

Clearfork Lake

Region - Osage Plains

Located in Knob Noster State Park in Johnson County, this lake is owned and operated by the Missouri Department of Natural Resources. The lake is 16 acres in size and has a maximum depth of approximately 15 feet near the dam.

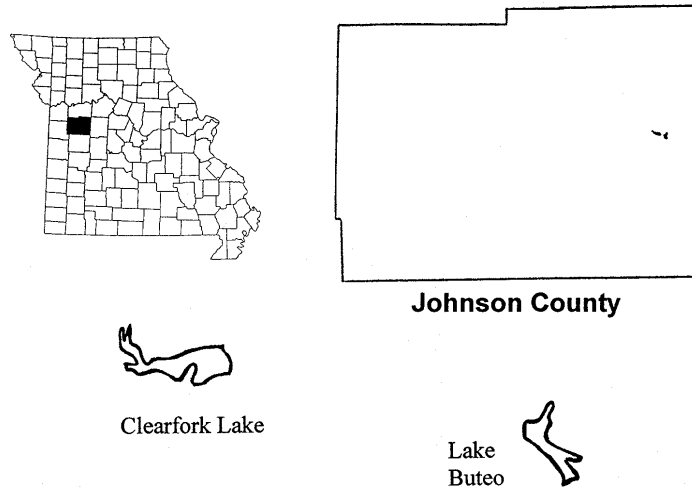


Figure 17. Location of Clearfork Lake.

2000 Results

Figure 18 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids, and Secchi transparency varied in Clearfork Lake during the 2000 sampling season. A brief description of these results are:

1. Five samples were collected, the first sample on 6-7 and the last sample on 9-15.
2. Inorganic suspended solids values are low considering the elevated nutrient values.
3. Nitrogen values are high. Elevated nutrient values are commonly associated with elevated inorganic suspended solids values, but not the case on this lake. Further sampling and investigation of the watershed may provide clues as to why.
4. There is a high chlorophyll to phosphorus ratio. May indicate that phosphorus is in a form that is readily available to the algae.
5. Average values measured for chlorophyll and nitrogen were hypereutrophic and average values for phosphorus were in the eutrophic range.

Table 8. Descriptive statistics for Clearfork Lake - 2000.

Parameters	Average	Median	Minimum	Maximum
Chlorophyll ($\mu\text{g/L}$)	60.1	53.8	27.4	94.5
Nitrogen ($\mu\text{g/L}$)	1287	1130	920	2005
Phosphorus ($\mu\text{g/L}$)	69	68	51	83
ISS (mg/L)	1.7	1.6	0.9	2.9
Secchi (inches)	27	26	14	40

ISS = Inorganic Suspended Solids

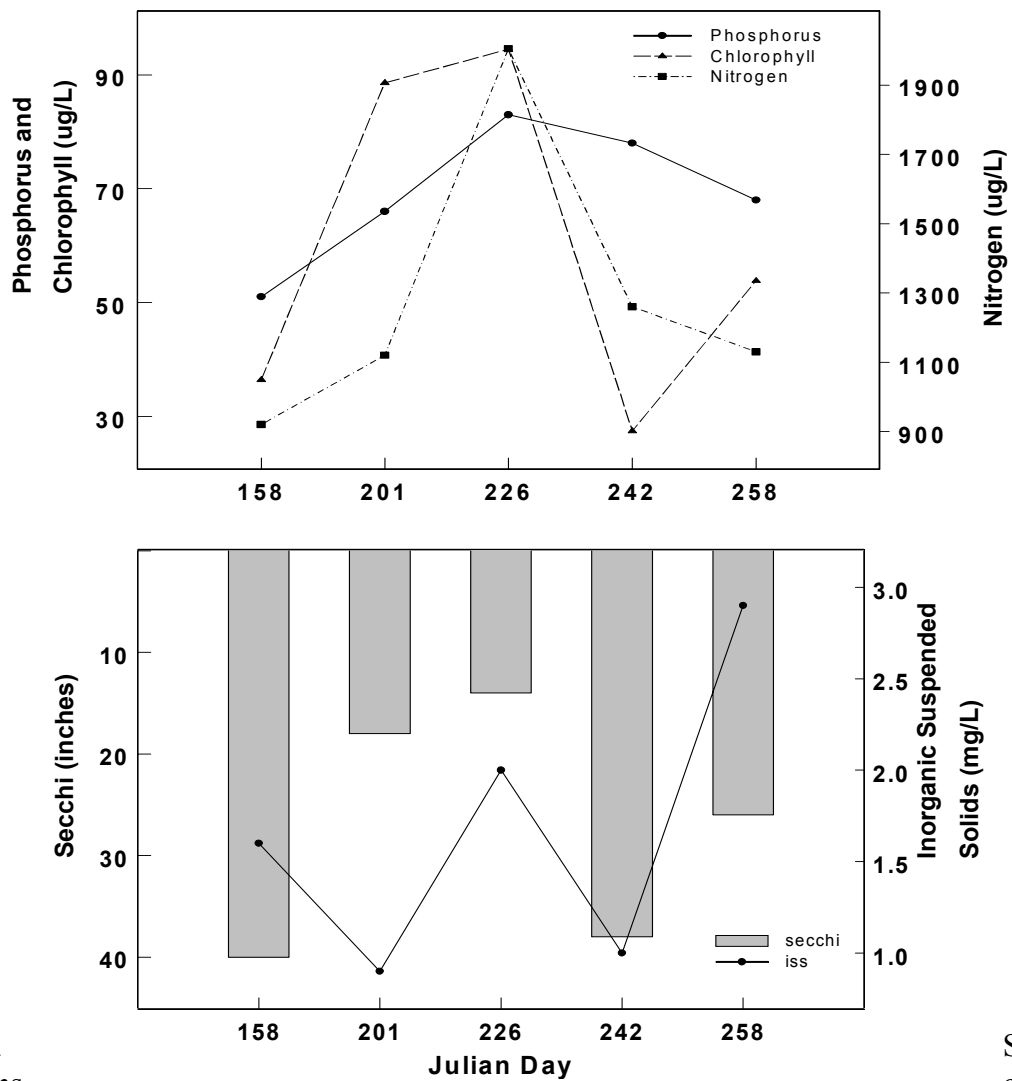


Figure 18. Seasonal fluctuations of parameters in Clearfork Lake - 2000.

Seasonal of