

## Buteo Lake

Region - Osage Plains

Buteo Lake is located in Knob Noster State Park in Johnson County. The lake is 8 acres in size and is relatively shallow (maximum depth < 10 feet). This lake is owned by the Missouri Department of Natural Resources.

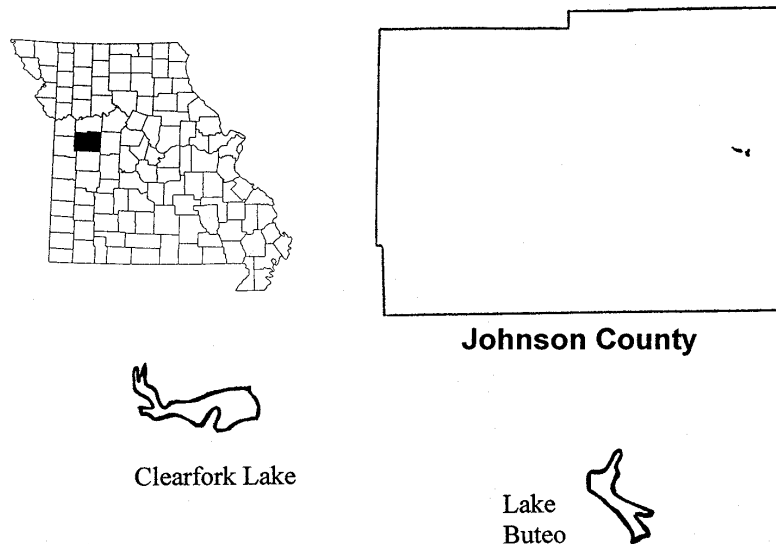


Figure 15. Location of Buteo Lake.

### 2000 Results

Figure 16 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids, and Secchi transparency varied in Buteo 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. Increase of nutrients and inorganic suspended solids on the last sample may be indicative of the beginning of the turnover process. (See page 12 for further explanation of the turnover process).
3. This is the second year that Buteo was sampled. There were no significant changes in the parameters from last year's sampling. More samples will be needed to make any statements about trends or annual variations.
4. Average phosphorus, nitrogen and chlorophyll values were in the eutrophic range.

Table 7. Descriptive statistics for Buteo Lake - 2000.

Parameters	Average	Median	Minimum	Maximum
Chlorophyll ( $\mu\text{g/L}$ )	11.9	12.65	8.3	13.6
Nitrogen ( $\mu\text{g/L}$ )	666	620	580	800
Phosphorus ( $\mu\text{g/L}$ )	34	33	32	40
ISS (mg/L)	2.9	2.6	2.4	3.8
Secchi (inches)	46	46	37	53

ISS = Inorganic Suspended Solids

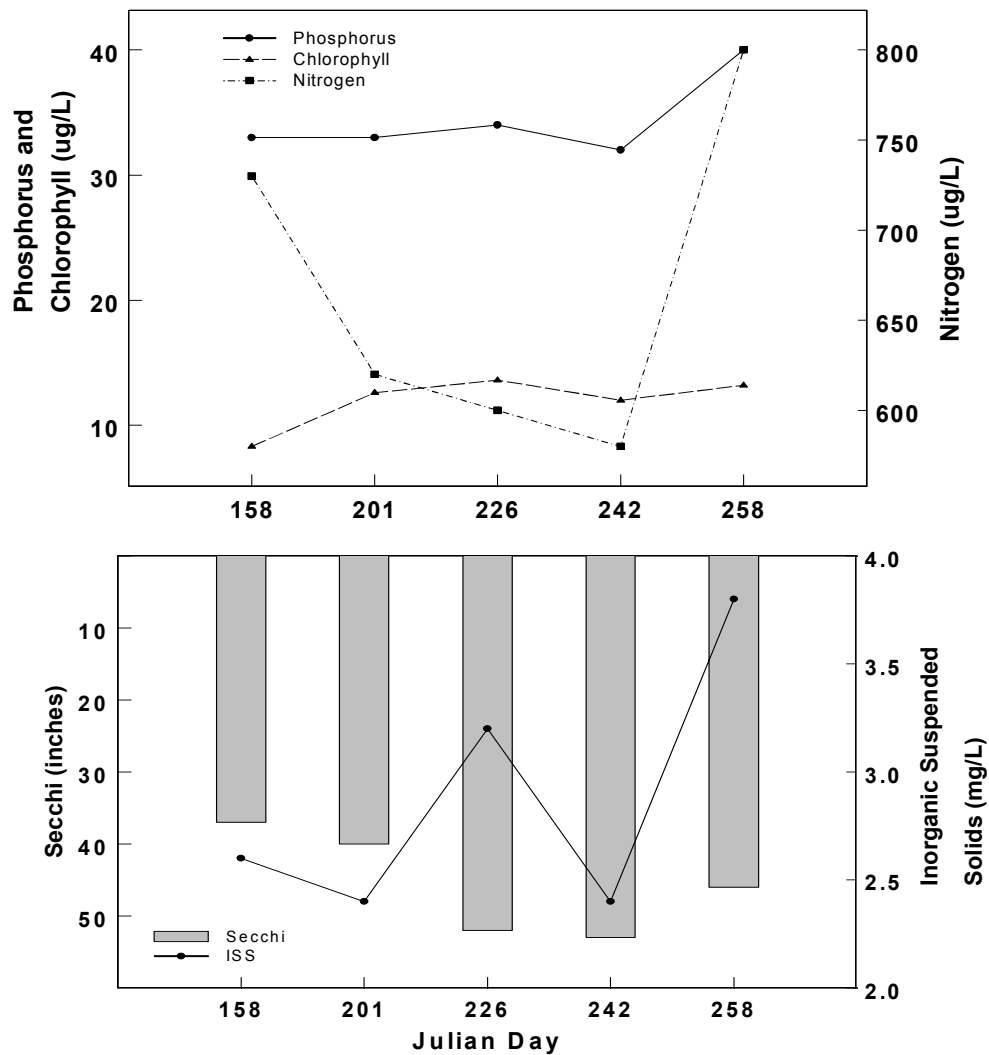


Figure 16. Seasonal fluctuations of parameters in Buteo Lake - 2000.