

## Little Dixie Lake

Region - Ozark Border

Little Dixie Lake is located in Callaway County and is owned and managed by the Missouri Department of Conservation. This 200 acre lake has a watershed of 2,315 acres in size and is approximately 15% forest, 35% grassland and 35% crop.

Figure 36. Location of Little Dixie Lake.

### 1999 Results

Figure 37 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids, and Secchi transparency varied in Little Dixie Lake during the 1999 sampling season. A brief description of these results are:

- ▶ Decrease in nutrient concentrations over the course of sampling season is a normal pattern.
- ▶ Parameters showed moderate variability (due to late start in sampling) with exception of inorganic suspended solids which displayed low variability.
- ▶ First two Secchi readings were shallow, considering the low inorganic suspended solids and chlorophyll values. It is possible that some very fine inorganic suspended solids may not get caught on the filter and not be reflected in values measured.
- ▶ Average values measured for phosphorus, nitrogen and chlorophyll were in the eutrophic range.

Table 18. Descriptive statistics for Little Dixie Lake - 1999.

Parameters	Average	Median	Minimum	Maximum
Chlorophyll ( $\mu\text{g/L}$ )	11.1	12.2	4.9	15.3
Nitrogen ( $\mu\text{g/L}$ )	614	590	470	840
Phosphorus ( $\mu\text{g/L}$ )	47	40	32	80
ISS (mg/L)	3.2	2.8	1.8	5.0
Secchi (inches)	34	32	24	46

ISS = Inorganic Suspended Solids

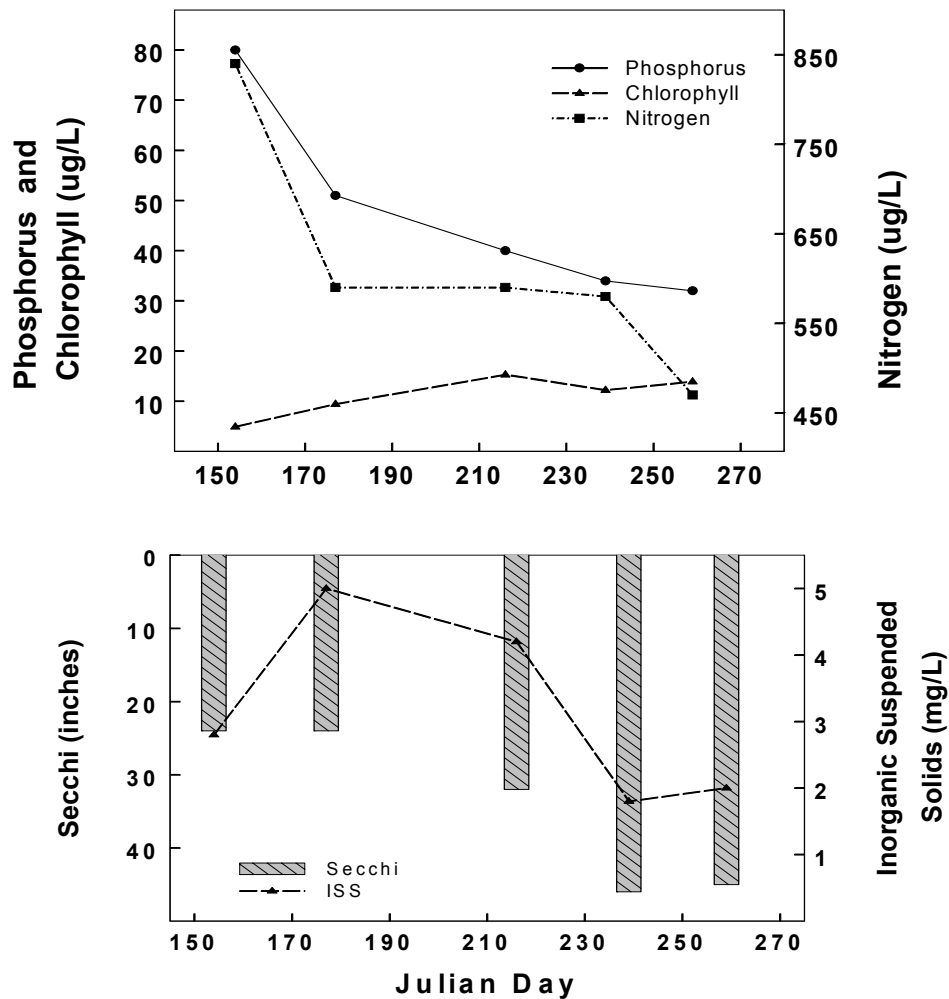


Figure 37. Seasonal fluctuations of parameters in Little Dixie Lake - 1999.