Leggett 1975) also supports the hypothesis pesented. The productivity of Lake Mephremagog has been carefully measured (Ross and Kalff 1975, Dermott 1974). These studies revealed that high planktonic productivity existed in the lake. This high productivity was associated with a pattern of early fish growth similar to that of Sunfish Lake. Although inconclusive, the data suggest that the growth rates observed in the two lakes were both the result of high planktonic productivity.

Sunfish Lake yellow perch exhibited strong size selectivity when feeding on Daphnia. This selection of larger individuals, higher in caloric content, has been well documented in the literature (Hall et al. 1970, Galbraith 1967, Brooks and Dodson 1966). In each case it was determined that selection was visual rather then by mechanical straining of swarms of Daphnia through the gill rakers. Werner and Hall (1974) determined that the sizes selected by the bluegill sunfish (Lepomis macrochirus) in laboratory tanks and in the field were optimal for each test condition. The measure of optimality was based on caloric return, density of prey (search time), and handling time. As densities decreased the bluegills became less size selective, choosing greater numbers of the smaller, but more abundant individuals. Therefore, the strong size selectivity displayed by Sunfish Lake yellow perch further supports indications of high zooplankton abundance.

The quality and quantity of food is of obvious importance in the determination of growth rate, but it is not the only factor. Temperature, pollution, heavy parasite loads, and population density have also been implicated and of these, temperature appears to be most important. Coble (1966) found the growth of yellow perch in South Bay, Lake Huron to show a marked relationship to mean water temperature at a depth of 20 feet. LeCren (1958), working with P. fluviatilis, found a correlation between total annual growth and surface water temperatures in Lake Windemere. Although temperature may be influencing the growth rate of Sunfish Lake yellow perch, any effects of temperature on growth would most likely be reflected in all age classes. Therefore, temperature could not be responsible for the size selective increases and decreases in the growth of juvenile fish observed in Sunfish lake and Lake Mephremagog. Temperature, no doubt contributes to the observed growth rates in these two lakes, but the effects of feeding still appears to be the most logical explanation for these size selective responses.

The steep decline in the growth rate of yellow perch in

Sunfish Lake between second and third year was probably not due to feeding. More likely it was the result of the attainment of sexual maturity and the redirection of surplus energetic input into the development of reproductive structures and increased fecundity. This argument assumes that sexual maturity occurs in the fish's third year (Scott and Crossman 1973). Although the timing of sexual maturity was not determined specifically for Sunfish Lake, there is evidence that initiation of sexual maturity is largely determined by age and not by growth or other external factors (Keast pers. comm.).

There are indications that this diet of zooplankton was not energetically beneficial, however, for the adult yellow perch population of Sunfish Lake. Following the attainment of sexual maturity, growth rates continued to fall at a relatively rapid rate. Adult growth rates in other lakes in which benthic organisms and fish constitute the diet fall less rapidly, and in two cases they appear to increase (figure 16). Similar divergence in growth rates were observed between planktivorous and piscivorous populations of lake trout in several Algonquin Park lakes (Martin 1951, 1966). It is possible that the planktivorous population of Sunfish Lake experienced decreased adult growth rates as a result of their diet. I should point out, however, that data was collected only over a two year period. Consequently the decline in growth rate between the fourth and fifth year classes may have been due to abnormally poor growth earlier in the life of year class five. These considerations must be kept in mind.

Further investigation of the effect of a zooplankton diet on the adult population should involve the measurement of gonad weight. This would give some indication of the reproductive potential of the mature individuals. If the zooplankton diet selected is having adverse effects on the growth performance of the adult fish, one might expect similar decreases in gonad weight and reproductive output. If such a decrease is not observed, then perhaps the decrease growth rate is due to some other factor.

