 m^{-3} is considerably less. In the latter case, the densities based on highest pair are within 50% of the lowest pair. Zeroes based on two or three 1 mL aliquots do not necessarily indicate absence of that organism, rather they indicate densities lower than about 500 m^{-3}.

ACKNOWLEDGMENTS

pH measurements were made by J. Prokopowich. Temperature and secchi disc depth data were provided by J. Penny. We thank the field personnel through the years for their assistance in the collection of zooplankton samples and field data including E. Matheson, J. Penny, I. Thorleifson, R. France and S. Prytchitka. We also thank D. Laroque and L. Wilson for typing this report.

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Table 1. Zooplankton species identified from Lake 223 during the period 1974-79. A + indicates that a species was present in low numbers usually less than 1,000 m^{-3} for crustaceans and 10,000 m^{-3} for rotifers, ++ indicates that it was frequently more numerous, and - indicates that no organisms were found in the subsamples.

Species	1974	1975	1976	1977	1978	1979
Phylum Arthropoda						
Class Crustacea						
Subclass Branchiopoda						
Division Oligobranchipoda						
Order Cladocera						
Suborder Calyptomera						
Family Daphniidae						
Daphnia retrocurva Forbes	-	+	-	-	-	-
Daphnia galaeta mendotae Birge	++	+	+	+	+	+
Family Bosminidae						
Bosmina longirostris (Müll.)	++	++	++	++	++	++
Family Sididae						
Diaphanosoma brachyurum (Liévin)	+	+	+	++	+	++
Latona setifera (Müll.)	-	-	-	-	-	+
Family Holopedidae						
Holopedium gibberum Zaddach	+	+	+	+	+	+
Suborder Gymnomera						
Family Leptodoridae						
Leptodora kindtii (Focke)	-	-	-	-	-	+
Subclass Copepoda						
Order Eucopepoda						
Suborder Calanoida						
Family Diaptomidae						
Diaptomus minutus Lilij.	++	++	++	++	+	++
Diaptomus sicilis Forbes	+	+	-	+	-	-
Family Temoridae						
Epischura lacustris Forbes	+	+	+	+	+	+
Calanoid nauplii	++	++	++	++	++	++
Calanoid copepodids	++	++	++	++	++	++
Suborder Cyclopoida						
Family Cyclopidae						
Cyclops bicuspidatus thomasi Forbes	++	+	-	++	++	++

Table 1. Cont'd.

Species	1974	1975	1976	1977	1978	1979
Cyclops vernalis Fischer	+	-	-	+	-	-
Mesocyclops edax (Forbes)	+	+	+	++	+	+
Tropocyclops prasinus mex. Kiefer	+	+	+	++	++	+
Cyclopoid nauplii	++	++	++	++	++	++
Cyclopoid copepodids	++	++	++	++	++	++
Phylum Rotifera						
Class Monogononta						
Order Flosculariacea						
Family Conochilidae						
Conochilus sp.	+	+	++	++	++	+
Family Testudinellidae						
Filinia longiseta (Ehrbg.)	+	-	-	+	-	+
Testudinella sp.	+	+	+	+	+	-
Pompholyx sp.	-	-	-	-	+	-
Order Collothecacea						
Family Collothecidae						
Collotheca sp.	++	++	++	++	++	+
Order Ploima						
Family Notommatidae						
Monommata sp.	-	-	-	+	+	-
Family Synchaetidae						
Ploesoma lenticulare Herrick	+	+	+	+	+	+
Polyarthra vulgaris Carlin	++	++	++	++	++	++
Polyarthra remata (Skorikow)	+	+	+	++	++	++
Polyarthra dolichoptera (Idelson)	-	-	-	-	+	-
Synchaeta sp.	-	-	-	-	+	+
Family Gastropodidae						
Ascomorpha ecaudis Petry	+	+	+	++	+	+
Gastropus stylifer (Imhof)	++	+	+	++	++	++
Gastropus hypotus Hudson & Gosse	-	-	-	+	-	-
Chromogaster sp.	+	-	-	+	-	-
Family Trichocercidae						
Trichocerca cylindrica (Imhof)	+	+	+	+	+	++
Trichocerca sp.	+	+	+	++	-	-

Table 1. Cont'd.

Species	1974	1975	1976	1977	1978	1979
Family Asplanchnidae						
Asplanchna sp.	+	-	-	-	-	-
Asplanchnopus sp.	-	-	-	-	-	+
Family Brachionidae						
Keratella taurocephala (Myers)	+	+	+	++	++	++
Keratella cochlearis (Gosse)	++	+	+	++	++	+
Keratella hiemalis Carlin	+	-	-	+	+	+
Keratella serrulata (Ehrbg.)	-	-	-	-	-	+
Kellicottia longispina (Kellicott)	++	+	+	++	++	++
Kellicottia bostoniensis (Rousselet)	+	-	-	++	++	++
Colurella sp.	-	+	-	-	-	-
Lepadella sp.	+	-	-	-	+	-
Trichotria sp.	-	-	-	-	+	-
Anuraeopsis fissa (Gosse)	+	+	+	-	-	+
Family Lecanidae						
Lecane sp. (includes *Monostyla* sp.)	+	+	+	+	+	+
Other globular rotifers	++	+	+	+	+	+

Table 2. Summary of methods used to sample zooplankton of Lake 223 during 1974-1979.

Year When Used	Sampling Device	Mesh Size of Nets	Vol. or Area of Sampler	Vol. of Lake Water Sampled	Remarks
1974	Schindler trap	53μ	28.7 L	28.7 L x no. of trapfuls pooled	Vertical series at 1 m intervals
1975-1976	2 m long plexi-glass tube	53μ	9.1 L	91 L	Surface to 2 m only
1977	4 barrel non-closing sampler	53μ (also 153μ)	88.36 cm^2 (353.44 cm^2)	Area of sampler x no. of hauls x depth of lake layer	Vertical hauls from various depths to the surface
1978	2 barrel closing sampler	53μ (also 153μ)	130.70 cm^2 (130.70 cm^2)	Area of sampler x no. of hauls x depth of lake layer	Vertical hauls at various depths
1979	2 barrel closing sampler	53μ	261.40 cm^2	Area of sampler x no. of hauls x depth of lake layer	Vertical hauls at various depths

Table 3. Mean and range of pH in the epilimnion of Lake 223 in the ice-free seasons of 1974 to 1979.

Year	Mean	Range
Pre-acidification		
1974	6.64	6.4-7.0
1975	6.61	6.5-7.0
During acidification		
1976	6.79	6.5-7.2
1977	6.08	5.6-6.3
1978	5.84	5.4-6.2
1979	5.60	5.4-5.8

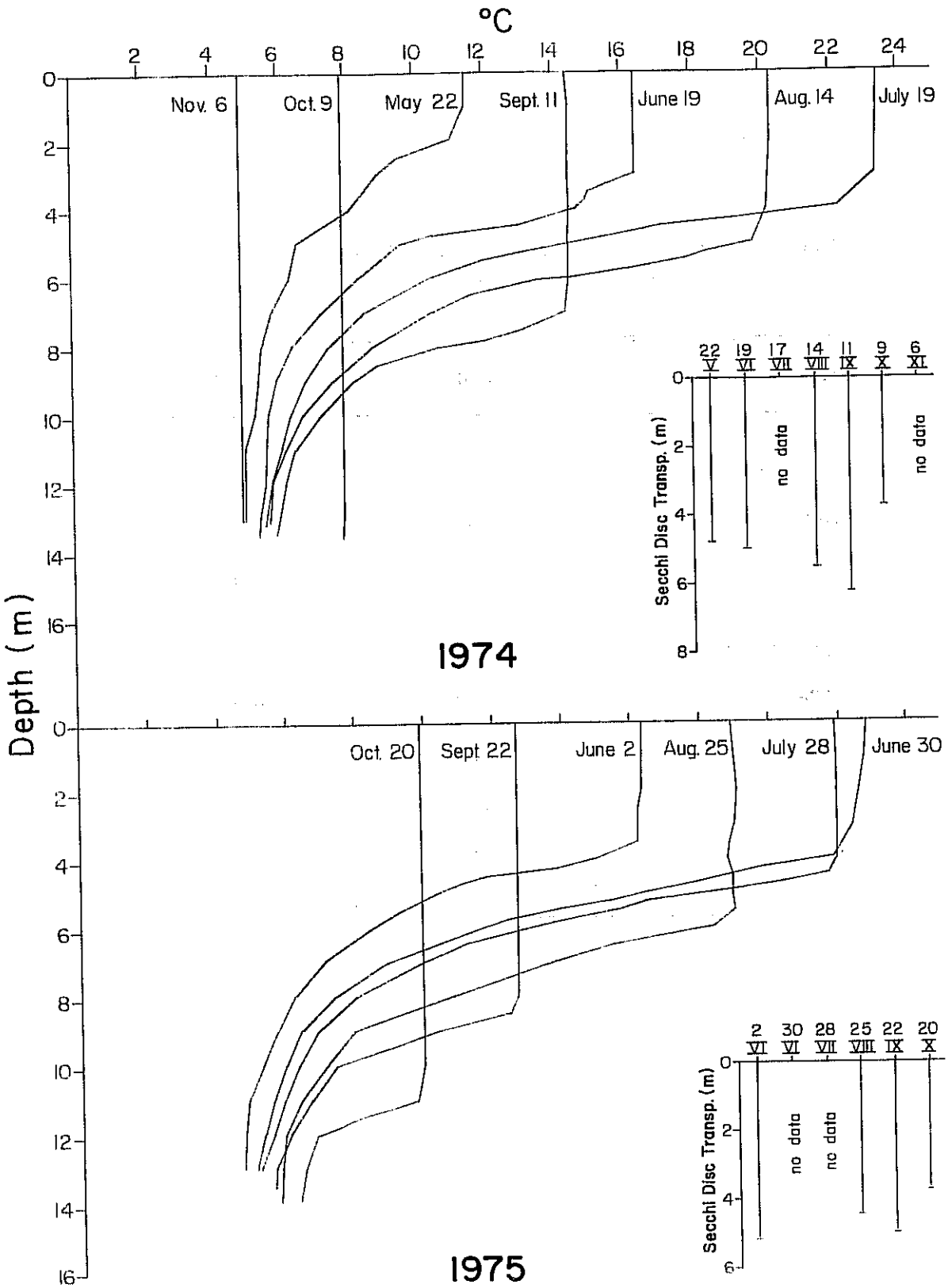

FIGURE 1. TEMPERATURE PROFILES AND SECCHI DISK VISIBILITY OF LAKE 223 ON OR NEAR EACH ZOOPLANKTON SAMPLING DATE, 1974-1979.

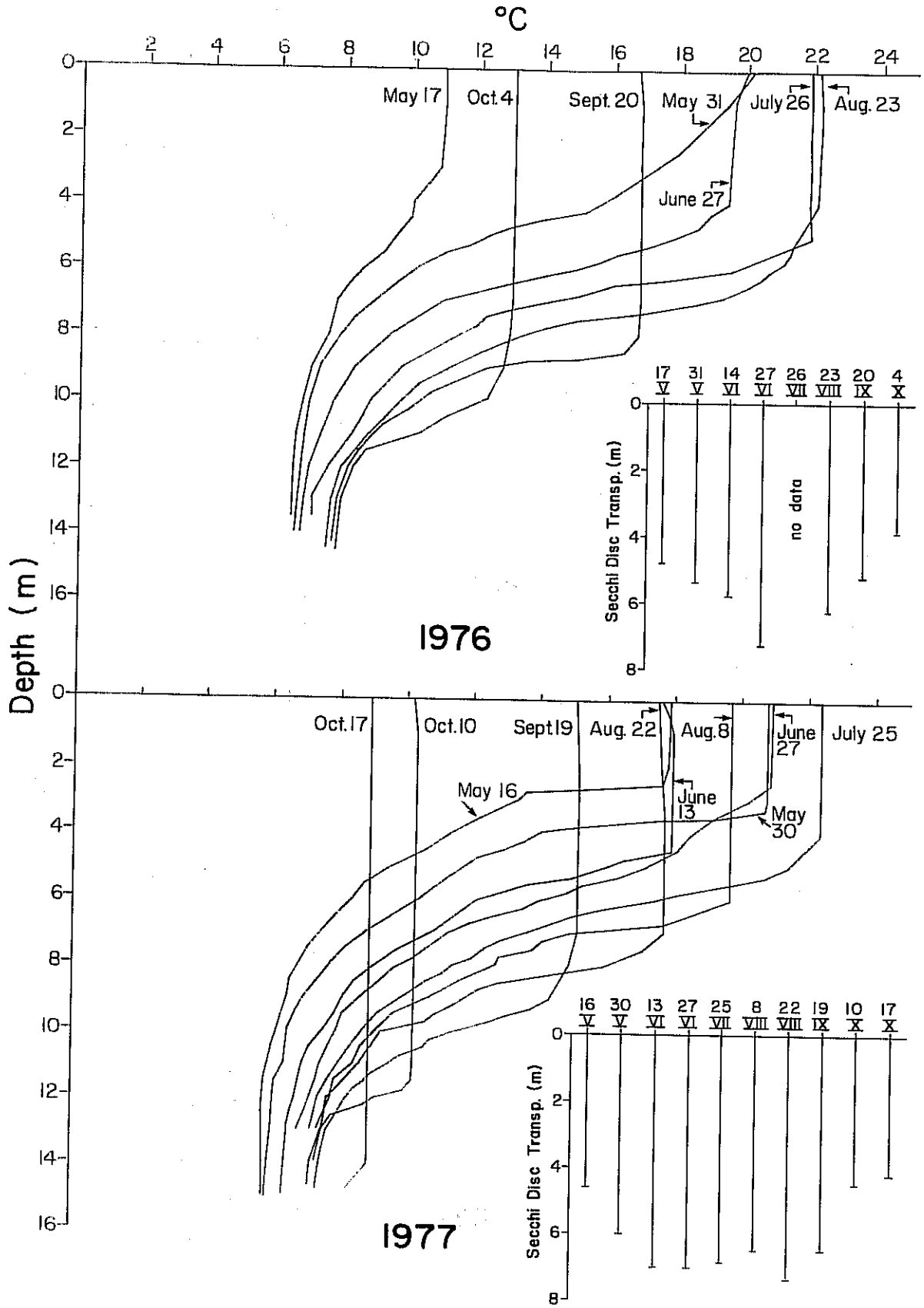

FIGURE 1. CONT'D.

