

# Stephens Lake

Boone County

2006 DATA

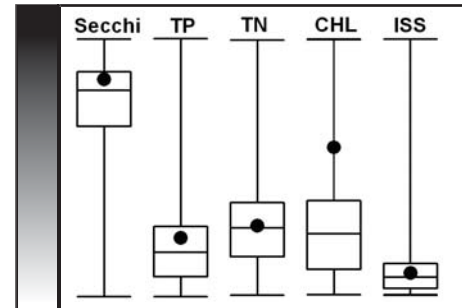


Date	Secchi (inches)	TP (µg/L)	TN (µg/L)	CHL (µg/L)	ISS (mg/L)
5/15	37	38	670	15.9	4.2
6/11	34	46	750	25.9	4.4
7/1	24	66	870	87.6	4.1
8/6	32	56	700	31.9	2.3
<b>Mean</b>	<b>31</b>	<b>50</b>	<b>744</b>	<b>32.8</b>	<b>3.6</b>

2006 SUMMARY

Stephens lake was sampled four times in 2006. An algae bloom was apparently in progress when the July 1 sample was collected. As a result, the chlorophyll concentration on that day was quite high, at more than three times the maximum value observed last year. The seasonal geometric mean chlorophyll concentration was also three times the mean of last year. Though the mean phosphorus concentration was 14 µg/L higher in 2006 than 2005, a doubling of the chlorophyll to phosphorus ratio indicates that the algae were better suited to utilize their available resources in 2006.

Chlorophyll concentrations were higher than observed in 75% of Missouri lakes. This led to a Secchi transparency slightly lower than the median. Aside from the high relative chlorophyll concentrations and the reduced Secchi, other parameters were at or near the median for Missouri lakes.



Relative Rank Graph  
See page 11 for details

TRENDS

The maximum observed chlorophyll concentration in 2006 was nearly five times the minimum. Nitrogen, phosphorus and suspended sediments varied by only about 30%, which is surprisingly stable given the high chlorophyll variability. Secchi transparency only varied 7 inches above or below the 2006 mean.