Seasonal shifts in yellow perch diet were not observed in Sunfish Lake. Shifts generally occur when the benefits of feeding on the present food resource fall below potential benefits obtainable from another (Werner and Mittelbach 1981). These fluctuations in resource abundance are common in temperate lakes during spring and summer months (Mittelbach 1981b). Based on zooplankton data collected at Sunfish Lake, this lack of seasonal shifts is not unexpected. Although the dominant Daphnia species changed from *D. retrocurva* in May to *D. rosea* in July and September, the combined abundance of all *Daphnia* spp. did not change appreciably over the summer. According to Wynne-Edwards (1981), benthic invertebrate abundance in 1980 was high in May, declined from June to August, and increased again in September and November. Assuming that the timing of major invertebrate life cycle events is consistent from year to year (Keast 1977), one might expect shifts in diet to occur in May or September. Since these do not occur it can be assumed that either a) zooplankton populations represented a higher net energetic gain than did the benthos throughout the season; or b) something was preventing the yellow perch from utilizing the larger food items. This first possibility has already been examined; therefore, I will restrict further discussion to a consideration of possible restrictions to prey utilization.

Wynne-Edwards' (1981) survey of the benthic resource base of Sunfish Lake revealed a moderately diverse community closely associated with the presence of *Chara*. Pumpkinseed (*Lepomis gibbosus*) and rock bass (*Amboploites rupestris*) were both abundant in the lake and fed exclusivly on benthic organisms. These two points indicate that the benthic resource base was present and available to the fish population of the lake. It is possible, however, that it was not available to the yellow perch. Pumpkinseeds are a far more specialized benthic feeder than the yellow perch. With its suctorial mouth, the pumkinseed would be more adept at capturing benthic invertebrates in the Chara than the yellow perch with its larger, non-suctorial mouth (Keast 1965). Competition would be intensified by the restricted littoral zone, and the use of the abundant Chara as a potential refuge for the benthic organisms. As a result, the yellow perch could have been competitively excluded from the benthic resource. This hypothesis could be tested using large scale fish enclosures excluding benthic feeding competitors and observing changes in yellow perch diet.

An abundance of zooplankton would certainly lessen pressure to enter into competition for the benthic resource. In addition, competition for zooplankton in Sunfish Lake appeared to be small. Unlike Lake Opinicon, where Alosa pseudoharengus were present (Gibson 1974), no other planktivore inhabits the lake except the young-of-the-year for most species and the white sucker (Catostomas commersoni). The white sucker, however, did not appear to select any particular size of zooplankton based on qualitative observations made during stomach analysis of white suckers. By selecting only the largest Daphnia individuals, yellow perch are able to decrease niche overlap and competition.

Even assuming that yellow perch are excluded from the benthic resource, this still does not explain why a direct shift to piscivory was not observed. The apparant size of the fish population of Sunfish Lake would suggest an adequate young-oftheyear population on which to feed. Possibly experience with intermediate prey sizes is required before progression into a piscivorous feeding mode; however, Complak (1982) observed young yellow perch in Atkins lake, Ontario to move almost directly into piscivory from planktivory. Another possibility could be that the young-of-the-year and minnow populations of the lake are finding refuge from predators in the *Chara*. Such behavior has been observed in juvenile bluegill sunfish (Mittelbach 1981). This hypothesis could be tested by behavioral studies on predator avoidance by young fish in *Chara*.

CONCLUSION

My data clearly demonstrates that the adult yellow perch population of Sunfish Lake retained a juvenile diet consisting largely of zooplankton. This contrasts with most other published information on yellow perch feeding ecology. This diet illustates the flexibility and adaptiveness of feeding strategy of a fish species. Yellow perch morphological features such as jaw structure and dentition are designed for a "traditional" diet of large hard bodied food items or small fish, yet Daphnia tended to be the dominant prey item in Sunfish Lake. In an attempt to find an explanation for this unusual diet, I have examined the zooplankton resource base on which they were feeding. The conclusion drawn is that the diet selected, and the subsequent above average growth was due to a high abundance of zooplankton present in the lake.

An interesting follow-up study might involve a mathematical prediction of the diet of Sunfish lake based on available resource abundance data (Mittelbach 1981a). A high correlation between this predicted diet and the actual observed diet would lend support to the conclusion outlined above. I would predict, however, that deviations would occur in the adult age class diets due to competition. Optimal foraging models formulated thus far have been unable to include the effects of competition into their predicted foraging strategy. I believe that in Sunfish lake, the effect of competition for littoral zone organisms influenced foraging strategy selection. Therefore, more work is required to determine the magnitude of the effect of competition in Sunfish lake if a complete explanation of the observed yellow perch diet is to be found.