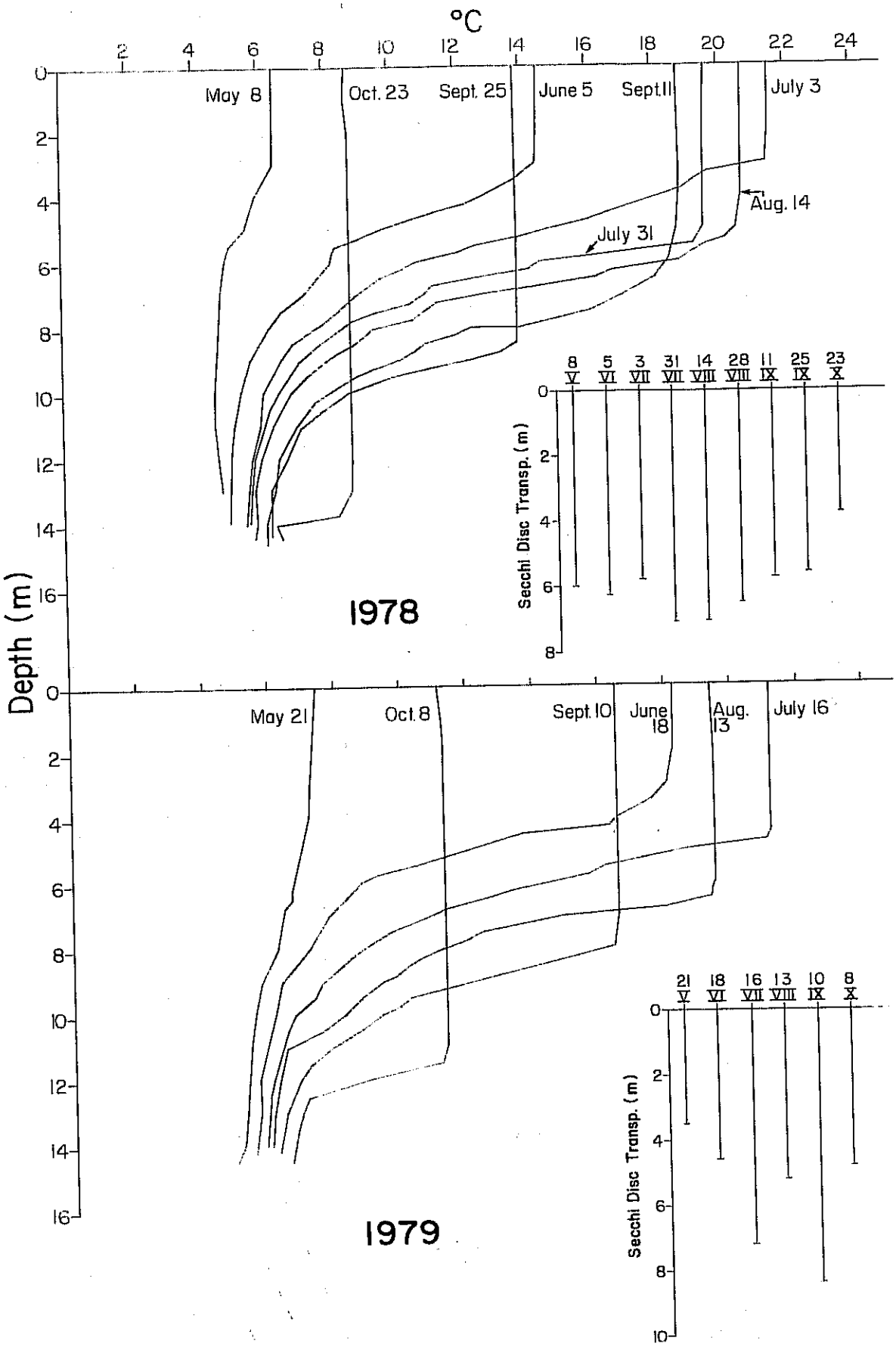

FIGURE 1. CONT'D.

APPENDIX 1

Density as individuals m^{-3} of zooplankton species or life stages on each sampling date for the years 1974 to 1979. Density is shown for each sampling layer during periods of thermal stratification or for the entire water column during non-stratification. The depth limits of each sampling layer is included. The results of sampling the entire water column are shown in the "upper" column of the table. Dashes indicate no sample was taken; zeros indicate no animals were counted in the subsamples.

a. Cladocera

Daphnia galeata mendotae

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	732		1084
Jul 17	0- 4		4 -13	0		3228
Aug 14	0- 5		5 -12	310		2997
Sep 11	0- 7		7 -12	232		499
Oct 9	*0-12			192		
Nov 6	*0-13			66		
1975						
Jun 2	0- 2.5	---	---	387	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	513	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	103	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	1132	0
May 30	0- 3	3 - 6	6 -15	0	2829	0
Jun 13	0- 4.5	4.5 - 6	6 -15	0	1132	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	377	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	0	0
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	679	0
Sep 19	0- 9	9 -11	11 -14	189	0	0
Oct 10	0-10.5		10.5 -14	162		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	689	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	0	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	480	408	0
Oct 23	*0-13			235		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	0	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	153	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	471	0
Jul 30	0- 6	6 - 9.5	9.5 -14	0	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	0	0
Aug 27	0- 7.5	7.5 -11	11 -13	0	246	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	172		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	293	0	0
Oct 22	*0-13.5			128		

*Entire water column

Bosmina longirostris

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			66		
Jun 19	0- 4		4 -13	1777		3974
Jul 17	0- 4		4 -13	1087		423
Aug 14	0- 5		5 -12	5033		906
Sep 11	0- 7		7 -12	348		599
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	232	---	---
Jun 30	0- 2	---	---	407	---	---
Jul 28	0- 2	---	---	1209	---	---
Aug 25	0- 2	---	---	1593	---	---
Sep 22	0- 2	---	---	256	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	205	---	---
Jun 28	0- 2	---	---	571	---	---
Jul 26	0- 2	---	---	440	---	---
Aug 23	0- 2	---	---	4280	---	---
Sep 20	0- 2	---	---	923	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	679	0	0
May 30	0- 3	3 - 6	6 -15	1132	1697	0
Jun 13	0- 4.5	4.5 - 6	6 -15	754	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	566	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	3772	0	339
Aug 8	0- 6	6 - 9	9 -13	1415	1697	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	6564	0	0
Sep 19	0- 9	9 -11	11 -14	1328	849	0
Oct 10	0-10.5		10.5 -14	3718		0
Oct 17	*0-14			7881		
1978						
May 8	*0-13			275		
Jun 5	0- 3	3 - 5.5	5.5 -13	6503	5738	918
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	918	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	5471	765	6565
Sep 7	0- 5	5 -10	10 -13	689	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	2160	1020	510
Oct 23	*0-13			1962		
1979						
May 21	*0-14			61		
Jun 4	0- 3	3 - 6.5	6.5 -14	1148	109	0
Jun 18	0- 3.25	3.25- 7	7 -14	2472	510	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	483	459	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	1047	589	0
Jul 30	0- 6	6 - 9.5	9.5 -14	446	328	191
Aug 13	0- 6.5	6.5 -10.25	10.25-14	1059	204	102
Aug 27	0- 7.5	7.5 -11	11 -13	204	492	191
Sep 10	0- 8	8 -11.75	11.75-14	1291	918	680
Sep 24	0-10		10 -13	516		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	220	0	0
Oct 22	*0-13.5			1275		

*Entire water column

Diaphanosoma brachyurum

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	1672		685
Aug 14	0- 5		5 -12	1471		209
Sep 11	0- 7		7 -12	290		1099
Oct 9	*0-12			115		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	271	---	---
Jul 28	0- 2	---	---	439	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	205	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	225	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	679	0	0
May 30	0- 3	3 - 6	6 -15	566	0	377
Jun 13	0- 4.5	4.5 - 6	6 -15	754	2263	0
Jun 27	0- 3	3 - 7.5	7.5 -13	3395	6413	0
Jul 25	0- 4.5	4.5 - 8	8 -13	377	0	339
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	226	0	0
Sep 19	0- 9	9 -11	11 -14	0	0	1132
Oct 10	0-10.5		10.5 -14	0		485
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	689	230	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	2754	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	60	408	0
Oct 23	*0-13			39		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	204	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	805	306	128
Jul 16	0- 4.75	4.75- 8	8 -14.25	5154	6239	430
Jul 30	0- 6	6 - 9.5	9.5 -14	383	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	0	0
Aug 27	0- 7.5	7.5 -11	11 -13	102	0	0
Sep 10	0- 8	8 -11.75	11.75-14	323	230	510
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	73	0	0
Oct 22	*0-13.5			0		

*Entire water column

Holopedium gibberum

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			33		
Jun 19	0- 4		4 -13	0		106
Jul 17	0- 4		4 -13	0		0
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	0		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	155	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	513	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	1132	0
May 30	0- 3	3 - 6	6 -15	0	1697	0
Jun 13	0- 4.5	4.5 - 6	6 -15	0	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	377	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	0	0
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	0	0
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	3060	918	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	0	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	60	0	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	109	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	204	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	403	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	353	0
Jul 30	0- 6	6 - 9.5	9.5 -14	64	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	0	102
Aug 27	0- 7.5	7.5 -11	11 -13	459	0	0
Sep 10	0- 8	8 -11.75	11.75-14	215	230	170
Sep 24	0-10		10 -13	86		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	73	0	255
Oct 22	*0-13.5			0		

*Entire water column

b. Calanoid adults

c. Calanoid nauplii

d. Calanoid copepodids

e. Cyclopoid adults

f. Cyclopoid nauplii

g. Cyclopoid copepodids

Diaptomus minutus

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			1678		
Jun 19	0- 4		4 -13	627		596
Jul 17	0- 4		4 -13	251		53
Aug 14	0- 5		5 -12	697		70
Sep 11	0- 7		7 -12	58		200
Oct 9	*0-12			3496		
Nov 6	*0-13			7699		
1975						
Jun 2	0- 2.5	---	---	5188	---	---
Jun 30	0- 2	---	---	2575	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	425	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	4172	---	---
1976						
May 31	0- 2	---	---	6872	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	659	---	---
Aug 23	0- 2	---	---	2027	---	---
Sep 20	0- 2	---	---	154	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	8827	0	0
May 30	0- 3	3 - 6	6 -15	3961	2829	0
Jun 13	0- 4.5	4.5 - 6	6 -15	754	3395	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	1886	970	0
Aug 8	0- 6	6 - 9	9 -13	849	566	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	905	0	2910
Sep 19	0- 9	9 -11	11 -14	377	3395	0
Oct 10	0-10.5		10.5 -14	4365		0
Oct 17	*0-14			9215		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	689	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	0	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	480	408	0
Oct 23	*0-13			235		
1979						
May 21	*0-14			1107		
Jun 4	0- 3	3 - 6.5	6.5 -14	893	109	0
Jun 18	0- 3.25	3.25- 7	7 -14	5062	918	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	3705	1836	638
Jul 16	0- 4.75	4.75- 8	8 -14.25	1208	1295	143
Jul 30	0- 6	6 - 9.5	9.5 -14	1084	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	1324	0	306
Aug 27	0- 7.5	7.5 -11	11 -13	918	0	0
Sep 10	0- 8	8 -11.75	11.75-14	108	459	170
Sep 24	0-10		10 -13	603		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	6080	2295	765
Oct 22	*0-13.5			8416		

*Entire water column

Diaptomus siciliis

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			395		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	0		0
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	58		0
Oct 9	*0-12			1421		
Nov 6	*0-13			6239		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	1308	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	189
May 30	0- 3	3 - 6	6 -15	0	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	0	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	0	0
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	0	0
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	0	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	0	0	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	0	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	0	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	0	0
Aug 27	0- 7.5	7.5 -11	11 -13	0	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Epischura lacustris

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	314		163
Jul 17	0- 4		4 -13	0		53
Aug 14	0- 5		5 -12	0		70
Sep 11	0- 7		7 -12	0		0
Oct 9	*0-12			154		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	77	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	106	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	62	---	---
1976						
May 31	0- 2	---	---	103	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	0
May 30	0- 3	3 - 6	6 -15	0	566	189
Jun 13	0- 4.5	4.5 - 6	6 -15	377	0	531
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	309
Jul 25	0- 4.5	4.5 - 8	8 -13	0	0	0
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	0	970
Sep 19	0- 9	9 -11	11 -14	566	849	566
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			485		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	230	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	230	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	255	0
Sep 7	0- 5	5 -10	10 -13	0	459	0
Sep 25	0- 8.5	8.5 -11	11 -13	780	1632	0
Oct 23	*0-13			117		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	204	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	0	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	0	0
Aug 27	0- 7.5	7.5 -11	11 -13	0	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0		0
Sep 24	0-10		10 -13	0	0	0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0		
Oct 22	*0-13.5					

*Entire water column

Calanoida N1

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			3620		
Jun 19	0- 4		4 -13	1045		108
Jul 17	0- 4		4 -13	167		53
Aug 14	0- 5		5 -12	310		139
Sep 11	0- 7		7 -12	0		100
Oct 9	*0-12			38		
Nov 6	*0-13			33		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	678	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	3590	---	---
Jun 28	0- 2	---	---	286	---	---
Jul 26	0- 2	---	---	586	---	---
Aug 23	0- 2	---	---	1126	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	16975	1132	0
May 30	0- 3	3 - 6	6 -15	2263	566	0
Jun 13	0- 4.5	4.5 - 6	6 -15	377	0	398
Jun 27	0- 3	3 - 7.5	7.5 -13	566	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	1509	0	0
Aug 8	0- 6	6 - 9	9 -13	566	566	2971
Aug 22	0- 7.5	7.5 -10	10 -13.5	679	0	0
Sep 19	0- 9	9 -11	11 -14	189	849	0
Oct 10	0-10.5		10.5 -14	323		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			1530		
Jun 5	0- 3	3 - 5.5	5.5 -13	1148	459	0
Jul 3	0- 3	3 - 8	8 -13	1148	459	0
Jul 24	0- 5	5 -10	10 -13	459	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	1824	510	0
Sep 7	0- 5	5 -10	10 -13	0	918	0
Sep 25	0- 8.5	8.5 -11	11 -13	60	0	0
Oct 23	*0-13			39		
1979						
May 21	*0-14			1783		
Jun 4	0- 3	3 - 6.5	6.5 -14	2040	328	115
Jun 18	0- 3.25	3.25- 7	7 -14	2825	714	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	2255	765	255
Jul 16	0- 4.75	4.75- 8	8 -14.25	966	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	765	109	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	662	102	102
Aug 27	0- 7.5	7.5 -11	11 -13	408	1476	0
Sep 10	0- 8	8 -11.75	11.75-14	0	230	0
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Calanoida N2

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			4245		
Jun 19	0- 4		4 -13	941		379
Jul 17	0- 4		4 -13	1087		106
Aug 14	0- 5		5 -12	774		0
Sep 11	0- 7		7 -12	116		0
Oct 9	*0-12			0		
Nov 6	*0-13			33		
1975						
Jun 2	0- 2.5	---	---	232	---	---
Jun 30	0- 2	---	---	4337	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	637	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	6564	---	---
Jun 28	0- 2	---	---	857	---	---
Jul 26	0- 2	---	---	586	---	---
Aug 23	0- 2	---	---	2703	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	34628	0	0
May 30	0- 3	3 - 6	6 -15	4527	1132	0
Jun 13	0- 4.5	4.5 - 6	6 -15	3395	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	566	377	0
Jul 25	0- 4.5	4.5 - 8	8 -13	1132	485	1697
Aug 8	0- 6	6 - 9	9 -13	849	0	1273
Aug 22	0- 7.5	7.5 -10	10 -13.5	1132	0	0
Sep 19	0- 9	9 -11	11 -14	189	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			3100		
Jun 5	0- 3	3 - 5.5	5.5 -13	1913	689	0
Jul 3	0- 3	3 - 8	8 -13	2295	0	0
Jul 24	0- 5	5 -10	10 -13	2066	0	383
Aug 14	0- 5	5 - 9.5	9.5 -13	1658	1530	328
Sep 7	0- 5	5 -10	10 -13	459	230	0
Sep 25	0- 8.5	8.5 -11	11 -13	60	0	0
Oct 23	*0-13			39		
1979						
May 21	*0-14			2828		
Jun 4	0- 3	3 - 6.5	6.5 -14	1403	219	0
Jun 18	0- 3.25	3.25- 7	7 -14	4120	918	55
Jul 2	0- 4.75	4.75- 7.25	7.25-14	8134	918	638
Jul 16	0- 4.75	4.75- 8	8 -14.25	1611	118	0
Jul 30	0- 6	6 - 9.5	9.5 -14	1339	219	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	662	204	306
Aug 27	0- 7.5	7.5 -11	11 -13	357	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			128		

