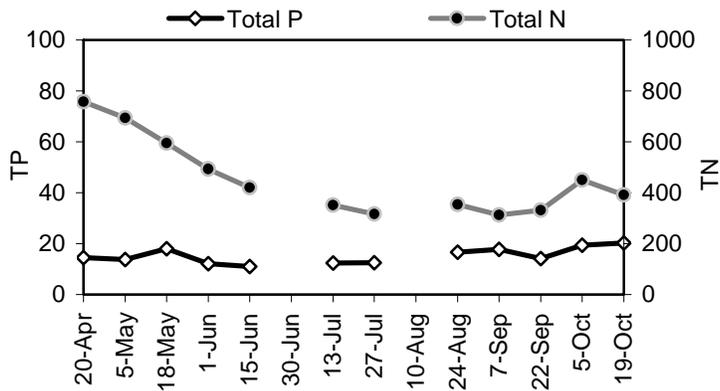
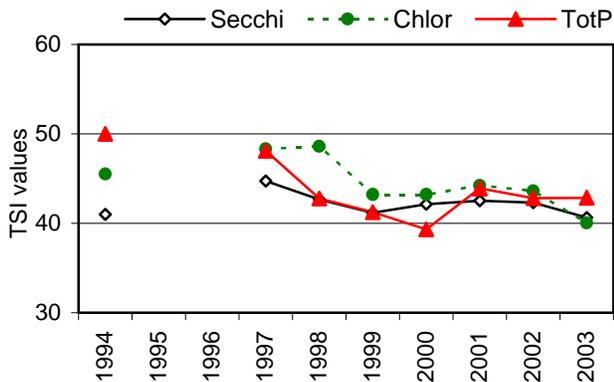


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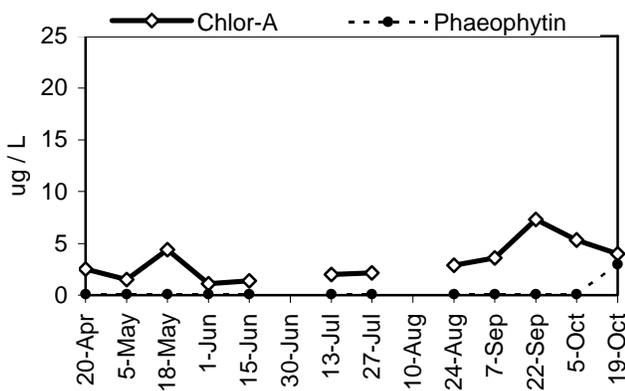
Nutrient Analysis



TSI Ratings



Chlorophyll a Concentrations (ug/L)



peaks in winter that correspond to rainfall events, and a small decline over the summer through early fall.

Nutrient Analysis and TSI Ratings

Total nitrogen decreased while total phosphorus remained constant for the early part of the season, but remained essentially constant after mid-July. The N:P ratio ranged from 18 to 52. TSI values for 2003 were similar to the previous four years, with the indicators close to each other in the mesotrophic range.

Chlorophyll and Algae

Chlorophyll content remained relatively low until mid-September and then dropped again in October. The September peak was caused by the bluegreen *Anabaena*, followed by the diatom *Melosira*. Algae in the lake earlier in the season included various species of cryptophytes and chrysophytes such as *Dinobryon*.

Common algae	Group
<i>Anabaena</i> sp.	bluegreen
<i>Dinobryon</i> sp.	chrysophyte
<i>Botryococcus braunii</i>	chlorophyte

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2003 Level II Data

Date (2003)	Temp (°C)	Secchi (m)	Chl-a (µg/l)	TP (µg/l)	TN (µg/l)	Algae Obsv.	N:P	Calculated TSI			Notes
								Secc	chl-a	TP	
20-Apr	11.5	3.8	2.5	14.5	757		52	40.7	39.7	42.7	
5-May			1.5	13.8	693		50		34.5	42.0	K. Messick collected sample from dock. No observations.
18-May	11.5	3.7	4.4	18.0	595		33	41.1	45.1	45.8	
1-Jun	17.5	3.5	1.1	12.1	493		41	41.9	31.5	40.1	
15-Jun	18.5	4.5	1.4	11.0	420		38	38.3	33.9	38.7	
30-Jun											No sample.
13-Jul	21.5	4.1	2.0	12.4	352		28	39.6	37.4	40.5	
27-Jul	24.0	4.1	2.1	12.5	317		25	39.6	38.0	40.6	
10-Aug											No sample.
24-Aug	22.5	4.5	2.9	16.6	354		21	38.3	41.0	44.7	
7-Sep	22.0	4.1	3.6	17.8	313	1	18	39.6	43.1	45.7	
21-Sep	18.0	3.0	7.3	14.2	332	1	23	44.1	50.1	42.4	
5-Oct	17.0	3.2	5.3	19.5	451	2	23	43.2	47.0	47.0	
19-Oct	14.5	3.1	4.0	20.3	392		19	43.7	44.2	47.6	
	Temp (°C)	Secchi (m)	Chl-a (µg/l)	TP (µg/l)	TN (µg/l)	Algae Obsv.	N:P	Calculated TSI			
								Secc	chl-a	TP	
Mean	18.0	3.8	3.2	15.2	455.8	1.3	31	40.9	40.5	43.2	TSI Average = 42.1
Median	18.0	3.8	2.7	14.4	406.0	1	27	40.7	40.4	42.6	
Min	11.5	3.0	1.1	11.0	313.0	1	18	38.3	31.5	38.7	
Max	24.0	4.5	7.3	20.3	757.0	2	52	44.1	50.1	47.6	
Count	11	11	12	12	12	3	12	11	12	12	