REFERENCES

Allanson, B.R. and J.E. Kerrich. 1961. A statistical method for estimating the number of animals found in field samples drawn from polluted rivers. Verh. Internat. Verein. Limnol. 14: 491-494.

Bagenal, T. and F.W. Tesch. 1978. Age and Growth. IN Methods for Assessment of Fish Production in Fresh Waters (T. Bagenal ed.) Blackwell Scientific Publications London, pp. 101-136.

Bhajan, W.R. 1970. Studies on the ecology of Bosmina longirostris in Sunfish lake. Ph.D. U. of Waterloo.

Brett, J.R., and T.D.D. Groves. 1974. Physiological Energities. IN "Fish Physiology" (W.S. Hoar and D.J. Randall, eds.) Vol. VIII. pp. 279-352. Academic Press. New York.

Brooks, J.L. (1959) Cladocera. IN "Freshwater Biology" (W.T. Edmonson (ed.)). John Wiley & Sons, New York pp. 587-656.

Brooks, J.L. and S.I. Dodson 1965. Predation, body size and composition of plankton. Science 150:28-35.

Brown, K.E. 1977. Feeding and growth performance of Yellow Perch (Perca flavescens) in relation to differing backgrounds of resources and potential competitor species. M.Sc. Quee's U.

Clady, M.D. 1974. Food habits of yellow perch, smallmouth bass and largemouth bass in two unproductive lakes in northern Michigan. Am. Mid. Nat. 91: 453-459.

Clemens, W.A., J.R. Dymond, N.K. Bigelow, F.B. Adamstone and W.J.K. Harkness. 1923. The food of Lake Nipigon fishes. Univ. Toronto Stud., Biol. Ser. No. 22, Pub. Ont. Fish. Res. Lab. 16: 171-188.

Clark, A.S. and J.C.H. Carter. 1974. Population dynamics of cladocerans in Sunfish Lake, Ontario. Can. J. Zool. 52:1235-1242.

Coble, D.W. 1965. On the growth of some Great Lakes fishes with special reference to temperature Ph.D. U. of Toronto. IN Nakashima and Leggett 1975.

__________. 1966. Dependence of total annual growth in yellow perch on temperature. J. Fish. Res. Bd. Can. 23:15-20.

Couey, E.M. 1935. Fish food studies of a number of Northeastern Wisconsin Lakes. Trans. Wis. Acad. Sci. Arts, and Lett. 29: 131-172.

Dermott, R. 1974. The benthic biomass and production of Lake Mephremagog, Quebec. M. Sc. McGill U.

Duthie, H.C. and J.C. Carter. 1970. The meromixis of Sunfish Lake, southern Ontario. J. Fish. Res. Bd. Can. 27: 847-856.

Erschmeyer, R.W. 1937. Some characteristics of a population of stunted perch. Papers Michig. Acad. Sc., Arts and Lett. 22: 613-628.

Ewers, L.A. 1933. Summary report of Crustacea used as food by fishes of the western end of Lake Erie. Trans. Am. Fish. Soc. 63: 379-390.

Galbraith, M.G. Jr. 1967. Size-selective predation on Daphnia by rainbow trout and yellow perch. Trans. Am. Fish. Soc. 96: 1-10.

Gibson, C.G.M. 1974. Seasonal abundance of cladocera and copepoda in Lake Opinicon. B. Sc. Queen's U.

Haines, T.A. 1973. Effects of nutrient enrichment and a rough fish population (carp) on a game fish population (smallmouth bass) Trans. Am. Fish. Soc. 102: 346-354.

Hall, D.J., W.E. Cooper, and E.E. Werner. 1970. An experimental approach to the production dynamics and structure of freshwater animal communities. Limnol. and Oceanogr. 15: 839-928.