*Entire water column

Calanoida N3

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			3949		
Jun 19	0- 4		4 -13	209		325
Jul 17	0- 4		4 -13	84		0
Aug 14	0- 5		5 -12	77		0
Sep 11	0- 7		7 -12	0		0
Oct 9	*0-12			0		
Nov 6	*0-13			00		
1975						
Jun 2	0- 2.5	---	---	542	---	---
Jun 30	0- 2	---	---	3117	---	---
Jul 28	0- 2	---	---	220	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	7179	---	---
Jun 28	0- 2	---	---	286	---	---
Jul 26	0- 2	---	---	366	---	---
Aug 23	0- 2	---	---	2027	---	---
Sep 20	0- 2	---	---	308	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	29876	0	0
May 30	0- 3	3 - 6	6 -15	1697	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	1132	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	566	0	309
Jul 25	0- 4.5	4.5 - 8	8 -13	3772	0	0
Aug 8	0- 6	6 - 9	9 -13	1415	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	679	0	485
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			7376		
Jun 5	0- 3	3 - 5.5	5.5 -13	6503	1836	689
Jul 3	0- 3	3 - 8	8 -13	1148	230	0
Jul 24	0- 5	5 -10	10 -13	689	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	2321	1020	0
Sep 7	0- 5	5 -10	10 -13	689	230	340
Sep 25	0- 8.5	8.5 -11	11 -13	60	0	255
Oct 23	*0-13			0		
1979						
May 21	*0-14			2090		
Jun 4	0- 3	3 - 6.5	6.5 -14	3953	219	0
Jun 18	0- 3.25	3.25- 7	7 -14	2825	612	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	5799	1989	510
Jul 16	0- 4.75	4.75- 8	8 -14.25	2175	589	430
Jul 30	0- 6	6 - 9.5	9.5 -14	1530	437	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	1192	102	306
Aug 27	0- 7.5	7.5 -11	11 -13	612	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	170
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Calanoida N4

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			4640		---
Jun 19	0- 4		4 -13	627		650
Jul 17	0- 4		4 -13	418		106
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	58		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	1471	---	---
Jun 30	0- 2	---	---	1355	---	---
Jul 28	0- 2	---	---	220	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	5026	---	---
Jun 28	0- 2	---	---	143	---	---
Jul 26	0- 2	---	---	73	---	---
Aug 23	0- 2	---	---	1577	---	---
Sep 20	0- 2	---	---	154	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	12222	13580	0
May 30	0- 3	3 - 6	6 -15	2263	0	566
Jun 13	0- 4.5	4.5 - 6	6 -15	1132	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	566	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	1132	0	0
Aug 8	0- 6	6 - 9	9 -13	849	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	1132	0	485
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			2040		
Jun 5	0- 3	3 - 5.5	5.5 -13	3826	2525	1607
Jul 3	0- 3	3 - 8	8 -13	2678	230	230
Jul 24	0- 5	5 -10	10 -13	230	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	995	765	0
Sep 7	0- 5	5 -10	10 -13	689	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	60	408	0
Oct 23	*0-13			39		
1979						
May 21	*0-14			4304		
Jun 4	0- 3	3 - 6.5	6.5 -14	2933	219	115
Jun 18	0- 3.25	3.25- 7	7 -14	1648	0	55
Jul 2	0- 4.75	4.75- 7.25	7.25-14	3946	6274	255
Jul 16	0- 4.75	4.75- 8	8 -14.25	2094	1295	0
Jul 30	0- 6	6 - 9.5	9.5 -14	383	219	191
Aug 13	0- 6.5	6.5 -10.25	10.25-14	1721	1122	1224
Aug 27	0- 7.5	7.5 -11	11 -13	255	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Calanoida N5

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			5726		
Jun 19	0- 4		4 -13	418		217
Jul 17	0- 4		4 -13	167		0
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	58		100
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	1936	---	---
Jun 30	0- 2	---	---	136	---	---
Jul 28	0- 2	---	---	440	---	---
Aug 25	0- 2	---	---	106	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	3487	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	225	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	5432	15843	0
May 30	0- 3	3 - 6	6 -15	3395	0	566
Jun 13	0- 4.5	4.5 - 6	6 -15	377	0	265
Jun 27	0- 3	3 - 7.5	7.5 -13	566	0	309
Jul 25	0- 4.5	4.5 - 8	8 -13	1132	0	0
Aug 8	0- 6	6 - 9	9 -13	283	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	453	0	485
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			314		
Jun 5	0- 3	3 - 5.5	5.5 -13	2295	2754	1148
Jul 3	0- 3	3 - 8	8 -13	765	689	0
Jul 24	0- 5	5 -10	10 -13	918	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	166	765	0
Sep 7	0- 5	5 -10	10 -13	1377	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	180	0	0
Oct 23	*0-13			39		
1979						
May 21	*0-14			7132		
Jun 4	0- 3	3 - 6.5	6.5 -14	3953	328	115
Jun 18	0- 3.25	3.25- 7	7 -14	1413	1020	55
Jul 2	0- 4.75	4.75- 7.25	7.25-14	1611	5815	383
Jul 16	0- 4.75	4.75- 8	8 -14.25	805	589	143
Jul 30	0- 6	6 - 9.5	9.5 -14	255	547	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	1059	102	408
Aug 27	0- 7.5	7.5 -11	11 -13	51	246	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	86		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Calanoida N6

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			10300		
Jun 19	0- 4		4 -13	523		542
Jul 17	0- 4		4 -13	251		53
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	0		100
Oct 9	*0-12			115		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	5188	---	---
Jun 30	0- 2	---	---	678	---	---
Jul 28	0- 2	---	---	1538	---	---
Aug 25	0- 2	---	---	106	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	6154	---	---
Jun 28	0- 2	---	---	286	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	451	---	---
Sep 20	0- 2	---	---	0	---	--
1977						
May 16	0- 2.5	2.5 - 4	4 -13	16296	3395	0
May 30	0- 3	3 - 6	6 -15	3961	0	377
Jun 13	0- 4.5	4.5 - 6	6 -15	754	7922	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	485	0
Aug 8	0- 6	6 - 9	9 -13	283	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	226	1358	0
Sep 19	0- 9	9 -11	11 -14	189	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			39		
Jun 5	0- 3	3 - 5.5	5.5 -13	7269	3213	1148
Jul 3	0- 3	3 - 8	8 -13	1148	459	230
Jul 24	0- 5	5 -10	10 -13	230	0	765
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	459	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	180	0	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			799		
Jun 4	0- 3	3 - 6.5	6.5 -14	2670	109	115
Jun 18	0- 3.25	3.25- 7	7 -14	2119	510	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	2094	2448	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	644	589	143
Jul 30	0- 6	6 - 9.5	9.5 -14	574	109	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	132	102	102
Aug 27	0- 7.5	7.5 -11	11 -13	51	0	191
Sep 10	0- 8	8 -11.75	11.75-14	108	0	0
Sep 24	0-10		10 -13	86		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Calanoida C1

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			6088		
Jun 19	0- 4		4 -13	2613		705
Jul 17	0- 4		4 -13	167		53
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	58		100
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	13240	---	---
Jun 30	0- 2	---	---	542	---	---
Jul 28	0- 2	---	---	1209	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	9231	---	---
Jun 28	0- 2	---	---	286	---	---
Jul 26	0- 2	---	---	147	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	19691	0	189
May 30	0- 3	3 - 6	6 -15	7356	5658	0
Jun 13	0- 4.5	4.5 - 6	6 -15	2641	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	1132	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	377	0	0
Aug 8	0- 6	6 - 9	9 -13	283	0	849
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	1358	0
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	162		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	5738	1607	1148
Jul 3	0- 3	3 - 8	8 -13	2678	689	230
Jul 24	0- 5	5 -10	10 -13	1836	689	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	1377	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	180	0	0
Oct 23	*0-13			39		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	1658	219	115
Jun 18	0- 3.25	3.25- 7	7 -14	2236	714	55
Jul 2	0- 4.75	4.75- 7.25	7.25-14	2658	1530	128
Jul 16	0- 4.75	4.75- 8	8 -14.25	966	1295	0
Jul 30	0- 6	6 - 9.5	9.5 -14	1275	437	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	132	0	102
Aug 27	0- 7.5	7.5 -11	11 -13	408	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Calanoida C2

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			954		
Jun 19	0- 4		4 -13	1359		1572
Jul 17	0- 4		4 -13	167		106
Aug 14	0- 5		5 -12	77		0
Sep 11	0- 7		7 -12	58		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	14479	---	---
Jun 30	0- 2	---	---	2846	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	18769	---	---
Jun 28	0- 2	---	---	2429	---	---
Jul 26	0- 2	---	---	220	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	30555	0	377
May 30	0- 3	3 - 6	6 -15	6224	5092	0
Jun 13	0- 4.5	4.5 - 6	6 -15	3395	0	531
Jun 27	0- 3	3 - 7.5	7.5 -13	566	1886	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	1940	0
Aug 8	0- 6	6 - 9	9 -13	0	0	849
Aug 22	0- 7.5	7.5 -10	10 -13.5	453	0	485
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	9946	5968	918
Jul 3	0- 3	3 - 8	8 -13	2678	459	918
Jul 24	0- 5	5 -10	10 -13	3213	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	459	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	240	0	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	3571	874	0
Jun 18	0- 3.25	3.25- 7	7 -14	5297	1224	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	2013	1989	128
Jul 16	0- 4.75	4.75- 8	8 -14.25	1128	2001	0
Jul 30	0- 6	6 - 9.5	9.5 -14	383	109	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	795	102	102
Aug 27	0- 7.5	7.5 -11	11 -13	306	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	170
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Calanoida C3

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	1672		12141
Jul 17	0- 4		4 -13	84		1111
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	232		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	7511	---	---
Jun 30	0- 2	---	---	17890	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	7795	---	---
Jun 28	0- 2	---	---	5857	---	---
Jul 26	0- 2	---	---	147	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	154	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	4753	0	1320
May 30	0- 3	3 - 6	6 -15	13014	23199	0
Jun 13	0- 4.5	4.5 - 6	6 -15	7167	15843	1593
Jun 27	0- 3	3 - 7.5	7.5 -13	566	7922	3395
Jul 25	0- 4.5	4.5 - 8	8 -13	0	1940	679
Aug 8	0- 6	6 - 9	9 -13	283	566	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	679	0	0
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	14537	10788	2984
Jul 3	0- 3	3 - 8	8 -13	24101	8034	1148
Jul 24	0- 5	5 -10	10 -13	230	230	0
Aug 14	0- 5	5 - 9.5	9.5 -13	166	255	0
Sep 7	0- 5	5 -10	10 -13	459	230	0
Sep 25	0- 8.5	8.5 -11	11 -13	480	204	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	3188	984	115
Jun 18	0- 3.25	3.25- 7	7 -14	5415	1938	55
Jul 2	0- 4.75	4.75- 7.25	7.25-14	2960	6886	128
Jul 16	0- 4.75	4.75- 8	8 -14.25	3705	3884	430
Jul 30	0- 6	6 - 9.5	9.5 -14	2295	2405	191
Aug 13	0- 6.5	6.5 -10.25	10.25-14	2119	102	102
Aug 27	0- 7.5	7.5 -11	11 -13	561	0	0
Sep 10	0- 8	8 -11.75	11.75-14	215	0	0
Sep 24	0-10		10 -13	86		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	73	0	0
Oct 22	*0-13.5			0		

*Entire water column

Calanoida C4

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	523		8293
Jul 17	0- 4		4 -13	84		20899
Aug 14	0- 5		5 -12	3020		8780
Sep 11	0- 7		7 -12	116		2297
Oct 9	*0-12			154		
Nov 6	*0-13			33		
1975						
Jun 2	0- 2.5	---	---	232	---	---
Jun 30	0- 2	---	---	7590	---	---
Jul 28	0- 2	---	---	220	---	---
Aug 25	0- 2	---	---	1168	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	103	---	---
Jun 28	0- 2	---	---	7571	---	---
Jul 26	0- 2	---	---	366	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	154	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	0
May 30	0- 3	3 - 6	6 -15	1697	9619	0
Jun 13	0- 4.5	4.5 - 6	6 -15	6790	23765	7167
Jun 27	0- 3	3 - 7.5	7.5 -13	566	15843	6790
Jul 25	0- 4.5	4.5 - 8	8 -13	1132	20370	18333
Aug 8	0- 6	6 - 9	9 -13	283	8487	4668
Aug 22	0- 7.5	7.5 -10	10 -13.5	1584	0	6305
Sep 19	0- 9	9 -11	11 -14	0	1697	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	1148	230	230
Jul 3	0- 3	3 - 8	8 -13	19510	18822	1377
Jul 24	0- 5	5 -10	10 -13	3213	10788	0
Aug 14	0- 5	5 - 9.5	9.5 -13	663	5356	328
Sep 7	0- 5	5 -10	10 -13	918	230	0
Sep 25	0- 8.5	8.5 -11	11 -13	1260	1020	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	510	109	0
Jun 18	0- 3.25	3.25- 7	7 -14	3060	816	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	966	5662	510
Jul 16	0- 4.75	4.75- 8	8 -14.25	2336	4591	430
Jul 30	0- 6	6 - 9.5	9.5 -14	8544	11039	383
Aug 13	0- 6.5	6.5 -10.25	10.25-14	8343	2448	3162
Aug 27	0- 7.5	7.5 -11	11 -13	7396	1476	0
Sep 10	0- 8	8 -11.75	11.75-14	753	689	680
Sep 24	0-10		10 -13	172		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	293	0	0
Oct 22	*0-13.5			0		

*Entire water column

Calanoida C5

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	105		217
Jul 17	0- 4		4 -13	0		3280
Aug 14	0- 5		5 -12	1781		16376
Sep 11	0- 7		7 -12	4878		17679
Oct 9	*0-12			7491		
Nov 6	*0-13			33		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	542	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	2018	---	---
Sep 22	0- 2	---	---	6538	---	---
Oct 20	0- 2	---	---	311	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	429	---	---
Jul 26	0- 2	---	---	220	---	---
Aug 23	0- 2	---	---	225	---	---
Sep 20	0- 2	---	---	462	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	0
May 30	0- 3	3 - 6	6 -15	0	566	0
Jun 13	0- 4.5	4.5 - 6	6 -15	754	1132	398
Jun 27	0- 3	3 - 7.5	7.5 -13	0	754	309
Jul 25	0- 4.5	4.5 - 8	8 -13	377	3880	8827
Aug 8	0- 6	6 - 9	9 -13	849	7356	13155
Aug 22	0- 7.5	7.5 -10	10 -13.5	1811	19691	20370
Sep 19	0- 9	9 -11	11 -14	5281	31403	0
Oct 10	0-10.5		10.5 -14	162		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	0
Jul 3	0- 3	3 - 8	8 -13	2678	459	689
Jul 24	0- 5	5 -10	10 -13	230	918	0
Aug 14	0- 5	5 - 9.5	9.5 -13	829	12497	0
Sep 7	0- 5	5 -10	10 -13	459	8952	340
Sep 25	0- 8.5	8.5 -11	11 -13	5881	2652	510
Oct 23	*0-13			157		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	128	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	3414	714	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	886	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	242	118	0
Jul 30	0- 6	6 - 9.5	9.5 -14	1148	656	383
Aug 13	0- 6.5	6.5 -10.25	10.25-14	1854	306	612
Aug 27	0- 7.5	7.5 -11	11 -13	6223	2705	191
Sep 10	0- 8	8 -11.75	11.75-14	10759	7345	7141
Sep 24	0-10		10 -13	10759		128
Oct 8	0-11.75	11.75-12.5	12.5 -14	2051	3443	765
Oct 22	*0-13.5			0		

*Entire water column

Cyclops bicuspidatus thom.

