Star

Lake Overview

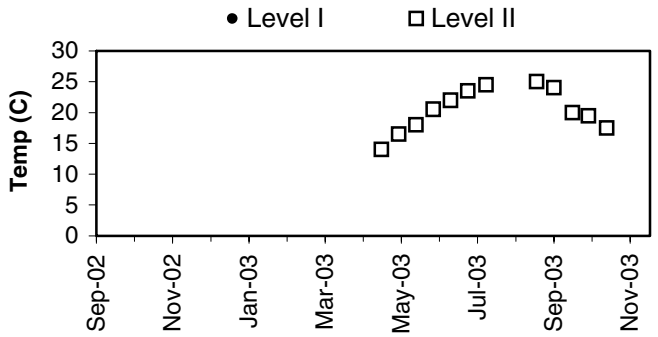
Volunteer monitoring began at Star Lake in the 1980s and has continued through 2003, with gaps in 1992 and 1994. The data indicate this lake is relatively low in primary productivity (high oligotrophic) with very good water quality. Since the lake surface makes up 9% of the drainage area, direct precipitation is less important than watershed inputs. Land use analysis of 2002 aerial photographs showed over 92% of the surrounding watershed has been developed for uses other than agriculture or forestry.

Star Lake has a public access boat launch, and the lake has been recently treated for a Eurasian milfoil infestation. Residents should watch aquatic plants growing nearshore to catch remaining patches of this, Brazilian elodea or other aquatic noxious weeds.

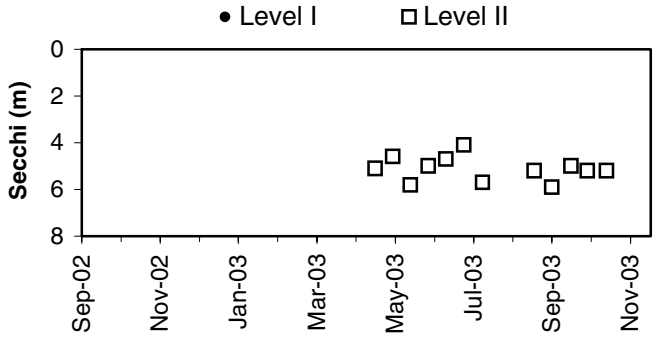
Physical Parameters

Secchi transparency was measured from April - October, ranging from 4.1 to 5.9m. Surface water temperatures reached 25.0 degrees Celsius during the same period. Water level and precipitation observations were not recorded.