Haney, J.F. and D.J. Hall. 1973. Sugar coated daphnia: A preservation technique for cladocera. Limnol. and Oceanogr. 18: 331-333.

Hasler, A.D. and J.E. Bardach. 1949. Daily migration in perch in Lake Mendota, Wisconsin. J. Wildlf. Mgt. 13:40-51.

Hyslop, E.J. 1980. Stomach contents analysis - a review of methods and their application. J. Fish. Biol. 17: 411-429.

Jobes, F.W. 1952. Age, growth and production of yellow perch in Lake Erie. Fishery Bulletin 70.

Keast, A. 1977. Diet overlaps and feeding relationships between year classes in the yellow perch (Perca flavescens). Env. Biol. Fish. 2: 53-70.

Keast, A. and D. Webb. 1966. Mouth and body form relative to feeding ecology in the fish fauna of a small lake, Lake Opinicon, Ontario. J. Fish. Res. Bd. Can. 23: 1845-1874.

Langford, R.R. and W.R. martin. 1940. Seasonal variations in stomach contents and rate of growth in a population of yellow perch. Trans. Am. Fish. Soc. 70: 436-440.

LeCren, E.D. 1958. Observations on the growth of perch (Perca fluviatilis L.) over twenty years with special reference to the effects of temperature and changes in population density. J. An. Ecology. 27:287-334.

Lind, O.T. 1974. Handbook of Common Methods in Limnology. C.V. Mosby Co. St. Louis.

MacArthur, R.H. and E.R. Pianka. 1966. On the optimal use of patchy environments. Amer. Natur. 100: 603-609.

Martin, N.V. 1951. A study of the lake trout, Salvelinus namaycush, in two Algonquin Park, Ontario lakes. Trans. Am. Fish. Soc. 81: 111-137.

__________. 1966. The significance of food habits in the biology, exploitation and management of Algonquin Park, Ontario, lake trout. Trans. Am. Fish. Soc. 95: 415-422.

McConnell, W.J. 1965. Relationship of herbione growth to rate of gross photosynthesis in microcosms. Limnol and Oceanogr. 10: 539-543.

Merritt, R.W. and K.W. Cummins. 1978. An Introduction to the Acquatic Insects of North America. Kendall/Hunt Publ. Co. Dubuque, Iowa. 441. p.

Mittelbach, G.G. 1981a. Foraging efficiency and body size: A study of optimal diet and habitat use by bluegills. Ecology 62: 1370-1386.

__________. 1981b. Patterns of invertebrate size and abundance in acquatic habitats. Can. J. Fish. Aquat. Sci. 38: 896-904.

Nakashima, B.S. and W.C. Leggett. 1975. Yellow perch (Perca flavescens) biomass responses to different levels of phytoplankton and benthic biomass in Lake Mephremagog, Quebec - Vermont. J. Fish. Res. Bd. Can. 32: 1785-1797.

Phillips, A.M., Jr. (1969) Nutrition, digestion, and energy utilization. IN "Fish Physiology" (W.S. Hoar and D.J. Randall, eds.) Vol. I, pp. 351-432. Academic Press, New York.

Pellay, T.V.R. 1952. A critique of the methods of study of food of fishes. J. zool. Soc. India. 4: 185-200. IN. Hyslop. 1980.

Prepas, E. 1978. Sugar-frosted Daphnia. An improved fixation technique for Cladocera. Limnol and Oceanogr. 23: 557-559.

Ricker, W.E. 1975. Computation and interpretation of biological statistics of fish populations. Bull. Fish. Res. Bd. Can. 199: 300 p.

Ricklefs, R.E. 1979. "Ecology." Chiron Press, New York. 966 p.

Ross, P.E. and J. Kalff. 1975. Phytoplankton production in Lake Mephremagog, Quebec. Verh. Int. Ver. Limnol. 19: 760-769.

Scott, W.B. and E.J. Crossman. 1973. Freshwater fishes of Canada. Bull. Fish. Res. Bd. Can. 184: 966 p.

Sreenivasa, M.R. and H.C. Duthie. 1973. The post-glacial diatom history of Sunfish Lake, Southwestern Ontario. Can. J. Bot. 51: 1599-1609.