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			494		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	84		952
Aug 14	0- 5		5 -12	0		4530
Sep 11	0- 7		7 -12	0		999
Oct 9	*0-12			1345		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	62	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	377
May 30	0- 3	3 - 6	6 -15	0	0	1320
Jun 13	0- 4.5	4.5 - 6	6 -15	0	0	3584
Jun 27	0- 3	3 - 7.5	7.5 -13	0	754	10493
Jul 25	0- 4.5	4.5 - 8	8 -13	0	1940	20030
Aug 8	0- 6	6 - 9	9 -13	283	0	14429
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	679	24735
Sep 19	0- 9	9 -11	11 -14	1132	5092	1697
Oct 10	0-10.5		10.5 -14	485		1940
Oct 17	*0-14			121		
1978						
May 8	*0-13			745		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	459	918
Jul 3	0- 3	3 - 8	8 -13	0	1377	1607
Jul 24	0- 5	5 -10	10 -13	0	5279	2295
Aug 14	0- 5	5 - 9.5	9.5 -13	0	5101	2951
Sep 7	0- 5	5 -10	10 -13	0	2754	170
Sep 25	0- 8.5	8.5 -11	11 -13	60	7141	3571
Oct 23	*0-13			510		
1979						
May 21	*0-14			1906		
Jun 4	0- 3	3 - 6.5	6.5 -14	255	547	803
Jun 18	0- 3.25	3.25- 7	7 -14	0	102	765
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	306	383
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	1059	2869
Jul 30	0- 6	6 - 9.5	9.5 -14	0	7651	7077
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	7447	6529
Aug 27	0- 7.5	7.5 -11	11 -13	153	11805	12050
Sep 10	0- 8	8 -11.75	11.75-14	0	10099	6631
Sep 24	0-10		10 -13	258		4718
Oct 8	0-11.75	11.75-12.5	12.5 -14	2637	8034	2295
Oct 22	*0-13.5			1403		

*Entire water column

Mesocyclops edax

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			66		
Jun 19	0- 4		4 -13	209		271
Jul 17	0- 4		4 -13	251		265
Aug 14	0- 5		5 -12	77		70
Sep 11	0- 7		7 -12	58		200
Oct 9	*0-12			77		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	128	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	103	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	73	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	2057	0	377
May 30	0- 3	3 - 6	6 -15	1697	1132	0
Jun 13	0- 4.5	4.5 - 6	6 -15	0	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	485	0
Aug 8	0- 6	6 - 9	9 -13	566	0	424
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	5432	2910
Sep 19	0- 9	9 -11	11 -14	377	5092	0
Oct 10	0-10.5		10.5 -14	162		2425
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	383	0	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	166	0	0
Sep 7	0- 5	5 -10	10 -13	689	689	0
Sep 25	0- 8.5	8.5 -11	11 -13	60	2244	1275
Oct 23	*0-13			0		
1979						
May 21	*0-14			184		
Jun 4	0- 3	3 - 6.5	6.5 -14	383	109	0
Jun 18	0- 3.25	3.25- 7	7 -14	118	204	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	403	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	161	118	0
Jul 30	0- 6	6 - 9.5	9.5 -14	446	109	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	102	102
Aug 27	0- 7.5	7.5 -11	11 -13	459	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	0		255
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	2295	0
Oct 22	*0-13.5			0		

*Entire water column

Propagolopa proximus max.

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			99		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	84		0
Aug 14	0- 5		5 -12	929		70
Sep 11	0- 7		7 -12	174		0
Oct 9	*0-12			154		
Nov 6	*0-13			133		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	330	---	---
Aug 25	0- 2	---	---	212	---	---
Sep 22	0- 2	---	---	385	---	---
Oct 20	0- 2	---	---	62	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	73	---	---
Aug 23	0- 2	---	---	1352	---	---
Sep 20	0- 2	---	---	1385	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	679	0	0
May 30	0- 3	3 - 6	6 -15	0	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	377	0	133
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	309
Jul 25	0- 4.5	4.5 - 8	8 -13	0	0	0
Aug 8	0- 6	6 - 9	9 -13	283	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	1584	0	1940
Sep 19	0- 9	9 -11	11 -14	943	10185	0
Oct 10	0-10.5		10.5 -14	2748		0
Oct 17	*0-14			1091		
1978						
May 8	*0-13			510		
Jun 5	0- 3	3 - 5.5	5.5 -13	3060	689	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	918	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	332	255	0
Sep 7	0- 5	5 -10	10 -13	459	230	170
Sep 25	0- 8.5	8.5 -11	11 -13	3360	3264	510
Oct 23	*0-13			1138		
1979						
May 21	*0-14			61		
Jun 4	0- 3	3 - 6.5	6.5 -14	1403	219	0
Jun 18	0- 3.25	3.25- 7	7 -14	353	204	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	81	153	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	242	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	191	109	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	265	102	102
Aug 27	0- 7.5	7.5 -11	11 -13	153	0	0
Sep 10	0- 8	8 -11.75	11.75-14	108	0	170
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	659	1148	510
Oct 22	*0-13.5			0		

*Entire water column

Cyclopoida N1

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			1481		
Jun 19	0- 4		4 -13	523		542
Jul 17	0- 4		4 -13	1923		582
Aug 14	0- 5		5 -12	1316		557
Sep 11	0- 7		7 -12	116		499
Oct 9	*0-12			4533		
Nov 6	*0-13			465		
1975						
Jun 2	0- 2.5	---	---	310	---	---
Jun 30	0- 2	---	---	542	---	---
Jul 28	0- 2	---	---	330	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	128	---	---
Oct 20	0- 2	---	---	996	---	---
1976						
May 31	0- 2	---	---	1128	---	---
Jun 28	0- 2	---	---	429	---	---
Jul 26	0- 2	---	---	879	---	---
Aug 23	0- 2	---	---	451	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	754
May 30	0- 3	3 - 6	6 -15	3961	0	754
Jun 13	0- 4.5	4.5 - 6	6 -15	0	3395	398
Jun 27	0- 3	3 - 7.5	7.5 -13	2263	0	1235
Jul 25	0- 4.5	4.5 - 8	8 -13	1509	0	3734
Aug 8	0- 6	6 - 9	9 -13	283	3395	39466
Aug 22	0- 7.5	7.5 -10	10 -13.5	226	5432	62079
Sep 19	0- 9	9 -11	11 -14	943	18672	0
Oct 10	0-10.5		10.5 -14	647		0
Oct 17	*0-14			121		
1978						
May 8	*0-13			1334		
Jun 5	0- 3	3 - 5.5	5.5 -13	2295	1607	918
Jul 3	0- 3	3 - 8	8 -13	383	459	230
Jul 24	0- 5	5 -10	10 -13	2525	230	765
Aug 14	0- 5	5 - 9.5	9.5 -13	497	5101	2623
Sep 7	0- 5	5 -10	10 -13	0	10559	680
Sep 25	0- 8.5	8.5 -11	11 -13	120	14690	510
Oct 23	*0-13			2236		
1979						
May 21	*0-14			1230		
Jun 4	0- 3	3 - 6.5	6.5 -14	2805	3060	230
Jun 18	0- 3.25	3.25- 7	7 -14	1413	1530	383
Jul 2	0- 4.75	4.75- 7.25	7.25-14	1128	306	255
Jul 16	0- 4.75	4.75- 8	8 -14.25	644	942	143
Jul 30	0- 6	6 - 9.5	9.5 -14	1530	1093	383
Aug 13	0- 6.5	6.5 -10.25	10.25-14	265	510	306
Aug 27	0- 7.5	7.5 -11	11 -13	663	4427	2104
Sep 10	0- 8	8 -11.75	11.75-14	108	14231	14962
Sep 24	0-10		10 -13	4218		10074
Oct 8	0-11.75	11.75-12.5	12.5 -14	6739	25249	3060
Oct 22	*0-13.5			3959		

*Entire water column

Cyclopoida N2

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			2402		
Jun 19	0- 4		4 -13	209		217
Jul 17	0- 4		4 -13	920		212
Aug 14	0- 5		5 -12	1239		906
Sep 11	0- 7		7 -12	0		499
Oct 9	*0-12			5302		
Nov 6	*0-13			2489		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	110	---	---
Aug 25	0- 2	---	---	425	---	---
Sep 22	0- 2	---	---	256	---	---
Oct 20	0- 2	---	---	1930	---	---
1976						
May 31	0- 2	---	---	513	---	---
Jun 28	0- 2	---	---	286	---	---
Jul 26	0- 2	---	---	1245	---	---
Aug 23	0- 2	---	---	1126	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	1132	943
May 30	0- 3	3 - 6	6 -15	6224	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	754	3395	0
Jun 27	0- 3	3 - 7.5	7.5 -13	1697	1886	0
Jul 25	0- 4.5	4.5 - 8	8 -13	754	2910	2037
Aug 8	0- 6	6 - 9	9 -13	1132	566	30979
Aug 22	0- 7.5	7.5 -10	10 -13.5	679	4074	174597
Sep 19	0- 9	9 -11	11 -14	189	42437	0
Oct 10	0-10.5		10.5 -14	1778		0
Oct 17	*0-14			606		
1978						
May 8	*0-13			1609		
Jun 5	0- 3	3 - 5.5	5.5 -13	6503	2066	3673
Jul 3	0- 3	3 - 8	8 -13	383	459	918
Jul 24	0- 5	5 -10	10 -13	2754	1377	0
Aug 14	0- 5	5 - 9.5	9.5 -13	1326	1741	1640
Sep 7	0- 5	5 -10	10 -13	0	31217	2210
Sep 25	0- 8.5	8.5 -11	11 -13	420	73451	8161
Oct 23	*0-13			2511		
1979						
May 21	*0-14			615		
Jun 4	0- 3	3 - 6.5	6.5 -14	128	5356	344
Jun 18	0- 3.25	3.25- 7	7 -14	2001	2346	820
Jul 2	0- 4.75	4.75- 7.25	7.25-14	2658	1377	383
Jul 16	0- 4.75	4.75- 8	8 -14.25	805	824	143
Jul 30	0- 6	6 - 9.5	9.5 -14	2742	1312	191
Aug 13	0- 6.5	6.5 -10.25	10.25-14	3178	1122	1428
Aug 27	0- 7.5	7.5 -11	11 -13	969	2459	1148
Sep 10	0- 8	8 -11.75	11.75-14	968	11247	14622
Sep 24	0-10		10 -13	1721		18490
Oct 8	0-11.75	11.75-12.5	12.5 -14	24321	135424	13007
Oct 22	*0-13.5			13644		

*Entire water column

Cyclopoida N3

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			2106		
Jun 19	0- 4		4 -13	1254		434
Jul 17	0- 4		4 -13	2843		476
Aug 14	0- 5		5 -12	2555		697
Sep 11	0- 7		7 -12	348		200
Oct 9	*0-12			5109		
Nov 6	*0-13			18483		
1975						
Jun 2	0- 2.5	---	---	542	---	---
Jun 30	0- 2	---	---	407	---	---
Jul 28	0- 2	---	---	549	---	---
Aug 25	0- 2	---	---	1381	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	4546	---	---
1976						
May 31	0- 2	---	---	1538	---	---
Jun 28	0- 2	---	---	1857	---	---
Jul 26	0- 2	---	---	2564	---	---
Aug 23	0- 2	---	---	1577	---	---
Sep 20	0- 2	---	---	154	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	679	0	1697
May 30	0- 3	3 - 6	6 -15	5658	0	1320
Jun 13	0- 4.5	4.5 - 6	6 -15	754	5658	1327
Jun 27	0- 3	3 - 7.5	7.5 -13	1132	3018	0
Jul 25	0- 4.5	4.5 - 8	8 -13	2641	3395	4074
Aug 8	0- 6	6 - 9	9 -13	849	1697	43286
Aug 22	0- 7.5	7.5 -10	10 -13.5	905	6111	97483
Sep 19	0- 9	9 -11	11 -14	377	84074	0
Oct 10	0-10.5		10.5 -14	3718		0
Oct 17	*0-14			606		
1978						
May 8	*0-13			3060		
Jun 5	0- 3	3 - 5.5	5.5 -13	6886	2525	7575
Jul 3	0- 3	3 - 8	8 -13	1148	918	2984
Jul 24	0- 5	5 -10	10 -13	1377	1836	0
Aug 14	0- 5	5 - 9.5	9.5 -13	1326	7396	1312
Sep 7	0- 5	5 -10	10 -13	0	40432	3400
Sep 25	0- 8.5	8.5 -11	11 -13	540	118541	24484
Oct 23	*0-13			3806		
1979						
May 21	*0-14			1168		
Jun 4	0- 3	3 - 6.5	6.5 -14	383	8963	344
Jun 18	0- 3.25	3.25- 7	7 -14	471	1632	820
Jul 2	0- 4.75	4.75- 7.25	7.25-14	2013	765	893
Jul 16	0- 4.75	4.75- 8	8 -14.25	322	0	143
Jul 30	0- 6	6 - 9.5	9.5 -14	1721	984	383
Aug 13	0- 6.5	6.5 -10.25	10.25-14	1324	714	1224
Aug 27	0- 7.5	7.5 -11	11 -13	1275	4919	1339
Sep 10	0- 8	8 -11.75	11.75-14	430	5968	4251
Sep 24	0-10		10 -13	516		5866
Oct 8	0-11.75	11.75-12.5	12.5 -14	12527	97552	8161
Oct 22	*0-13.5			17853		

*Entire water column

Cyclopoida N4

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			2896		
Jun 19	0- 4		4 -13	2091		1030
Jul 17	0- 4		4 -13	2258		952
Aug 14	0- 5		5 -12	2245		1115
Sep 11	0- 7		7 -12	581		499
Oct 9	*0-12			154		
Nov 6	*0-13			1062		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	407	---	---
Jul 28	0- 2	---	---	879	---	---
Aug 25	0- 2	---	---	319	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	374	---	---
1976						
May 31	0- 2	---	---	103	---	---
Jun 28	0- 2	---	---	2143	---	---
Jul 26	0- 2	---	---	2637	---	---
Aug 23	0- 2	---	---	2929	---	---
Sep 20	0- 2	---	---	308	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	3018
May 30	0- 3	3 - 6	6 -15	2829	1132	0
Jun 13	0- 4.5	4.5 - 6	6 -15	2263	1132	664
Jun 27	0- 3	3 - 7.5	7.5 -13	2263	754	0
Jul 25	0- 4.5	4.5 - 8	8 -13	3018	0	1358
Aug 8	0- 6	6 - 9	9 -13	849	0	8063
Aug 22	0- 7.5	7.5 -10	10 -13.5	1811	4074	17945
Sep 19	0- 9	9 -11	11 -14	189	67899	0
Oct 10	0-10.5		10.5 -14	1455		0
Oct 17	*0-14			1455		
1978						
May 8	*0-13			8004		
Jun 5	0- 3	3 - 5.5	5.5 -13	3443	1377	8493
Jul 3	0- 3	3 - 8	8 -13	0	2754	10099
Jul 24	0- 5	5 -10	10 -13	1607	6886	1913
Aug 14	0- 5	5 - 9.5	9.5 -13	2984	8416	328
Sep 7	0- 5	5 -10	10 -13	459	11247	340
Sep 25	0- 8.5	8.5 -11	11 -13	660	47743	14282
Oct 23	*0-13			3727		
1979						
May 21	*0-14			369		
Jun 4	0- 3	3 - 6.5	6.5 -14	510	7105	459
Jun 18	0- 3.25	3.25- 7	7 -14	471	2244	1585
Jul 2	0- 4.75	4.75- 7.25	7.25-14	3383	1836	1658
Jul 16	0- 4.75	4.75- 8	8 -14.25	1691	2119	1291
Jul 30	0- 6	6 - 9.5	9.5 -14	1594	1858	383
Aug 13	0- 6.5	6.5 -10.25	10.25-14	2913	2958	1020
Aug 27	0- 7.5	7.5 -11	11 -13	1071	2951	574
Sep 10	0- 8	8 -11.75	11.75-14	430	1607	2890
Sep 24	0-10		10 -13	516		1913
Oct 8	0-11.75	11.75-12.5	12.5 -14	6153	33282	3060
Oct 22	*0-13.5			7906		

