

Creve Coeur Lake

Region - Ozark Border

Creve Coeur is a 320 acre lake that is located in the Missouri River floodplain, where the soil is erodible and nutrient rich. Even though the lake is part of a 1,141 acre park, the area surrounding the lake is urban. Creve Coeur Lake differs from all of the other lakes in the program in that it is not a reservoir but an oxbow lake. Having once been part of the Missouri River, this lake is now about two miles from the present channel, separated over time by the natural meandering of the river.



Figure 19. Location of Creve Coeur Lake.

2000 Results

Figure 20 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids, and Secchi transparency varied in Creve Coeur Lake during the 2000 sampling season. A brief description of these results are:

- ▶ Eight samples were collected, the first on 4-22 and the last on 9-16.
- ▶ Average values for all parameters, except Secchi transparency, were high relative to most lakes in the program. Due to the fact that this lake is an oxbow in the nutrient rich soils of the floodplains, one would expect it to have these elevated values and low Secchi readings. See page 69 for trend analysis.
- ▶ Average values measured for phosphorus and chlorophyll were in the hypereutrophic range and average values for nitrogen were in the eutrophic range.

Table 9. Descriptive statistics for Creve Coeur Lake - 2000.

Parameters	Average	Median	Minimum	Maximum
Chlorophyll ($\mu\text{g/L}$)	60.9	68.4	16.5	87.3
Nitrogen ($\mu\text{g/L}$)	1035	965	750	1360
Phosphorus ($\mu\text{g/L}$)	184	194	115	213
ISS (mg/L)	28.4	27.3	14.3	48.2
Secchi (inches)	11	10	7	16

ISS = Inorganic Suspended Solids

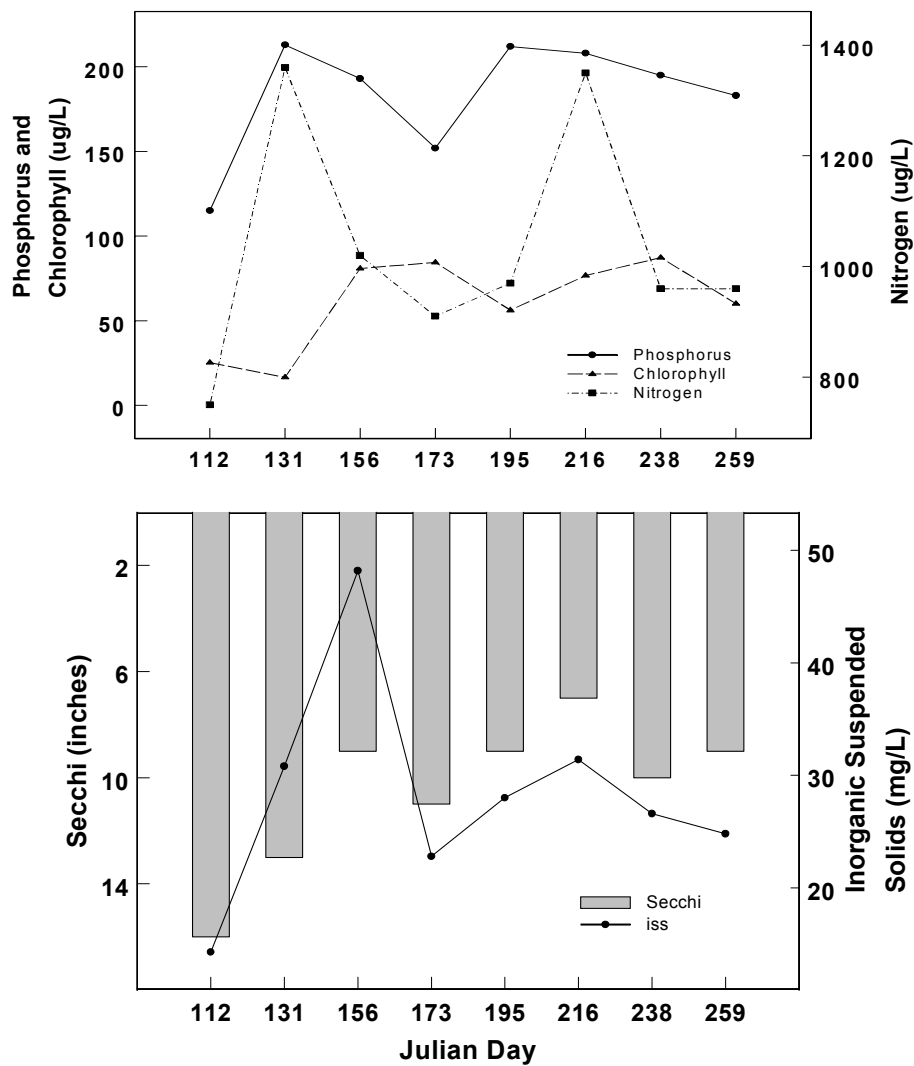


Figure 20. Seasonal fluctuations of parameters in Creve Coeur Lake - 2000.