Warren, C.E., J.H. Wales, G.E. Davis, and P. Doudoroff. 1964. Trout production in an experimental stream enriched with sucrose. J. Wildl. Mgt. 28: 617-660.

Werner, E.E. and D.J. Hall. 1974. Optimal foraging and the size selection of prey by the bluegill sunfish (Lepomis macrochirus). Ecology 55: 1042-1052.

Werner, E.E. and G.G. Mittelbach. 1981. Optimal foraging, field tests of diet choice and habitat switching. Amer. Zool. 21:813-829.

Wetzel, R.G. 1975. "Limnology". W.B. Saunders. Toronto. 743 p.

Wetzel, R.G. and G.E. Likens. 1979. Limnological Analysis. W.B. Saunders. Toronto. 357 p.

YELLOW PERCH - MAY COMBINED (AGE)

YEAR CLASS = 0-1 (N = 29-3)

YEAR	LENGTH	WEIGHT	Zoo	Chi	An	Zyg	Eph	Amp	Ter	Fish	OTHER
1980	61	2.0	84	10				5	1		
	65	2.6	10	10	10	70					
	65	2.6	15		49		0.1		80		
	61	2.1	95	5							
	63	2.1	EMPTY								
	59	1.7	60	40							
	55	1.7	100								
	65	2.5	14	14		70		2			
	65	2.4	80	20							
	58	1.5	95	5							
	58	1.5		25		75					
	63	2.2	45	3		25	25	2			
	67	2.6	20	50				15	15		
	68	2.8	100								
	75	3.6	10	70				20			
	70	3.0	55	15		10		10	10		
	67	2.5	EMPTY								
	64	2.2	100								
	68	2.6	45					55			
	68	2.8	40	45				5			
	68	2.7	40	60							
	67	2.6		70							30% AN TISSUE
	60	1.6	100								
	63	1.8	95	5							
	65	2.2	100								
	59	1.6	EMPTY								
	77	3.8	100								
	58	1.4	100								
	59	1.6	100								
			61.65	17.19	2.27	9.61	0.96	4.38	4.08	0	

AN TISSUE = 1.15

YELLOW PERCH MAY COMBINED (AGE)

YEAR CLASS = 2-3 (N= 21-3)

YEAR	LENGTH	WEIGHT	Zoo	Chi	An	Zyg	Eph	Amp	Ter	Fish	OTHER
1980	181	74.4	98	2							
	212	130.3	99	1							
	192	89.0	95	5							
1981	186	60.0	85	15							
	191	63.0	100								
	194	73.0	98	2							
	171	41.7		65					35		
	203	87.3		40			60				
	187	69.1	85	15							
	215	98.2	80						20		
	174	51.8	25	75							
	221	114.7	EMPTY								
	230	115.7	EMPTY								
	204	82.3	80	20							
	209	85.2	90.5	9							
	190	160.5	7						8		85% ORGANIC
	194	69.6	25	35							
	179	53.3	100								
	191	60.7	10	40						50	
	179	57.9	2	80							18% AN TISSUE
	180	57.1	EMPTY								
				22.44		0		0		2.78	
			59.97		0		3.33		3.5		

YEAR CLASS 4+ (N = 11)

YEAR	LENGTH	WEIGHT	Zoo	Chi	An	Zyg	Eph	Amp	Ter	Fish	OTHER
1980	233	171.3	90	10							
1981	255	197.0	98	2							
	252	191.0									100% DECAPOD
	254	171.0	100								
	246	172.0	97	3							
	259	189.0									100% DECAPOD
	247	175.0	96	4							
	214	112.0	86	8			6				
	209	98.0	97	3							
	250	215.8		0.5			1				98% DECAPOD
	230	122.2	15	60		5% AN TISSUE					20% PC.TISSUE
				8.23		0		0		0	
			61.72		0		.64		0		

DECAPOD = 27.09%

YELLOW PERCH JULY COMBINED (AGE)

YEAR CLASS 2 - 3 (N = 28-1)