*Entire water column

Cyclopoida N5

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			2236		
Jun 19	0- 4		4 -13	1986		1734
Jul 17	0- 4		4 -13	1672		106
Aug 14	0- 5		5 -12	929		1045
Sep 11	0- 7		7 -12	465		100
Oct 9	*0-12			38		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	77	---	---
Jun 30	0- 2	---	---	271	---	---
Jul 28	0- 2	---	---	1099	---	---
Aug 25	0- 2	---	---	1168	---	---
Sep 22	0- 2	---	---	256	---	---
Oct 20	0- 2	---	---	125	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	286	---	---
Jul 26	0- 2	---	---	1026	---	---
Aug 23	0- 2	---	---	676	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	1132	2452
May 30	0- 3	3 - 6	6 -15	3961	566	0
Jun 13	0- 4.5	4.5 - 6	6 -15	2263	9053	0
Jun 27	0- 3	3 - 7.5	7.5 -13	1697	0	1235
Jul 25	0- 4.5	4.5 - 8	8 -13	1886	0	2037
Aug 8	0- 6	6 - 9	9 -13	1697	0	1697
Aug 22	0- 7.5	7.5 -10	10 -13.5	1132	1358	6790
Sep 19	0- 9	9 -11	11 -14	0	16975	0
Oct 10	0-10.5		10.5 -14	2425		0
Oct 17	*0-14			2304		
1978						
May 8	*0-13			6631		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	8952
Jul 3	0- 3	3 - 8	8 -13	765	1148	7345
Jul 24	0- 5	5 -10	10 -13	459	16756	1913
Aug 14	0- 5	5 - 9.5	9.5 -13	1658	5866	2623
Sep 7	0- 5	5 -10	10 -13	1836	2295	170
Sep 25	0- 8.5	8.5 -11	11 -13	780	8365	1530
Oct 23	*0-13			1413		
1979						
May 21	*0-14			676		
Jun 4	0- 3	3 - 6.5	6.5 -14	510	3716	230
Jun 18	0- 3.25	3.25- 7	7 -14	0	510	1202
Jul 2	0- 4.75	4.75- 7.25	7.25-14	966	1224	1403
Jul 16	0- 4.75	4.75- 8	8 -14.25	161	235	3156
Jul 30	0- 6	6 - 9.5	9.5 -14	128	2951	1530
Aug 13	0- 6.5	6.5 -10.25	10.25-14	662	1020	408
Aug 27	0- 7.5	7.5 -11	11 -13	408	4919	1339
Sep 10	0- 8	8 -11.75	11.75-14	861	2295	1700
Sep 24	0-10		10 -13	86		383
Oct 8	0-11.75	11.75-12.5	12.5 -14	2784	18363	2295
Oct 22	*0-13.5			4336		

*Entire water column

Cyclopoida NG

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			2106		
Jun 19	0- 4		4 -13	1672		921
Jul 17	0- 4		4 -13	753		423
Aug 14	0- 5		5 -12	232		209
Sep 11	0- 7		7 -12	523		999
Oct 9	*0-12			192		
Nov 6	*0-13			3		
1975						
Jun 2	0- 2.5	---	---	155	---	---
Jun 30	0- 2	---	---	136	---	---
Jul 28	0- 2	---	---	110	---	---
Aug 25	0- 2	---	---	212	---	---
Sep 22	0- 2	---	---	641	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	1026	---	---
Aug 23	0- 2	---	---	901	---	---
Sep 20	0- 2	---	---	308	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	1132	1509
May 30	0- 3	3 - 6	6 -15	3395	0	754
Jun 13	0- 4.5	4.5 - 6	6 -15	1509	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	1132	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	754	0	679
Aug 8	0- 6	6 - 9	9 -13	1132	1132	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	1811	0	4850
Sep 19	0- 9	9 -11	11 -14	377	0	566
Oct 10	0-10.5		10.5 -14	647		0
Oct 17	*0-14			364		
1978						
May 8	*0-13			3257		
Jun 5	0- 3	3 - 5.5	5.5 -13	1148	1146	5279
Jul 3	0- 3	3 - 8	8 -13	383	1148	459
Jul 24	0- 5	5 -10	10 -13	230	1377	383
Aug 14	0- 5	5 - 9.5	9.5 -13	2984	5356	984
Sep 7	0- 5	5 -10	10 -13	1607	1377	340
Sep 25	0- 8.5	8.5 -11	11 -13	540	816	255
Oct 23	*0-13			39		
1979						
May 21	*0-14			922		
Jun 4	0- 3	3 - 6.5	6.5 -14	893	3279	115
Jun 18	0- 3.25	3.25- 7	7 -14	0	918	2077
Jul 2	0- 4.75	4.75- 7.25	7.25-14	2094	306	1020
Jul 16	0- 4.75	4.75- 8	8 -14.25	403	118	1148
Jul 30	0- 6	6 - 9.5	9.5 -14	128	874	765
Aug 13	0- 6.5	6.5 -10.25	10.25-14	530	306	408
Aug 27	0- 7.5	7.5 -11	11 -13	816	1476	574
Sep 10	0- 8	8 -11.75	11.75-14	323	1148	340
Sep 24	0-10		10 -13	258		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	513	2295	255
Oct 22	*0-13.5			1020		

*Entire water column

Cyclopoida C1

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			7667		
Jun 19	0- 4		4 -13	0		1030
Jul 17	0- 4		4 -13	1087		423
Aug 14	0- 5		5 -12	1394		209
Sep 11	0- 7		7 -12	639		200
Oct 9	*0-12			77		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	310	---	---
Jun 30	0- 2	---	---	407	---	---
Jul 28	0- 2	---	---	330	---	---
Aug 25	0- 2	---	---	744	---	---
Sep 22	0- 2	---	---	256	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	205	---	---
Jun 28	0- 2	---	---	571	---	---
Jul 26	0- 2	---	---	733	---	---
Aug 23	0- 2	---	---	1577	---	---
Sep 20	0- 2	---	---	308	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	6790	754
May 30	0- 3	3 - 6	6 -15	0	566	189
Jun 13	0- 4.5	4.5 - 6	6 -15	1886	6790	0
Jun 27	0- 3	3 - 7.5	7.5 -13	5092	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	377	0	339
Aug 8	0- 6	6 - 9	9 -13	1697	1132	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	3848	0	0
Sep 19	0- 9	9 -11	11 -14	189	3395	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			485		
1978						
May 8	*0-13			1059		
Jun 5	0- 3	3 - 5.5	5.5 -13	765	1607	3213
Jul 3	0- 3	3 - 8	8 -13	0	1148	1148
Jul 24	0- 5	5 -10	10 -13	1377	2984	0
Aug 14	0- 5	5 - 9.5	9.5 -13	1658	2296	1967
Sep 7	0- 5	5 -10	10 -13	689	2295	340
Sep 25	0- 8.5	8.5 -11	11 -13	1140	1020	255
Oct 23	*0-13			78		
1979						
May 21	*0-14			4611		
Jun 4	0- 3	3 - 6.5	6.5 -14	1530	2295	115
Jun 18	0- 3.25	3.25- 7	7 -14	118	1020	765
Jul 2	0- 4.75	4.75- 7.25	7.25-14	1128	612	1020
Jul 16	0- 4.75	4.75- 8	8 -14.25	644	471	287
Jul 30	0- 6	6 - 9.5	9.5 -14	319	874	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	132	510	204
Aug 27	0- 7.5	7.5 -11	11 -13	357	738	383
Sep 10	0- 8	8 -11.75	11.75-14	323	689	0
Sep 24	0-10		10 -13	258		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	147	0	255
Oct 22	*0-13.5			383		

*Entire water column

Cyclopoida C2

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			5660		
Jun 19	0- 4		4 -13	105		2493
Jul 17	0- 4		4 -13	502		2540
Aug 14	0- 5		5 -12	852		557
Sep 11	0- 7		7 -12	58		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	852	---	---
Jun 30	0- 2	---	---	136	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	637	---	---
Sep 22	0- 2	---	---	128	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	718	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	1172	---	---
Aug 23	0- 2	---	---	1577	---	---
Sep 20	0- 2	---	---	462	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	3395	0	4527
May 30	0- 3	3 - 6	6 -15	566	0	1509
Jun 13	0- 4.5	4.5 - 6	6 -15	0	1132	265
Jun 27	0- 3	3 - 7.5	7.5 -13	566	377	617
Jul 25	0- 4.5	4.5 - 8	8 -13	377	0	1018
Aug 8	0- 6	6 - 9	9 -13	0	1697	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	4753	0	3880
Sep 19	0- 9	9 -11	11 -14	377	849	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			314		
Jun 5	0- 3	3 - 5.5	5.5 -13	1530	689	4591
Jul 3	0- 3	3 - 8	8 -13	0	1148	2066
Jul 24	0- 5	5 -10	10 -13	459	2525	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	2040	1640
Sep 7	0- 5	5 -10	10 -13	230	1148	850
Sep 25	0- 8.5	8.5 -11	11 -13	240	612	255
Oct 23	*0-13			78		
1979						
May 21	*0-14			7070		
Jun 4	0- 3	3 - 6.5	6.5 -14	1148	2405	230
Jun 18	0- 3.25	3.25- 7	7 -14	0	714	820
Jul 2	0- 4.75	4.75- 7.25	7.25-14	242	306	638
Jul 16	0- 4.75	4.75- 8	8 -14.25	322	471	861
Jul 30	0- 6	6 - 9.5	9.5 -14	191	874	191
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	204	204
Aug 27	0- 7.5	7.5 -11	11 -13	255	2459	191
Sep 10	0- 8	8 -11.75	11.75-14	215	230	340
Sep 24	0-10		10 -13	172		128
Oct 8	0-11.75	11.75-12.5	12.5 -14	366	2295	0
Oct 22	*0-13.5			0		

*Entire water column

Cyclopoida C3

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			987		
Jun 19	0- 4		4 -13	209		1518
Jul 17	0- 4		4 -13	84		5397
Aug 14	0- 5		5 -12	697		3136
Sep 11	0- 7		7 -12	58		2098
Oct 9	*0-12			38		
Nov 6	*0-13			66		
1975						
Jun 2	0- 2.5	---	---	1858	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	319	---	---
Sep 22	0- 2	---	---	128	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	1333	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	366	---	---
Aug 23	0- 2	---	---	1352	---	---
Sep 20	0- 2	---	---	462	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	9506	1132	6790
May 30	0- 3	3 - 6	6 -15	0	566	7167
Jun 13	0- 4.5	4.5 - 6	6 -15	0	1132	3185
Jun 27	0- 3	3 - 7.5	7.5 -13	1132	0	2778
Jul 25	0- 4.5	4.5 - 8	8 -13	0	0	679
Aug 8	0- 6	6 - 9	9 -13	283	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	2263	0	3880
Sep 19	0- 9	9 -11	11 -14	754	2546	0
Oct 10	0-10.5		10.5 -14	162		0
Oct 17	*0-14			121		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	4208	5050	17674
Jul 3	0- 3	3 - 8	8 -13	0	1836	2295
Jul 24	0- 5	5 -10	10 -13	689	2754	383
Aug 14	0- 5	5 - 9.5	9.5 -13	0	1530	984
Sep 7	0- 5	5 -10	10 -13	459	2066	0
Sep 25	0- 8.5	8.5 -11	11 -13	60	4081	1530
Oct 23	*0-13			39		
1979						
May 21	*0-14			6579		
Jun 4	0- 3	3 - 6.5	6.5 -14	7396	8963	1607
Jun 18	0- 3.25	3.25- 7	7 -14	353	1020	2077
Jul 2	0- 4.75	4.75- 7.25	7.25-14	81	612	1020
Jul 16	0- 4.75	4.75- 8	8 -14.25	161	942	1004
Jul 30	0- 6	6 - 9.5	9.5 -14	0	984	1339
Aug 13	0- 6.5	6.5 -10.25	10.25-14	265	306	1326
Aug 27	0- 7.5	7.5 -11	11 -13	153	1230	574
Sep 10	0- 8	8 -11.75	11.75-14	323	689	0
Sep 24	0-10		10 -13	86		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	440	1148	0
Oct 22	*0-13.5			128		

*Entire water column

Cyclopoida C4

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			33		
Jun 19	0- 4		4 -13	209		2927
Jul 17	0- 4		4 -13	418		668
Aug 14	0- 5		5 -12	465		488
Sep 11	0- 7		7 -12	58		2297
Oct 9	*0-12			8068		
Nov 6	*0-13			929		
1975						
Jun 2	0- 2.5	---	---	2168	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	212	---	---
Sep 22	0- 2	---	---	769	---	---
Oct 20	0- 2	---	---	498	---	---
1976						
May 31	0- 2	---	---	1744	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	366	---	---
Aug 23	0- 2	---	---	676	---	---
Sep 20	0- 2	---	---	1077	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	1358	1132	17541
May 30	0- 3	3 - 6	6 -15	566	1132	129762
Jun 13	0- 4.5	4.5 - 6	6 -15	377	20370	46321
Jun 27	0- 3	3 - 7.5	7.5 -13	0	1132	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	485	3395
Aug 8	0- 6	6 - 9	9 -13	566	0	1697
Aug 22	0- 7.5	7.5 -10	10 -13.5	4527	0	3880
Sep 19	0- 9	9 -11	11 -14	754	10185	0
Oct 10	0-10.5		10.5 -14	6143		23767
Oct 17	*0-14			9942		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	383	2295	30757
Jul 3	0- 3	3 - 8	8 -13	383	918	66794
Jul 24	0- 5	5 -10	10 -13	0	8034	16450
Aug 14	0- 5	5 - 9.5	9.5 -13	497	2805	7542
Sep 7	0- 5	5 -10	10 -13	230	2754	1020
Sep 25	0- 8.5	8.5 -11	11 -13	480	8773	3571
Oct 23	*0-13			1020		
1979						
May 21	*0-14			861		
Jun 4	0- 3	3 - 6.5	6.5 -14	2678	8963	18822
Jun 18	0- 3.25	3.25- 7	7 -14	0	510	33883
Jul 2	0- 4.75	4.75- 7.25	7.25-14	81	1683	10457
Jul 16	0- 4.75	4.75- 8	8 -14.25	242	471	4734
Jul 30	0- 6	6 - 9.5	9.5 -14	0	984	5930
Aug 13	0- 6.5	6.5 -10.25	10.25-14	132	204	4285
Aug 27	0- 7.5	7.5 -11	11 -13	0	1476	2295
Sep 10	0- 8	8 -11.75	11.75-14	0	689	680
Sep 24	0-10		10 -13	172		510
Oct 8	0-11.75	11.75-12.5	12.5 -14	3663	6886	1785
Oct 22	*0-13.5			2040		

*Entire water column

Cyclopoida C5

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	0		2060
Jul 17	0- 4		4 -13	167		4286
Aug 14	0- 5		5 -12	155		697
Sep 11	0- 7		7 -12	0		200
Oct 9	*0-12			77		
Nov 6	*0-13			5807		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	426	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	672	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	73	---	---
Aug 23	0- 2	---	---	1802	---	---
Sep 20	0- 2	---	---	769	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	1132	13014
May 30	0- 3	3 - 6	6 -15	0	0	35647
Jun 13	0- 4.5	4.5 - 6	6 -15	0	3395	31057
Jun 27	0- 3	3 - 7.5	7.5 -13	0	377	6173
Jul 25	0- 4.5	4.5 - 8	8 -13	0	1455	0
Aug 8	0- 6	6 - 9	9 -13	0	0	849
Aug 22	0- 7.5	7.5 -10	10 -13.5	1132	679	485
Sep 19	0- 9	9 -11	11 -14	189	0	566
Oct 10	0-10.5		10.5 -14	485		4850
Oct 17	*0-14			1455		
1978						
May 8	*0-13			78		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	6427
Jul 3	0- 3	3 - 8	8 -13	0	230	3673
Jul 24	0- 5	5 -10	10 -13	230	1836	3060
Aug 14	0- 5	5 - 9.5	9.5 -13	166	2295	6230
Sep 7	0- 5	5 -10	10 -13	0	3213	680
Sep 25	0- 8.5	8.5 -11	11 -13	1020	7753	3315
Oct 23	*0-13			1295		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	128	437	1951
Jun 18	0- 3.25	3.25- 7	7 -14	0	0	14482
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	612	16960
Jul 16	0- 4.75	4.75- 8	8 -14.25	81	706	31991
Jul 30	0- 6	6 - 9.5	9.5 -14	64	4372	31943
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	1326	9385
Aug 27	0- 7.5	7.5 -11	11 -13	0	2705	7269
Sep 10	0- 8	8 -11.75	11.75-14	108	5279	2550
Sep 24	0-10		10 -13	86		1530
Oct 8	0-11.75	11.75-12.5	12.5 -14	733	6886	0
Oct 22	*0-13.5			1020		

*Entire water column

h. Rotifera

Conochilus sp.