Lake Temperature



Secchi Depth

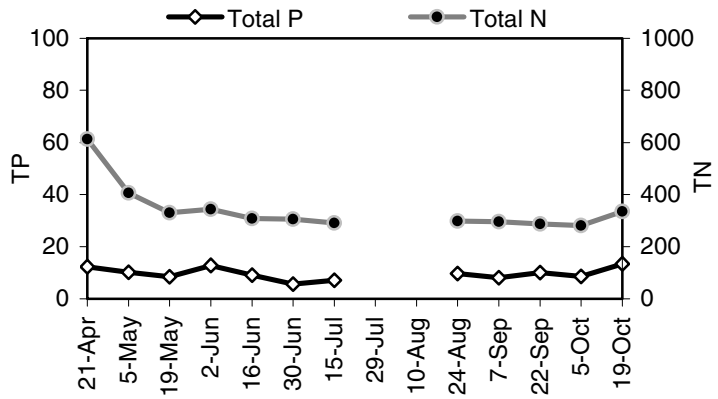


Lake Level and Precipitation

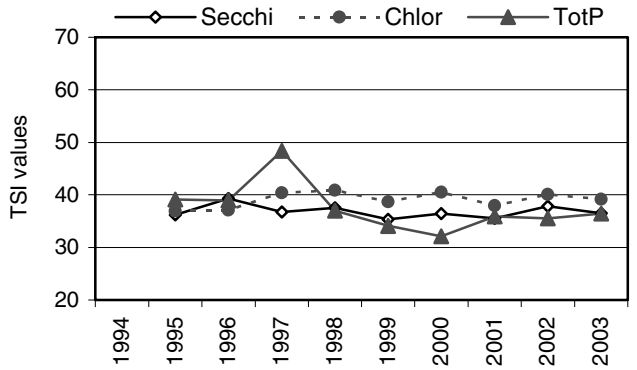
No Data Available

Star

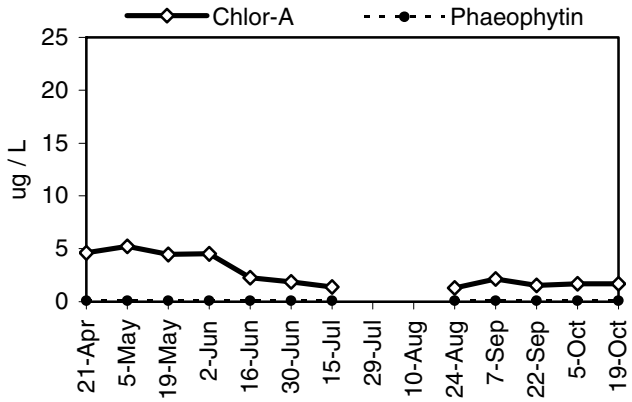
Nutrient Analysis



TSI Ratings



Chlorophyll a Concentrations (ug/L)



Common algae	Group
Botryococcus braunii	chlorophyte
Dinobryon spp.	chrysophyte
Anabaena sp.	bluegreen

Nutrient Analysis and TSI Ratings

Total nitrogen decreased through spring and then remained steady, while total phosphorus did not vary much over the period. The N:P ratio ranged from 25 to 54. In 2003 the average TSI indicators were fairly close together in the upper range of oligotrophy.

Chlorophyll and Algae

Chlorophyll concentration remained low through the entire sample season, but values were slightly higher in spring than the rest of the period. Algae in the spring plankton were dominated by the colonial chlorophyte *Botryococcus braunii* and the chrysophyte *Dinobryon*. Other algae found frequently through the sample period included the bluegreen *Anabaena*, the chlorophytes *Ankistrodesmus* and *Pediastrum*, and the chrysophyte *Gloeobotrys*.

No Level I Data
Available For This Lake

Star **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	
21-Apr	14.0	5.1	4.6	12.3	613	2	50	36.5	45.6	40.4	
5-May	16.5	4.6	5.2	10.2	406	2	40	38.0	46.8	37.7	
19-May	18.0	5.8	4.5	8.5	330	2	39	34.6	45.2	35.0	
2-Jun	20.5	5.0	4.5	12.8	343	2	27	36.8	45.3	40.9	
16-Jun	22.0	4.7	2.3	9.1	308	2	34	37.7	38.6	36.0	
30-Jun	23.5	4.1	1.9	5.7	306	2	54	39.6	36.7	29.3	
15-Jul	24.5	5.7	1.4	7.2	291	2	40	34.9	33.9	32.6	
29-Jul											No sample.
11-Aug											No sample.
25-Aug	25.0	5.2	1.3	9.7	298	2	31	36.2	33.1	36.9	
8-Sep	24.0	5.9	2.1	8.1	295	2	36	34.4	38.0	34.3	
23-Sep	20.0	5.0	1.6	10.1	287	1	28	36.8	34.9	37.5	
6-Oct	19.5	5.2	1.7	8.6	281	1	33	36.2	35.8	35.2	
21-Oct	17.5	5.2	1.7	13.4	335	1	25	36.2	35.8	41.6	
	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	20.4	5.1	2.7	9.6	341.1	1.8	36	36.5	39.1	36.4	**TSI Average = 37.4**
Median	20.3	5.2	2.0	9.4	307.0	2	35	36.3	37.4	36.5	
Min	14.0	4.1	1.3	5.7	281.0	1	25	34.4	33.1	29.3	
Max	25.0	5.9	5.2	13.4	613.0	2	54	39.6	46.8	41.6	
Count	12	12	12	12	12	12	12	12	12	12	