YEAR	LENGTH	WEIGHT	Zoo	Chi	An	Zyg	Eph	Amp	Ter	Fish	OTHER
1980	206	165	EMPTY								
	203	117	75								25% AN. TISSUE
	215	128	90	10							
	189	93	100								
	159	45	95	5							
	155	39.9			30		2			60	8% DECAPOD CLAW
1981	194	67.3		5					5	90	
	202	95.0	90				5				5% AN. TISSUE
	178	63.3	2	38			60				
	198	88.2	100								
	186	68.3	100								
	214	101.9	100								
	198	86.1	100								
	212	110.1	100								
	203	93.1	100								
	198	89.2	100								
	202	89.4	100								
	192	77.9	100								
	188	77.1	100								
	196	90.4	100								
	191	79.0	100								
	183	77.1	98						1		1% AN. TISSUE
	194	87.7	100								
	204	93.4	100								
	182	75.7	100								
	194	90.4	100								
	180	70.0								100	
	192	80.5			100						
				2.15		0		0		9.26	
			79.62		4.41		0.26		2.44		

ANIMAL TISSUE = 1.15
DECAPOD = 0.30

YELLOW PERCH SEPT. COMBINED (AGE)

YEAR CLASS 0-1 (N = 14-2)

COND.	YEAR	LENGTH	WEIGHT	Zoo	Chi	An	Zyg	Eph	Amp	Ter	Fish	OTHER
8.9	1980	115	13.6	60	0.5			1.5				38% TRICHOPTERA(3.17)
9.4		113	13.6	100								
9.4		111	12.9	98				2				
8.7		66	2.5	55	45							
9.7		58	1.9	15	75				10			
8.7		139	23.4	EMPTY								
9.3		100	9.3	EMPTY								
10.1		96	8.9	10								90% AN.TISSUE (7.5)
9.7		98	9.1	10	55			15	20			
		97	9.0	8	30				55			7% HYDRACHNID (.58)
		64	2.1	40	20				40			
		62	2.2	20	40				40			
		62	1.9	50	50							
		60	1.7	40	60							
					31.29		0		13.75		0	
				42.16		0		1.54		0		

YEAR CLASS 2-3 (N = 22-5)

YEAR	LENGTH	WEIGHT	Zoo	Chi	An	Zyg	Eph	Amp	Ter	Fish	OTHER
1980	211	102.7	100								
	199	94.4	100								
	199	86.4	100								
	193	80.8	100								
	180	65.1	100								
	171	55.7			10						90% DECAPOD
	165	44.5	EMPTY								
	129	19.8	100								
	206	93.5									100% DECAPOD
	194	82.7	EMPTY								
1981	200	94.0	50							50	
	235	141.9	EMPTY								
	191	82.2	100								
	198	106.3	EMPTY								
	151	33.0	60								40% PLANT TISSUE(2.35)
	225	125.7								100	
	148	33.0	100								
	137	23.7	30	70							
	176	55.7	100								
	207	104.2	EMPTY								
	223	140.5	100								
	222	141.5	95								5% OLIGOCHEATE(0.29)
				4.12		0		0		8.82	DECAPOD = 11.18
			72.64		0.59		0		-		

YELLOW PERCH SEPT. COMBINED (AGE)

YEAR CLASS 4+ (N = 6-3)

YEAR	LENGTH	WEIGHT	Zoo	Chi	An	Zyg	Eph	Amp	Ter	Fish	OTHER
1930	253	223.5	EMPTY								
	256	247.7	EMPTY								
	254	222.2	EMPTY								
	253	222.8	100								
	246	211.1	100								
1931	220	119.8			35					65	
				0		0		0		21.67	
			66.67				0		0		

YELLOW PERCH JULY COMBINED (AGE)

YEAR CLASS 4+

YEAR	LENGTH	WEIGHT	Zoo	Chi	An	Zyg	Eph	Amp	Ter	Fish	OTHER
1930	264	241	75	25							
	247	182	50	50							
1931	225	119.3	5	60			1				34% AN. TISSUE
	238	118.3	75				20		2	3	
	230	135.7	100								
				27.0		0		0		0.6	AN. TISSUE = 6.8
			61.00		0		4.2		0.4		