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			329		
Jun 19	0- 4		4 -13	0		54
Jul 17	0- 4		4 -13	0		0
Aug 14	0- 5		5 -12	0		209
Sep 11	0- 7		7 -12	0		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	37321	---	---
Jun 30	0- 2	---	---	2033	---	---
Jul 28	0- 2	---	---	549	---	---
Aug 25	0- 2	---	---	2125	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	25949	---	---
Jun 28	0- 2	---	---	3429	---	---
Jul 26	0- 2	---	---	659	---	---
Aug 23	0- 2	---	---	225	---	---
Sep 20	0- 2	---	---	1385	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	2037	0	0
May 30	0- 3	3 - 6	6 -15	329309	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	1886	4527	0
Jun 27	0- 3	3 - 7.5	7.5 -13	2263	0	617
Jul 25	0- 4.5	4.5 - 8	8 -13	754	0	679
Aug 8	0- 6	6 - 9	9 -13	283	566	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	1811	0	485
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		485
Oct 17	*0-14			0		
1978						
May 8	*0-13			39		
Jun 5	0- 3	3 - 5.5	5.5 -13	130451	12165	16067
Jul 3	0- 3	3 - 8	8 -13	383	0	0
Jul 24	0- 5	5 -10	10 -13	0	918	0
Aug 14	0- 5	5 - 9.5	9.5 -13	995	1020	0
Sep 7	0- 5	5 -10	10 -13	0	230	0
Sep 25	0- 8.5	8.5 -11	11 -13	780	408	0
Oct 23	*0-13			3453		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	3060	918	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	14738	2601	1148
Jul 16	0- 4.75	4.75- 8	8 -14.25	403	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	0	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	153	0	0
Aug 27	0- 7.5	7.5 -11	11 -13	0	230	0
Sep 10	0- 8	8 -11.75	11.75-14	86		128
Sep 24	0-10		10 -13	73	0	0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0		
Oct 22	*0-13.5					

*Entire water column

Filinia longiseta

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	0		0
Aug 14	0- 5		5 -12	465		0
Sep 11	0- 7		7 -12	0		0
Oct 9	*0-12			115		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	0
May 30	0- 3	3 - 6	6 -15	0	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	0	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	377	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	0	0
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	0	0
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	0	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	0	0	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	128	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	0	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	0	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	0	0
Aug 27	0- 7.5	7.5 -11	11 -13	0	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Collotheca sp.

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	0		25962
Jul 17	0- 4		4 -13	0		14762
Aug 14	0- 5		5 -12	0		12683
Sep 11	0- 7		7 -12	0		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	19125	---	---
Jun 30	0- 2	---	---	5015	---	---
Jul 28	0- 2	---	---	769	---	---
Aug 25	0- 2	---	---	25176	---	---
Sep 22	0- 2	---	---	1795	---	---
Oct 20	0- 2	---	---	2242	---	---
1976						
May 31	0- 2	---	---	9641	---	---
Jun 28	0- 2	---	---	3714	---	---
Jul 26	0- 2	---	---	65275	---	---
Aug 23	0- 2	---	---	57445	---	---
Sep 20	0- 2	---	---	8154	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	1358	0	0
May 30	0- 3	3 - 6	6 -15	10185	4527	0
Jun 13	0- 4.5	4.5 - 6	6 -15	9430	14711	0
Jun 27	0- 3	3 - 7.5	7.5 -13	13580	4527	2778
Jul 25	0- 4.5	4.5 - 8	8 -13	6035	10670	50245
Aug 8	0- 6	6 - 9	9 -13	1132	12448	6366
Aug 22	0- 7.5	7.5 -10	10 -13.5	1132	4753	4365
Sep 19	0- 9	9 -11	11 -14	17729	64504	0
Oct 10	0-10.5		10.5 -14	123511		0
Oct 17	*0-14			34313		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	383	0	0
Jul 3	0- 3	3 - 8	8 -13	0	5509	0
Jul 24	0- 5	5 -10	10 -13	8034	33053	3443
Aug 14	0- 5	5 - 9.5	9.5 -13	4642	62994	14428
Sep 7	0- 5	5 -10	10 -13	24101	16067	2040
Sep 25	0- 8.5	8.5 -11	11 -13	10982	16526	3315
Oct 23	*0-13			78		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	0	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	153	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	235	0
Jul 30	0- 6	6 - 9.5	9.5 -14	64	2405	191
Aug 13	0- 6.5	6.5 -10.25	10.25-14	132	1938	306
Aug 27	0- 7.5	7.5 -11	11 -13	51	6394	1721
Sep 10	0- 8	8 -11.75	11.75-14	0	689	170
Sep 24	0-10		10 -13	0	---	0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Plosoma lenticulare

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	0		0
Aug 14	0- 5		5 -12	0		139
Sep 11	0- 7		7 -12	0		100
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	2418	---	---
Aug 25	0- 2	---	---	106	---	---
Sep 22	0- 2	---	---	128	---	---
Oct 20	0- 2	---	---	62	---	---
1976						
May 31	0- 2	---	---	103	---	---
Jun 28	0- 2	---	---	1000	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	676	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	0
May 30	0- 3	3 - 6	6 -15	0	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	377	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	1697	0	617
Jul 25	0- 4.5	4.5 - 8	8 -13	9808	0	0
Aug 8	0- 6	6 - 9	9 -13	4244	8487	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	905	0	1455
Sep 19	0- 9	9 -11	11 -14	189	0	566
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	383	0	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	459	230	0
Aug 14	0- 5	5 - 9.5	9.5 -13	332	255	0
Sep 7	0- 5	5 -10	10 -13	2295	459	340
Sep 25	0- 8.5	8.5 -11	11 -13	1080	1020	255
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	128	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	118	0	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	332	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	3544	1883	287
Jul 30	0- 6	6 - 9.5	9.5 -14	6185	1967	956
Aug 13	0- 6.5	6.5 -10.25	10.25-14	3575	816	1836
Aug 27	0- 7.5	7.5 -11	11 -13	5254	2459	0
Sep 10	0- 8	8 -11.75	11.75-14	6025	8034	6461
Sep 24	0-10		10 -13	2496		765
Oct 8	0-11.75	11.75-12.5	12.5 -14	220	2295	255
Oct 22	*0-13.5			0		

*Entire water column

Polyarthra vulgaris

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			7174		
Jun 19	0- 4		4 -13	5226		27967
Jul 17	0- 4		4 -13	7777		13122
Aug 14	0- 5		5 -12	5420		5017
Sep 11	0- 7		7 -12	7898		10388
Oct 9	*0-12			1575		
Nov 6	*0-13			1327		
1975						
Jun 2	0- 2.5	---	---	11305	---	---
Jun 30	0- 2	---	---	3388	---	---
Jul 28	0- 2	---	---	1538	---	---
Aug 25	0- 2	---	---	1806	---	---
Sep 22	0- 2	---	---	641	---	---
Oct 20	0- 2	---	---	374	---	---
1976						
May 31	0- 2	---	---	22769	---	---
Jun 28	0- 2	---	---	143	---	---
Jul 26	0- 2	---	---	3223	---	---
Aug 23	0- 2	---	---	30412	---	---
Sep 20	0- 2	---	---	1538	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	19691	188985	48472
May 30	0- 3	3 - 6	6 -15	44700	7922	171821
Jun 13	0- 4.5	4.5 - 6	6 -15	17352	135797	165241
Jun 27	0- 3	3 - 7.5	7.5 -13	9619	22256	165735
Jul 25	0- 4.5	4.5 - 8	8 -13	28291	32979	155488
Aug 6	0- 6	6 - 9	9 -13	62241	0	58138
Aug 22	0- 7.5	7.5 -10	10 -13.5	91437	0	120763
Sep 19	0- 9	9 -11	11 -14	1320	2546	0
Oct 10	0-10.5		10.5 -14	1778		0
Oct 17	*0-14			3152		
1978						
May 8	*0-13			7298		
Jun 5	0- 3	3 - 5.5	5.5 -13	5356	13542	70467
Jul 3	0- 3	3 - 8	8 -13	1148	4820	115954
Jul 24	0- 5	5 -10	10 -13	3443	76435	37873
Aug 14	0- 5	5 - 9.5	9.5 -13	2984	5356	71483
Sep 7	0- 5	5 -10	10 -13	14002	52104	6971
Sep 25	0- 8.5	8.5 -11	11 -13	12542	48967	22953
Oct 23	*0-13			4551		
1979						
May 21	*0-14			11497		
Jun 4	0- 3	3 - 6.5	6.5 -14	19383	87769	8378
Jun 18	0- 3.25	3.25- 7	7 -14	8593	24280	120723
Jul 2	0- 4.75	4.75- 7.25	7.25-14	25531	119204	207217
Jul 16	0- 4.75	4.75- 8	8 -14.25	12564	71685	302983
Jul 30	0- 6	6 - 9.5	9.5 -14	21041	104055	214422
Aug 13	0- 6.5	6.5 -10.25	10.25-14	15891	23259	45703
Aug 27	0- 7.5	7.5 -11	11 -13	20505	62958	22953
Sep 10	0- 8	8 -11.75	11.75-14	14848	27774	30774
Sep 24	0-10		10 -13	18678		7524
Oct 8	0-11.75	11.75-12.5	12.5 -14	5641	34430	2295
Oct 22	*0-13.5			765		

*Entire water column

Polyarthra remata

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			1185		
Jun 19	0- 4		4 -13	2613		3948
Jul 17	0- 4		4 -13	5268		317
Aug 14	0- 5		5 -12	542		486
Sep 11	0- 7		7 -12	1161		2098
Oct 9	*0-12			0		
Nov 6	*0-13			100		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	271	---	---
Jul 28	0- 2	---	---	549	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	2051	---	---
Oct 20	0- 2	---	---	249	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	293	---	---
Aug 23	0- 2	---	---	2703	---	---
Sep 20	0- 2	---	---	2154	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	679	104111	0
May 30	0- 3	3 - 6	6 -15	10185	0	25085
Jun 13	0- 4.5	4.5 - 6	6 -15	3018	30555	52426
Jun 27	0- 3	3 - 7.5	7.5 -13	9053	0	51233
Jul 25	0- 4.5	4.5 - 8	8 -13	219917	0	120860
Aug 8	0- 6	6 - 9	9 -13	26028	0	102697
Aug 22	0- 7.5	7.5 -10	10 -13.5	4527	83516	1156220
Sep 19	0- 9	9 -11	11 -14	1320	21218	0
Oct 10	0-10.5		10.5 -14	647		0
Oct 17	*0-14			121		
1978						
May 8	*0-13			78		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	459	689
Jul 3	0- 3	3 - 8	8 -13	0	0	16756
Jul 24	0- 5	5 -10	10 -13	918	5738	17980
Aug 14	0- 5	5 - 9.5	9.5 -13	497	1020	49842
Sep 7	0- 5	5 -10	10 -13	1836	81714	13262
Sep 25	0- 8.5	8.5 -11	11 -13	2280	225248	166029
Oct 23	*0-13			353		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	437	115
Jun 18	0- 3.25	3.25- 7	7 -14	0	204	1038
Jul 2	0- 4.75	4.75- 7.25	7.25-14	483	765	1275
Jul 16	0- 4.75	4.75- 8	8 -14.25	161	1883	7316
Jul 30	0- 6	6 - 9.5	9.5 -14	255	12679	30031
Aug 13	0- 6.5	6.5 -10.25	10.25-14	5827	28666	40806
Aug 27	0- 7.5	7.5 -11	11 -13	26779	793119	387528
Sep 10	0- 8	8 -11.75	11.75-14	54873	569931	697951
Sep 24	0-10		10 -13	109487		146136
Oct 8	0-11.75	11.75-12.5	12.5 -14	110542	1052410	101504
Oct 22	*0-13.5			171639		

*Entire water column

Polyarthra dolicoptera

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	0		0
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	0		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	0
May 30	0- 3	3 - 6	6 -15	0	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	0	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	0	0
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	0	0
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	1148
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	328
Sep 7	0- 5	5 -10	10 -13	0	0	340
Sep 25	0- 8.5	8.5 -11	11 -13	0	0	510
Oct 23	*0-13			78		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	0	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	0	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	0	0
Aug 27	0- 7.5	7.5 -11	11 -13	0	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Synchaeta sp.

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	0		0
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	0		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	0
May 30	0- 3	3 - 6	6 -15	0	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	0	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	0	0
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	0	0
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			275		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	0	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	0	0	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			430		
Jun 4	0- 3	3 - 6.5	6.5 -14	128	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	0	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	153	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	0	109	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	918	0
Aug 27	0- 7.5	7.5 -11	11 -13	0	1721	0
Sep 10	0- 8	8 -11.75	11.75-14	0	230	0
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Diaphanosoma leuchtenbergianum

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	0		6992
Jul 17	0- 4		4 -13	0		5238
Aug 14	0- 5		5 -12	0		1463
Sep 11	0- 7		7 -12	0		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	542	---	---
Jun 30	0- 2	---	---	136	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	319	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	187	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	154	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	4527	0
May 30	0- 3	3 - 6	6 -15	1132	566	377
Jun 13	0- 4.5	4.5 - 6	6 -15	1132	20370	5707
Jun 27	0- 3	3 - 7.5	7.5 -13	10185	27914	0
Jul 25	0- 4.5	4.5 - 8	8 -13	754	0	1018
Aug 8	0- 6	6 - 9	9 -13	1132	0	2122
Aug 22	0- 7.5	7.5 -10	10 -13.5	7243	0	0
Sep 19	0- 9	9 -11	11 -14	1132	17823	0
Oct 10	0-10.5		10.5 -14	1778		0
Oct 17	*0-14			849		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	2295	1148	230
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	230	5738	0
Aug 14	0- 5	5 - 9.5	9.5 -13	1658	2040	656
Sep 7	0- 5	5 -10	10 -13	0	230	0
Sep 25	0- 8.5	8.5 -11	11 -13	0	0	0
Oct 23	*0-13			39		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	109	0
Jun 18	0- 3.25	3.25- 7	7 -14	353	1428	109
Jul 2	0- 4.75	4.75- 7.25	7.25-14	1691	3213	128
Jul 16	0- 4.75	4.75- 8	8 -14.25	161	1530	287
Jul 30	0- 6	6 - 9.5	9.5 -14	319	874	383
Aug 13	0- 6.5	6.5 -10.25	10.25-14	397	816	204
Aug 27	0- 7.5	7.5 -11	11 -13	153	1230	574
Sep 10	0- 8	8 -11.75	11.75-14	0		
Sep 24	0-10		10 -13	0		128
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Daphnia galeata mendotae

