

Long Branch Lake - 2001 Data

Glacial Plains Region

Long Branch Lake is a large lake (2,435 acres) located in Macon County. Grassland/pasture, crop land and forest make up 37%, 34% and 22% of the watershed, respectively. The lake is an important recreational resource and a drinking water reservoir.

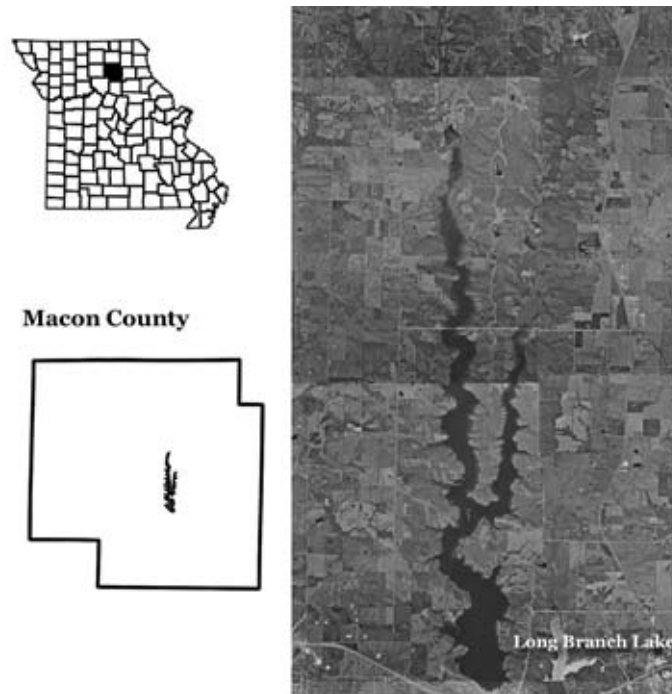


Figure 38. Location of Long Branch Lake.

2001 Results

Figure 39 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Longbranch Lake during the 2001 sampling season. The descriptive statistics appear in Table 17. A brief description of these results:

- Eight samples were collected from April 20 to September 14.
- Nitrogen and phosphorus decreased throughout the season. Aside from an early season spike, values for chlorophyll and ISS showed little variation.
- Longbranch Lake was eutrophic, based on geometric means for chlorophyll, nitrogen and phosphorus.
- There was a trend toward increasing Secchi values as the sampling season progressed, though the change was only 17 inches.

Table 17. Descriptive statistics for Long Branch Lake - 2001.

Parameters	# of Samples	Geometric			
		Mean	Minimum	Maximum	Median
Secchi Transparency (inches)	8	27	18	35	30
Phosphorus ($\mu\text{g/L}$)	8	48	32	78	47
Nitrogen ($\mu\text{g/L}$)	8	937	740	1160	990
Chlorophyll ($\mu\text{g/L}$)	8	14.2	5.2	41.8	15.1
ISS (mg/L)	8	4.7	3.4	13.2	4.1

ISS=Inorganic Suspended Solids

Samples were collected between April 20 and September 14

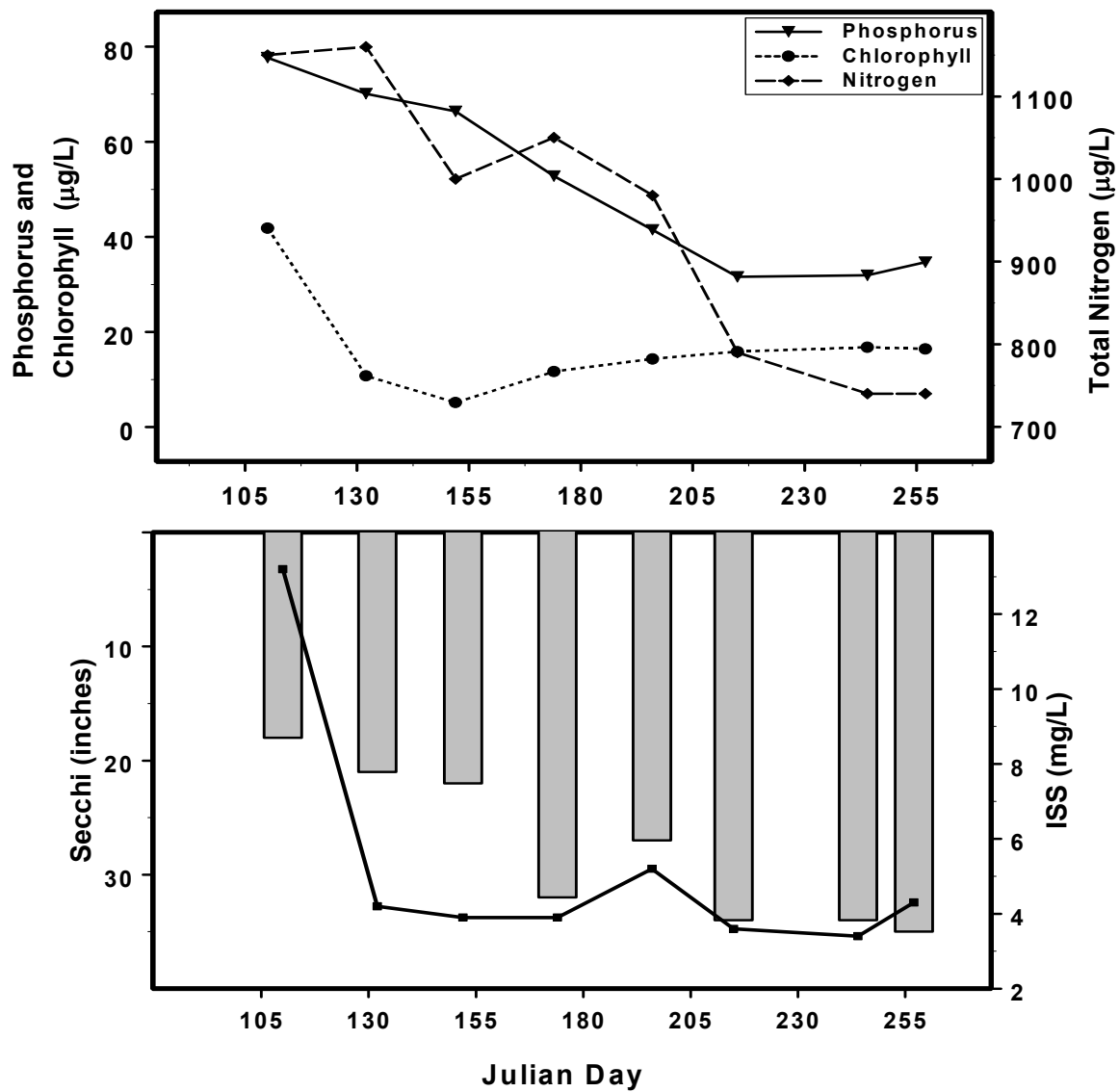


Figure 39. Seasonal fluctuations of parameters for Long Branch Lake - 2001. Bars represent Secchi, line represents ISS.