MAY - PELAGIC

ORGANISM	SAMPLE No. (counts per Schindler trap)															Mean	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	$trap^{-1}$	M^3
Bosmina	64	44	180	1080	1141	2912	4450	1660	1970	5570	2240	2830	2250	1280	760	1766	58886
Copepoda	1440	1796	2210	2388	2135	1680	2850	2300	2060	2230	2140	2540	2530	2330	1060	2006	66863
D.leuchten-bergiana	0	0	0	12	21	14	0	20	0	0	20	20	0	10	0	6.9	230
D.retrocurva	176	168	140	972	672	441	480	150	220	860	210	480	410	90	60	334	11123
D.rosea	36	20	45	42	21	42	40	0	10	30	10	40	20	0	40	24.7	823

JULY - LITTORAL - RHS

ORGANISM	SAMPLE No. (counts per Schindler trap)															Mean	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	$trap^{-1}$	M^3
Bosmina	6	4	4	7	4	7	7	2	16	4	2	10	2	--	--	5.8	193
D.leuchten-bergiana	16	29	32	31	33	23	36	18	36	24	18	32	26	--	--	27.2	9067
D.rectrocurva	35	58	102	83	177	48	107	78	204	140	114	142	26	--	--	102	3416
D.rosea	132	79	125	74	166	142	189	96	168	226	156	292	4	--	--	145	4843

JULY LITTORAL - TEL

	SAMPLE NO. (counts per Schindler trap)															Mean	
ORGANISM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	$trap^{-1}$	M^3
Bosmina	8	4	8	8	2	4	0	8	4	4	0	--	--	--	--	4.4	150
Copepoda	--	--	--	--	--	--	710	1045	845	896	1292	--	--	--	--	1014	33817
Dlleuchten-bergiana	56	80	56	88	70	40	52	104	36	84	116	--	--	--	--	71.1	2370
D.rectrocurva	132	120	156	108	34	128	144	108	80	164	236	--	--	--	--	128	4273
D.rosea	614	206	522	648	346	356	744	635	316	844	1220	--	--	--	--	586	19550

SEPT. PELAGIC

	SAMPLE NO. (counts per Schindler trap)															Mean	
ORGANISM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	$trap^{-1}$	M^3
Bosmina	0	1	2	0	0	0	0	0	0	0	0	--	--	--	--	0	0
Copepoda	243	318	424	584	436	356	292	300	330	303	46	--	--	--	--	330	10006
D.leuchten-bergiana	21	31	76	120	140	100	204	32	32	12	5	--	--	--	--	70.3	2130
D.retrocurva	1	60	138	316	244	292	328	198	220	195	37	--	--	--	--	184	5591
D.rosea	29	262	366	672	512	632	264	164	246	167	28	--	--	--	--	303	9206

SEPTEMBER - LITTORAL RHS

	SAMPLE NO. (counts per Schindler trap)															Mean	
ORGANISM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	$trap^{-1}$	M^3
Bosmina	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	0	0
Copepoda	428	476	474	464	432	612	555	573	788	543	608	996	--	--	--	579	19300
D.leuchten-bergiana	56	54	74	50	36	54	42	42	60	60	48	57	--	--	--	53	1758
D.retrocurva	18	14	6	14	2	0	0	6	8	0	0	6	--	--	--	62	207
D.rosea	158	234	196	82	60	123	81	105	104	162	82	150				128	4270

SEPTEMBER - LITTORAL - TEL

	SAMPLE NO. (counts per Schindler trap)															Mean	
ORGANISM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	$trap^{-1}$	M^3
Bosmina	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Copepoda	270	270	316	528	468	440	272	287	366	597	387	861	369	372	501		
D.leachten-bergiana	40	78	44	60	64	116	60	72	57	57	51	75	54	60	57		
D.rectrocurva	21	12	6	56	12	100	24	45	30	54	12	63	9	9	9		
D.rosea	106	216	80	320	276	392	102	270	261	432	171	426	111	138	57		