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			33		
Jun 19	0- 4		4 -13	0		16916
Jul 17	0- 4		4 -13	0		17619
Aug 14	0- 5		5 -12	1161		31359
Sep 11	0- 7		7 -12	755		14783
Oct 9	*0-12			2190		
Nov 6	*0-13			2024		
1975						
Jun 2	0- 2.5	---	---	2245	---	---
Jun 30	0- 2	---	---	949	---	---
Jul 28	0- 2	---	---	1758	---	---
Aug 25	0- 2	---	---	1912	---	---
Sep 22	0- 2	---	---	3333	---	---
Oct 20	0- 2	---	---	1432	---	---
1976						
May 31	0- 2	---	---	308	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	147	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	123161
May 30	0- 3	3 - 6	6 -15	71294	0	152961
Jun 13	0- 4.5	4.5 - 6	6 -15	377	38476	18050
Jun 27	0- 3	3 - 7.5	7.5 -13	1132	1132	14814
Jul 25	0- 4.5	4.5 - 8	8 -13	2263	7275	11882
Aug 8	0- 6	6 - 9	9 -13	3961	10751	6366
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	25802	38314
Sep 19	0- 9	9 -11	11 -14	943	5941	0
Oct 10	0-10.5		10.5 -14	1132		0
Oct 17	*0-14			727		
1978						
May 8	*0-13			157		
Jun 5	0- 3	3 - 5.5	5.5 -13	383	689	7804
Jul 3	0- 3	3 - 8	8 -13	9946	4132	11018
Jul 24	0- 5	5 -10	10 -13	4132	19740	6121
Aug 14	0- 5	5 - 9.5	9.5 -13	1824	10967	6230
Sep 7	0- 5	5 -10	10 -13	6886	2066	340
Sep 25	0- 8.5	8.5 -11	11 -13	2760	9757	1530
Oct 23	*0-13			745		
1979						
May 21	*0-14			184		
Jun 4	0- 3	3 - 6.5	6.5 -14	3826	656	459
Jun 18	0- 3.25	3.25- 7	7 -14	19893	7141	383
Jul 2	0- 4.75	4.75- 7.25	7.25-14	17235	14537	4718
Jul 16	0- 4.75	4.75- 8	8 -14.25	25369	38256	4447
Jul 30	0- 6	6 - 9.5	9.5 -14	6822	72686	5738
Aug 13	0- 6.5	6.5 -10.25	10.25-14	19731	32237	12344
Aug 27	0- 7.5	7.5 -11	11 -13	14180	18445	5738
Sep 10	0- 8	8 -11.75	11.75-14	8285	14461	18363
Sep 24	0-10		10 -13	6714		6376
Oct 8	0-11.75	11.75-12.5	12.5 -14	8131	95256	7141
Oct 22	*0-13.5			28182		

*Entire water column

Trichocerca cylindrica

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			66		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	0		0
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	0		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	425	---	---
Sep 22	0- 3	---	---	128	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	103	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	1126	---	---
Sep 20	0- 2	---	---	154	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	0
May 30	0- 3	3 - 6	6 -15	0	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	0	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	0
Jul 25	0- 4.5	4.5 - 8	6 -13	377	0	0
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	453	0	0
Sep 19	0- 9	9 -11	11 -14	0	0	566
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	230	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	0	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	0	204	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	102	55
Jul 2	0- 4.75	4.75- 7.25	7.25-14	161	153	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	1177	430
Jul 30	0- 6	6 - 9.5	9.5 -14	383	1640	1913
Aug 13	0- 6.5	6.5 -10.25	10.25-14	2913	11528	6937
Aug 27	0- 7.5	7.5 -11	11 -13	3417	84353	44568
Sep 10	0- 8	8 -11.75	11.75-14	1721	22724	58488
Sep 24	0-10		10 -13	6025		37873
Oct 8	0-11.75	11.75-12.5	12.5 -14	43001	801071	183116
Oct 22	*0-13.5			46799		

*Entire water column

Trichocerca sp.

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	167		1058
Aug 14	0- 5		5 -12	0		4390
Sep 11	0- 7		7 -12	407		4794
Oct 9	*0-12			231		
Nov 6	*0-13			265		
1975						
Jun 2	0- 2.5	---	---	1239	---	---
Jun 30	0- 2	---	---	271	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	1062	---	---
Sep 22	0- 2	---	---	3974	---	---
Oct 20	0- 2	---	---	1432	---	---
1976						
May 31	0- 2	---	---	923	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	147	---	---
Aug 23	0- 2	---	---	225	---	---
Sep 20	0- 2	---	---	308	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	679	3395	0
May 30	0- 3	3 - 6	6 -15	4527	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	7922	12448	0
Jun 27	0- 3	3 - 7.5	7.5 -13	11882	14711	0
Jul 25	0- 4.5	4.5 - 8	8 -13	28668	32979	7808
Aug 8	0- 6	6 - 9	9 -13	13297	26594	36920
Aug 22	0- 7.5	7.5 -10	10 -13.5	13127	68578	130462
Sep 19	0- 9	9 -11	11 -14	5092	50924	0
Oct 10	0-10.5		10.5 -14	6628		0
Oct 17	*0-14			4971		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	0	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	0	0	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	0	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	0	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	0	0
Aug 27	0- 7.5	7.5 -11	11 -13	0	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Kerratella taurocephala

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			165		
Jun 19	0- 4		4 -13	314		163
Jul 17	0- 4		4 -13	167		0
Aug 14	0- 5		5 -12	77		0
Sep 11	0- 7		7 -12	232		400
Oct 9	*0-12			423		
Nov 6	*0-13			332		
1975						
Jun 2	0- 2.5	---	---	1007	---	---
Jun 30	0- 2	---	---	1355	---	---
Jul 26	0- 2	---	---	659	---	---
Aug 25	0- 2	---	---	637	---	---
Sep 22	0- 2	---	---	1282	---	---
Oct 20	0- 2	---	---	996	---	---
1976						
May 31	0- 2	---	---	103	---	---
Jun 28	0- 2	---	---	286	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	225	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	1358	2263	0
May 30	0- 3	3 - 6	6 -15	1132	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	0	2263	0
Jun 27	0- 3	3 - 7.5	7.5 -13	2829	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	4149	0	0
Aug 8	0- 6	6 - 9	9 -13	16692	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	26707	0	0
Sep 19	0- 9	9 -11	11 -14	3584	73840	0
Oct 10	0-10.5		10.5 -14	27806		0
Oct 17	*0-14			32979		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	5738	3443	1148
Jul 3	0- 3	3 - 8	8 -13	30604	2754	3673
Jul 24	0- 5	5 -10	10 -13	5738	12854	3443
Aug 14	0- 5	5 - 9.5	9.5 -13	995	255	0
Sep 7	0- 5	5 -10	10 -13	3672	459	510
Sep 25	0- 8.5	8.5 -11	11 -13	2940	4897	510
Oct 23	*0-13			1177		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	638	219	0
Jun 18	0- 3.25	3.25- 7	7 -14	13301	2346	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	16510	3213	383
Jul 16	0- 4.75	4.75- 8	8 -14.25	110014	21423	4878
Jul 30	0- 6	6 - 9.5	9.5 -14	115276	84490	11285
Aug 13	0- 6.5	6.5 -10.25	10.25-14	97993	96506	52844
Aug 27	0- 7.5	7.5 -11	11 -13	27340	26068	4973
Sep 10	0- 8	8 -11.75	11.75-14	13234	13772	15472
Sep 24	0-10		10 -13	11104		7396
Oct 8	0-11.75	11.75-12.5	12.5 -14	8937	48201	3060
Oct 22	*0-13.5			19128		

*Entire water column

Kerratella cochlearis

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			16092		
Jun 19	0- 4		4 -13	14216		28618
Jul 17	0- 4		4 -13	2091		33598
Aug 14	0- 5		5 -12	1471		24321
Sep 11	0- 7		7 -12	56		61528
Oct 9	*0-12			25470		
Nov 6	*0-13			16426		
1975						
Jun 2	0- 2.5	---	---	232	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	220	---	---
Aug 25	0- 2	---	---	212	---	---
Sep 22	0- 2	---	---	256	---	---
Oct 20	0- 2	---	---	934	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	220	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	47529	523953	26405
May 30	0- 3	3 - 6	6 -15	222934	0	237268
Jun 13	0- 4.5	4.5 - 6	6 -15	3395	329309	266908
Jun 27	0- 3	3 - 7.5	7.5 -13	3395	32818	345049
Jul 25	0- 4.5	4.5 - 8	8 -13	5281	71294	226103
Aug 8	0- 6	6 - 9	9 -13	22916	18672	233402
Aug 22	0- 7.5	7.5 -10	10 -13.5	679	87590	526701
Sep 19	0- 9	9 -11	11 -14	943	266503	0
Oct 10	0-10.5		10.5 -14	485		5335
Oct 17	*0-14			364		
1978						
May 8	*0-13			1805		
Jun 5	0- 3	3 - 5.5	5.5 -13	9946	36037	109716
Jul 3	0- 3	3 - 8	8 -13	1148	19510	430604
Jul 24	0- 5	5 -10	10 -13	230	161591	41699
Aug 14	0- 5	5 - 9.5	9.5 -13	0	1530	34430
Sep 7	0- 5	5 -10	10 -13	0	4132	680
Sep 25	0- 8.5	8.5 -11	11 -13	60	1836	255
Oct 23	*0-13			78		
1979						
May 21	*0-14			123		
Jun 4	0- 3	3 - 6.5	6.5 -14	3315	437	0
Jun 18	0- 3.25	3.25- 7	7 -14	118	0	55
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	118	0
Jul 30	0- 6	6 - 9.5	9.5 -14	0	656	765
Aug 13	0- 6.5	6.5 -10.25	10.25-14	132	306	714
Aug 27	0- 7.5	7.5 -11	11 -13	2193	13280	7651
Sep 10	0- 8	8 -11.75	11.75-14	0	10099	11562
Sep 24	0-10		10 -13	4734		11732
Oct 8	0-11.75	11.75-12.5	12.5 -14	14944	172149	16067
Oct 22	*0-13.5			49605		

*Entire water column

Keratella hiemalis

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			2205		
Jun 19	0- 4		4 -13	0		379
Jul 17	0- 4		4 -13	0		0
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	0		0
Oct 9	*0-12			0		
Nov 6	*0-13			265		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	53187
May 30	0- 3	3 - 6	6 -15	2829	0	3018
Jun 13	0- 4.5	4.5 - 6	6 -15	0	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	485	0
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	0	0
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			1099		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	4820
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	0	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	0	0	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			738		
Jun 4	0- 3	3 - 6.5	6.5 -14	128	0	1148
Jun 18	0- 3.25	3.25- 7	7 -14	0	0	55
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	0	109	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	0	0
Aug 27	0- 7.5	7.5 -11	11 -13	0	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Kellicottia longispina

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			10037		
Jun 19	0- 4		4 -13	16202		36314
Jul 17	0- 4		4 -13	40725		64656
Aug 14	0- 5		5 -12	8208		26551
Sep 11	0- 7		7 -12	7724		19477
Oct 9	*0-12			4572		
Nov 6	*0-13			7500		
1975						
Jun 2	0- 2.5	---	---	8962	---	---
Jun 30	0- 2	---	---	2711	---	---
Jul 28	0- 2	---	---	330	---	---
Aug 25	0- 2	---	---	1168	---	---
Sep 22	0- 2	---	---	2179	---	---
Oct 20	0- 2	---	---	1681	---	---
1976						
May 31	0- 2	---	---	83692	---	---
Jun 28	0- 2	---	---	1142	---	---
Jul 26	0- 2	---	---	1665	---	---
Aug 23	0- 2	---	---	8560	---	---
Sep 20	0- 2	---	---	4154	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	390418	392682	0
May 30	0- 3	3 - 6	6 -15	425499	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	55451	116559	26678
Jun 27	0- 3	3 - 7.5	7.5 -13	59977	27537	79627
Jul 25	0- 4.5	4.5 - 8	8 -13	16220	91664	166352
Aug 8	0- 6	6 - 9	9 -13	29706	11316	177385
Aug 22	0- 7.5	7.5 -10	10 -13.5	13580	46171	293420
Sep 19	0- 9	9 -11	11 -14	5470	28857	0
Oct 10	0-10.5		10.5 -14	9862		0
Oct 17	*0-14			9336		
1978						
May 8	*0-13			5336		
Jun 5	0- 3	3 - 5.5	5.5 -13	87988	82173	75287
Jul 3	0- 3	3 - 8	8 -13	6121	38562	193037
Jul 24	0- 5	5 -10	10 -13	24780	276817	79189
Aug 14	0- 5	5 - 9.5	9.5 -13	9449	31880	63941
Sep 7	0- 5	5 -10	10 -13	34200	8952	2040
Sep 25	0- 8.5	8.5 -11	11 -13	11942	37133	6376
Oct 23	*0-13			5729		
1979						
May 21	*0-14			18014		
Jun 4	0- 3	3 - 6.5	6.5 -14	88753	101650	8607
Jun 18	0- 3.25	3.25- 7	7 -14	83927	79368	27817
Jul 2	0- 4.75	4.75- 7.25	7.25-14	154149	291354	64524
Jul 16	0- 4.75	4.75- 8	8 -14.25	26739	199281	96978
Jul 30	0- 6	6 - 9.5	9.5 -14	5930	68204	96978
Aug 13	0- 6.5	6.5 -10.25	10.25-14	2384	52742	42438
Aug 27	0- 7.5	7.5 -11	11 -13	2193	398158	135042
Sep 10	0- 8	8 -11.75	11.75-14	3443	89288	78041
Sep 24	0-10		10 -13	14547		21678
Oct 8	0-11.75	11.75-12.5	12.5 -14	5274	83780	11222
Oct 22	*0-13.5			12624		

*Entire water column

Kalliostria hoctoniensis

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			2007		
Jun 19	0- 4		4 -13	0		2276
Jul 17	0- 4		4 -13	0		3915
Aug 14	0- 5		5 -12	0		6411
Sep 11	0- 7		7 -12	0		2098
Oct 9	*0-12			2843		
Nov 6	*0-13			1029		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	13203
May 30	0- 3	3 - 6	6 -15	23765	0	25462
Jun 13	0- 4.5	4.5 - 6	6 -15	754	79215	89323
Jun 27	0- 3	3 - 7.5	7.5 -13	2829	11694	134871
Jul 25	0- 4.5	4.5 - 8	8 -13	9430	96998	224745
Aug 8	0- 6	6 - 9	9 -13	54319	60543	162957
Aug 22	0- 7.5	7.5 -10	10 -13.5	679	65862	363259
Sep 19	0- 9	9 -11	11 -14	189	76386	0
Oct 10	0-10.5		10.5 -14	0		2910
Oct 17	*0-14			0		
1978						
May 8	*0-13			275		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	1148	2295
Jul 3	0- 3	3 - 8	8 -13	0	0	86305
Jul 24	0- 5	5 -10	10 -13	0	157000	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	255	225598
Sep 7	0- 5	5 -10	10 -13	0	20888	3741
Sep 25	0- 8.5	8.5 -11	11 -13	0	3469	2295
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	0	55
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	0	143
Jul 30	0- 6	6 - 9.5	9.5 -14	0	109	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	306	408
Aug 27	0- 7.5	7.5 -11	11 -13	0	3935	7460
Sep 10	0- 8	8 -11.75	11.75-14	0	21576	27714
Sep 24	0-10		10 -13	172		22443
Oct 8	0-11.75	11.75-12.5	12.5 -14	109003	1671002	193318
Oct 22	*0-13.5			207472		

*Entire water column

Anuraeopsis fissa

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	1672		688
Aug 14	0- 5		5 -12	1471		70
Sep 11	0- 7		7 -12	290		1099
Oct 9	*0-12			115		0
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	0	---	---
Jun 30	0- 2	---	---	271	---	---
Jul 28	0- 2	---	---	440	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	0	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	205	---	---
Jun 28	0- 2	---	---	0	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	225	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	0
May 30	0- 3	3 - 6	6 -15	0	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	0	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	0	0	0
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	0	0
Sep 19	0- 9	9 -11	11 -14	0	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	0	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	0	0	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	0	0	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	0	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	64	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	0	0	0
Aug 27	0- 7.5	7.5 -11	11 -13	0	0	0
Sep 10	0- 8	8 -11.75	11.75-14	0	0	0
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Geoane sp.

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			0		
Jun 19	0- 4		4 -13	0		0
Jul 17	0- 4		4 -13	84		0
Aug 14	0- 5		5 -12	0		0
Sep 11	0- 7		7 -12	58		0
Oct 9	*0-12			0		
Nov 6	*0-13			0		
1975						
Jun 2	0- 2.5	---	---	77	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	0	---	---
Aug 25	0- 2	---	---	0	---	---
Sep 22	0- 2	---	---	128	---	---
Oct 20	0- 2	---	---	0	---	---
1976						
May 31	0- 2	---	---	0	---	---
Jun 28	0- 2	---	---	429	---	---
Jul 26	0- 2	---	---	0	---	---
Aug 23	0- 2	---	---	0	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	0
May 30	0- 3	3 - 6	6 -15	0	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	0	0	0
Jun 27	0- 3	3 - 7.5	7.5 -13	0	0	0
Jul 25	0- 4.5	4.5 - 8	8 -13	377	0	339
Aug 8	0- 6	6 - 9	9 -13	0	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	0	0
Sep 19	0- 9	9 -11	11 -14	169	0	0
Oct 10	0-10.5		10.5 -14	0		0
Oct 17	*0-14			0		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	383	0	0
Jul 3	0- 3	3 - 8	8 -13	0	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	328
Sep 7	0- 5	5 -10	10 -13	0	0	0
Sep 25	0- 8.5	8.5 -11	11 -13	0	204	255
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	118	0	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	81	306	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	0	235	0
Jul 30	0- 6	6 - 9.5	9.5 -14	0	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	132	102	0
Aug 27	0- 7.5	7.5 -11	11 -13	51	246	191
Sep 10	0- 8	8 -11.75	11.75-14	0	0	170
Sep 24	0-10		10 -13	172		128
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Other globular rotifers

1974	SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER CUBIC METRE UPPER	MIDDLE	LOWER
May 22	*0-11			6581		
Jun 19	0- 4		4 -13	19661		4336
Jul 17	0- 4		4 -13	36042		1587
Aug 14	0- 5		5 -12	14557		767
Sep 11	0- 7		7 -12	5285		16081
Oct 9	*0-12			2113		
Nov 6	*0-13			1128		
1975						
Jun 2	0- 2.5	---	---	77	---	---
Jun 30	0- 2	---	---	0	---	---
Jul 28	0- 2	---	---	330	---	---
Aug 25	0- 2	---	---	425	---	---
Sep 22	0- 2	---	---	385	---	---
Oct 20	0- 2	---	---	685	---	---
1976						
May 31	0- 2	---	---	718	---	---
Jun 28	0- 2	---	---	714	---	---
Jul 26	0- 2	---	---	952	---	---
Aug 23	0- 2	---	---	451	---	---
Sep 20	0- 2	---	---	0	---	---
1977						
May 16	0- 2.5	2.5 - 4	4 -13	0	0	0
May 30	0- 3	3 - 6	6 -15	0	0	0
Jun 13	0- 4.5	4.5 - 6	6 -15	754	1132	75653
Jun 27	0- 3	3 - 7.5	7.5 -13	1132	8676	0
Jul 25	0- 4.5	4.5 - 8	8 -13	4904	0	2376
Aug 8	0- 6	6 - 9	9 -13	7356	0	0
Aug 22	0- 7.5	7.5 -10	10 -13.5	0	1358	485
Sep 19	0- 9	9 -11	11 -14	377	1697	0
Oct 10	0-10.5		10.5 -14	808		0
Oct 17	*0-14			364		
1978						
May 8	*0-13			0		
Jun 5	0- 3	3 - 5.5	5.5 -13	0	0	0
Jul 3	0- 3	3 - 8	8 -13	383	0	0
Jul 24	0- 5	5 -10	10 -13	0	0	0
Aug 14	0- 5	5 - 9.5	9.5 -13	0	0	0
Sep 7	0- 5	5 -10	10 -13	3213	689	170
Sep 25	0- 8.5	8.5 -11	11 -13	660	3877	0
Oct 23	*0-13			0		
1979						
May 21	*0-14			0		
Jun 4	0- 3	3 - 6.5	6.5 -14	0	0	0
Jun 18	0- 3.25	3.25- 7	7 -14	353	0	0
Jul 2	0- 4.75	4.75- 7.25	7.25-14	81	0	0
Jul 16	0- 4.75	4.75- 8	8 -14.25	81	0	0
Jul 30	0- 6	6 - 9.5	9.5 -14	54	0	0
Aug 13	0- 6.5	6.5 -10.25	10.25-14	265	204	102
Aug 27	0- 7.5	7.5 -11	11 -13	459	492	383
Sep 10	0- 8	8 -11.75	11.75-14	215	0	340
Sep 24	0-10		10 -13	0		0
Oct 8	0-11.75	11.75-12.5	12.5 -14	0	0	0
Oct 22	*0-13.5			0		

*Entire water column

Appendix 2. Variation in calculated density due to variability in raw count for adult copepods and cladocerans in L223 in 1974.

Species	Sampling date	Sampling layer m	Original Count: Percent of total sample volume counted	Original Count: Calculated density (no. m^{-3})	Recount: Raw Counts (no. ml^{-1} aliquot)	Recount: Percent of total sample volume	Recount: Calculated density (no. m^{-3}) 10 counts	Recount: lowest pair	Recount: highest pair
Daphnia galeatae mendotae	May 22	0-11	8.8	0	0,0,0,0,1,0,0,0, 0,0	25	12	0	58
	Jun 19	0- 4	6.7	732	2,1,2,1,1,2,1,2, 2,5	25	530	279	976
	Jun 19	4-13	7.1	1084	6,13,9,7,6,9 15,9,9,13	25	1672	929	2168
	Jul 17	0- 4	8.3	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Jul 17	4-13	7.3	3228	16,14,30,18,17 22,21,17,29,16	25	3097	2323	4568
	Aug 14	0- 5	7.5	310	1,0,1,0,1,1,0,1 1,1	25	163	0	232
	Aug 14	5-12	7.1	3066	16,14,16,16,16, 12,11,22,17,12	25	3026	2290	3883
	Sep 11	0- 7	7.5	232	3,3,4,2,1,2,1,4 3,3	25	453	174	610
	Sep 11	7-12	7.0	499	1,1,0,1,4,2,1,0 4,2	25	446	0	1115
	Oct 9	0-12	7.0	192	1,1,4,4,1,3,0,3 1,6	25	257	54	536
	Nov 6	0-13	7.5	66	1,1,0,1,0,0,0,1, 0,0	25	40	0	99
Bosmina longirostris	May 22	0-11	8.8	66	0,0,0,1,0,0,0,0, 0,0	25	12	0	58
	Jun 19	0- 4	6.7	1777	6,7,10,13,10,6,7, 5,10,7	25	2258	1533	3206
	Jun 19	4-13	7.1	3794	14,24,15,13,15,10, 20,18,20,19	25	2602	1781	3407
	Jul 17	0- 4	8.3	1087	6,7,3,8,3,6,4,2, 5,8	25	1449	697	2230
	Jul 17	4-13	7.3	423	1,1,2,2,3,2,4,2, 2,3	25	341	155	542
	Aug 14	0- 5	7.5	5033	33,27,24,18,24,24, 28,30,23,25	25	5947	4762	7317
	Aug 14	5-12	7.1	906	5,7,6,6,6,8,10,1, 2,7	25	1155	299	1792
	Sep 11	0- 7	7.5	348	2,5,2,3,2,3,2,2, 0,3	25	418	174	697
	Sep 11	7-12	7.0	599	1,1,2,1,2,3,1,0, 2,1	25	390	139	697
	Oct 9	0-12	7.0	0	3,1,0,0,0,0,0,1, 0,1	25	64	0	214
	Nov 6	0-13	7.5	0	0,0,0,0,0,0,0,0, 0,1	25	10	0	50
Diaphanosoma brachyurum	May 22	0-11	8.8	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Jun 19	0- 4	6.7	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Jun 19	4-13	7.1	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Jul 17	0- 4	8.3	1672	7,6,7,9,5,11,8,8, 12,13	25	2397	1533	3484
	Jul 17	4-13	7.3	688	5,4,4,6,8,7,5,1, 6,6	25	805	387	1161
	Aug 14	0- 7	7.5	1471	4,9,5,9,13,5,9,0, 8,9	25	1835	1045	2555
	Aug 14	5-12	7.1	209	10,6,4,2,3,4,5,6, 5,4	25	976	498	1593
	Sep 11	0- 7	7.5	290	2,5,5,4,4,2,6,4, 3,6	25	714	348	1045
	Sep 11	7-12	7.0	1099	1,1,1,1,1,1,3,2, 1,2	25	390	279	697
	Oct 9	0-12	7.0	115	2,0,0,3,1,2,2,2, 2,1	25	161	0	268
	Nov 6	0-13	7.5	0	0,0,0,0,0,1,0,0, 0,0	25	10	0	50

Appendix 2. cont'd

Species	Sampling date	Sampling layer m	Original Count: Percent of total sample volume counted	Original Count: Calculated density (no. m^{-3})	Recount: Raw Counts (no. ml^{-1} (aliquot)	Recount: Percent of total sample volume	Recount: Calculated density (no. m^{-3}) 10 counts	Recount: lowest pair	Recount: highest pair
Cyclops bicuspidatus thomasi	May 22	0-11	8.8	494	3,2,4,9,3,3,3,4, 2,5	25	441	232	1045
	Jun 19	0- 4	6.7	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Jun 19	4-13	7.1	0	0,0,3,0,0,0,0,0, 0,0	25	52	0	232
	Jul 17	0- 4	8.3	84	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Jul 17	4-13	7.3	952	4,4,7,4,3,8,6,10, 4,4	25	836	542	1394
	Aug 14	0- 5	7.5	0	0,2,0,0,0,0,0,0, 0,0	25	46	0	232
	Aug 14	5-12	7.1	4530	24,19,17,26,21,23, 20,32,26,21	25	4559	3584	5774
	Sep 11	0- 7	7.5	0	0,0,0,0,0,1,0,0, 0,0	25	17	0	87
	Sep 11	7-12	7.0	999	3,5,5,4,2,4,2,2, 1,5	25	920	418	1394
	Oct 9	0-12	7.0	1345	9,7,14,16,12,15, 16,17,10,13	25	1383	911	1769
	Nov 6	0-13	7.5	0	0,1,0,0,1,0,1,3, 1,2	25	90	0	249
Mesocyclops edax	May 22	0-11	8.8		1,2,0,0,0,0,0,0, 0,1	25	46	0	174
	Jun 19	0- 4	6.7	209	3,0,0,0,1,0,2,0 2,1	25	251	0	697
	Jun 19	4-13	7.1	271	0,0,0,1,0,1,0,1, 1,2	25	105	0	232
	Jul 17	0- 4	8.3	251	0,2,2,2,3,4,3,0 1,0	25	474	0	976
	Jul 17	4-13	7.3	265	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Aug 14	0- 5	7.5	77	1,0,1,0,2,0,0,0, 0,0	25	93	0	348
	Aug 14	5-12	7.1	70	1,0,1,1,1,0,0,0 1,0	25	100	0	199
	Sep 11	0- 7	7.5	58	0,0,0,0,0,0,0,1, 0,1	25	35	0	174
	Sep 11	7-12	7.0	200	0,0,0,1,1,1,0,0 0,0	25	84	0	279
	Oct 9	0-12	7.0	77	0,0,1,0,0,1,0,0 1,1	25	43	0	107
	Nov 6	0-13	7.5	0	0,0,0,0,0,0,0,0 0,0	25	0	0	0
Tropocyclops prasinus mex.	May 22	0-11	8.8	99	1,0,3,1,0,1,2,2, 0,0	25	116	0	290
	Jun 19	0- 4	6.7	0	2,2,2,1,0,0,1,0, 1,0	25	251	0	557
	Jun 19	4-13	7.1	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Jul 17	0- 4	8.3	84	0,0,0,3,0,0,2,0, 2,0	25	195	0	697
	Jul 17	4-13	7.3	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Aug 14	0- 5	7.5	929	1,4,5,2,3,4,0,4, 0,2	25	604	0	1045
	Aug 14	5-12	7.1	70	1,0,0,0,0,0,1,0, 2,1	25	100	0	299
	Sep 11	0- 7	7.5	174	1,1,1,1,0,0,1,0, 1,1	25	122	0	174
	Sep 11	7-12	7.0	0	0,0,1,2,0,0,1,0, 0,0	25	111	0	418
	Oct 9	0-12	7.0	154	1,1,3,2,3,4,1,0, 3,2	25	214	54	375
	Nov 6	0-13	7.5	133	0,0,1,1,2,1,0,0, 0,3	25	80	0	249

Appendix 2. cont'd

Species	Sampling date	Sampling layer m	Original Count: Percent of total sample volume counted	Original Count: Calculated density (no. m^{-3})	Recount: Raw Counts (no. ml^{-1} aliquot)	Recount: Percent of total sample volume	Recount: Calculated density (no. m^{-3}) 10 counts	lowest pair	highest pair
Holopedium gibberum	May 22	0-11	8.8	33	0,0,0,1,0,1,0 0,0	25	23	0	116
	Jun 19	0- 4	6.7	0	0,1,0,0,0,1,0,0 0,0	25	56	0	279
	Jun 19	4-13	7.1	108	0,0,2,0,1,2,1,3, 4,1	25	244	0	542
	Jul 17	0- 4	8.3	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Jul 17	4-13	7.3	0	0,1,0,0,0,0,0,0, 0,0	25	15	0	77
	Aug 14	0- 5	7.5	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Aug 14	5-12	7.1	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Sep 11	0- 7	7.5	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Sep 11	7-12	7.0	0	0,0,0,0,0,0,0,0, 1,0	25	28	0	139
	Oct 9	0-12	7.0	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Nov 6	0-13	7.5	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
Diaptomus minutus	May 22	0-11	8.8	1678	20,37,27,36,22 20,33,33,23,14	25	3078	1974	4239
	Jun 19	0- 4	6.7	627	3,4,6,9,5,5,5,6, 7,2	25	1449	697	2230
	Jun 19	4-13	7.1	596	5,5,6,5,3,2,5,4 2,10	25	819	348	1394
	Jul 17	0- 4	8.3	251	0,1,1,0,4,2,0,0, 1,0	25	251	0	836
	Jul 17	4-13	7.3	53	0,0,0,0,0,0,0,0, 0,2	25	31	0	115
	Aug 14	0- 5	7.5	697	1,1,3,2,2,1,4,0, 2,3	25	441	116	813
	Aug 14	5-12	7.1	70	1,0,0,0,0,0,0,2, 0,0	25	59	0	299
	Sep 11	0- 7	7.5	58	0,0,0,0,0,0,1,2, 0,0	25	52	0	261
	Sep 11	7-12	7.0	200	0,1,0,0,1,1,0,0, 2,1	25	167	0	418
	Oct 9	0-12	7.0	3496	45,44,48,45,36,39 27,48,45,41	25	4481	3377	5146
	Nov 6	0-13	7.5	7699	75,73,76,61,73,77 81,77,68,67	25	7247	6371	7865
Epischura lacustris	May 22	0-11	8.8	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Jun 19	0- 4	6.7	314	1,0,1,1,0,0,1,0, 2,2	25	223	0	557
	Jun 19	4-13	7.1	160	0,0,1,1,2,0,0,0, 0,0	25	62	0	232
	Jul 17	0- 4	8.3	0	0,0,0,0,0,0,0,0, 0,0	25	0	0	0
	Jul 17	4-13	7.3	53	1,0,1,0,1,0,1,0, 2,1	25	108	0	232
	Aug 14	0- 5	7.5	0	0,0,1,0,0,0,0,0, 0,0	25	23	0	116
	Aug 14	5-12	7.1	70	0,0,0,0,0,0,2,0, 0,0	25	40	0	199
	Sep 11	0- 7	7.5	0	0,0,1,0,0,0,1,0, 0,1	25	52	0	174
	Sep 11	7-12	7.0	0	0,1,0,0,0,0,0,0, 0,0	25	28	0	139
	Oct 9	0-12	7.0	154	0,1,0,0,0,0,0,0, 0,0	25	11	0	54
	Nov 6	0-13	7.5	0	0,0,0,0,0,2,0,1, 0,0	25	30	0	149