

Bull Shoals Lake

Region - Ozark Highlands

Bull Shoals Lake is approximately 45,440 acres in size, the majority of which is located in Arkansas. It is the last of four reservoirs found in the White River System (it is preceded by Taneycomo, Table Rock and Beaver lakes).

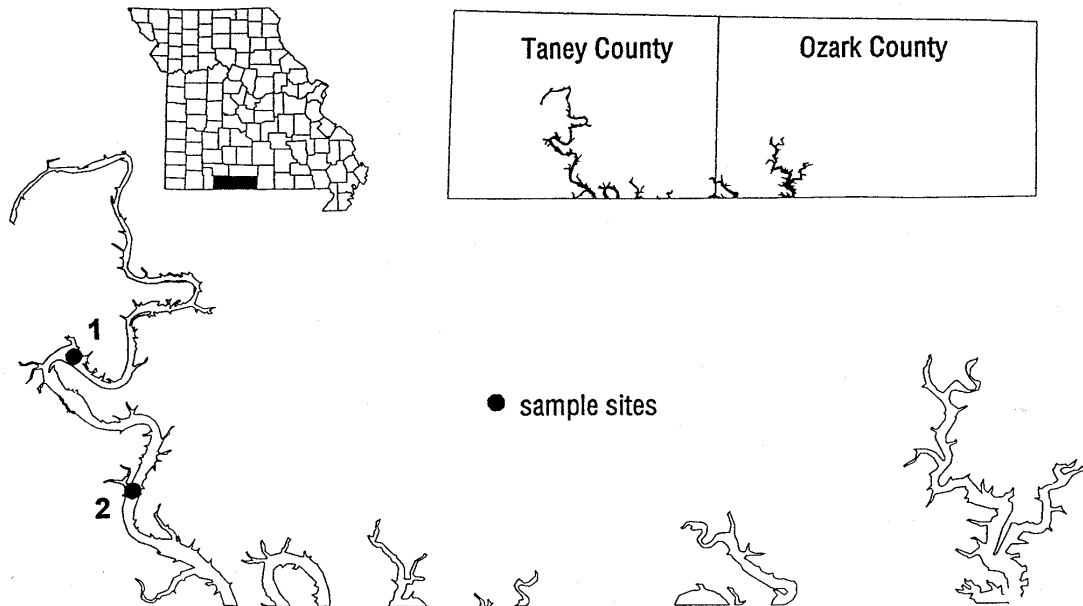


Figure 12. Location of sample sites on Bull Shoals Lake.

2000 Results

Figures 13 and 14 show how the parameters phosphorus, nitrogen, algal chlorophyll, and Secchi transparency varied in Bull Shoals Lake during the 2000 sampling season. A brief description of these results are:

- ▶ Six samples were collected, the first on 4-29 and the last on 9-17.
- ▶ While parameters did fluctuate, overall seasonal variability was low.
- ▶ Average phosphorus, chlorophyll and nitrogen values were in the mesotrophic range for both sites, except Site 2 nitrogen was in the oligotrophic range.
- ▶ Nutrient and chlorophyll values at Site 2 were lower than at Site 1, indicating a slight longitudinal gradient of increasing water quality as you move away from Lake Taneycomo's Powersite dam.
- ▶ Bull Shoals has been in the program since 1994, but sampling has not occurred in the same sites, so there are not enough data from the same site to do long term comparison.

Table 5. Descriptive statistics for Site 1 on Bull Shoals Lake - 2000.

Site 1	Average	Median	Minimum	Maximum
Chlorophyll ($\mu\text{g/L}$)	6.4	6.0	3.2	10.0
Nitrogen ($\mu\text{g/L}$)	342	345	250	460
Phosphorus ($\mu\text{g/L}$)	22	21	17	27
Secchi (inches)	72	70	52	95

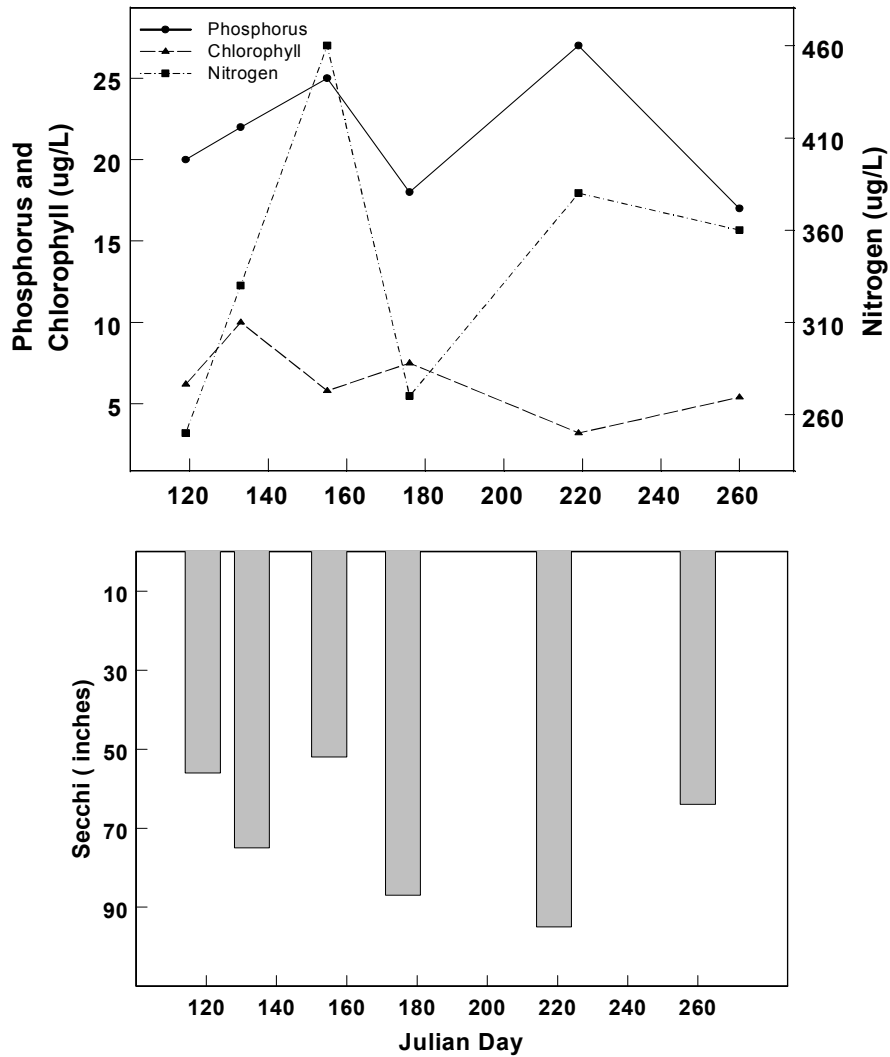


Figure 13. Seasonal fluctuations of the parameters at Site 1 on Bull Shoals Lake - 2000.

Table 6. Descriptive statistics for Site 2 on Bull Shoals Lake - 2000.

Site 2	Average	Median	Minimum	Maximum
Chlorophyll ($\mu\text{g/L}$)	5.0	4.7	3.4	7.6
Nitrogen ($\mu\text{g/L}$)	234	226	190	290
Phosphorus ($\mu\text{g/L}$)	16	16	12	23
Secchi (inches)	88	89	56	127

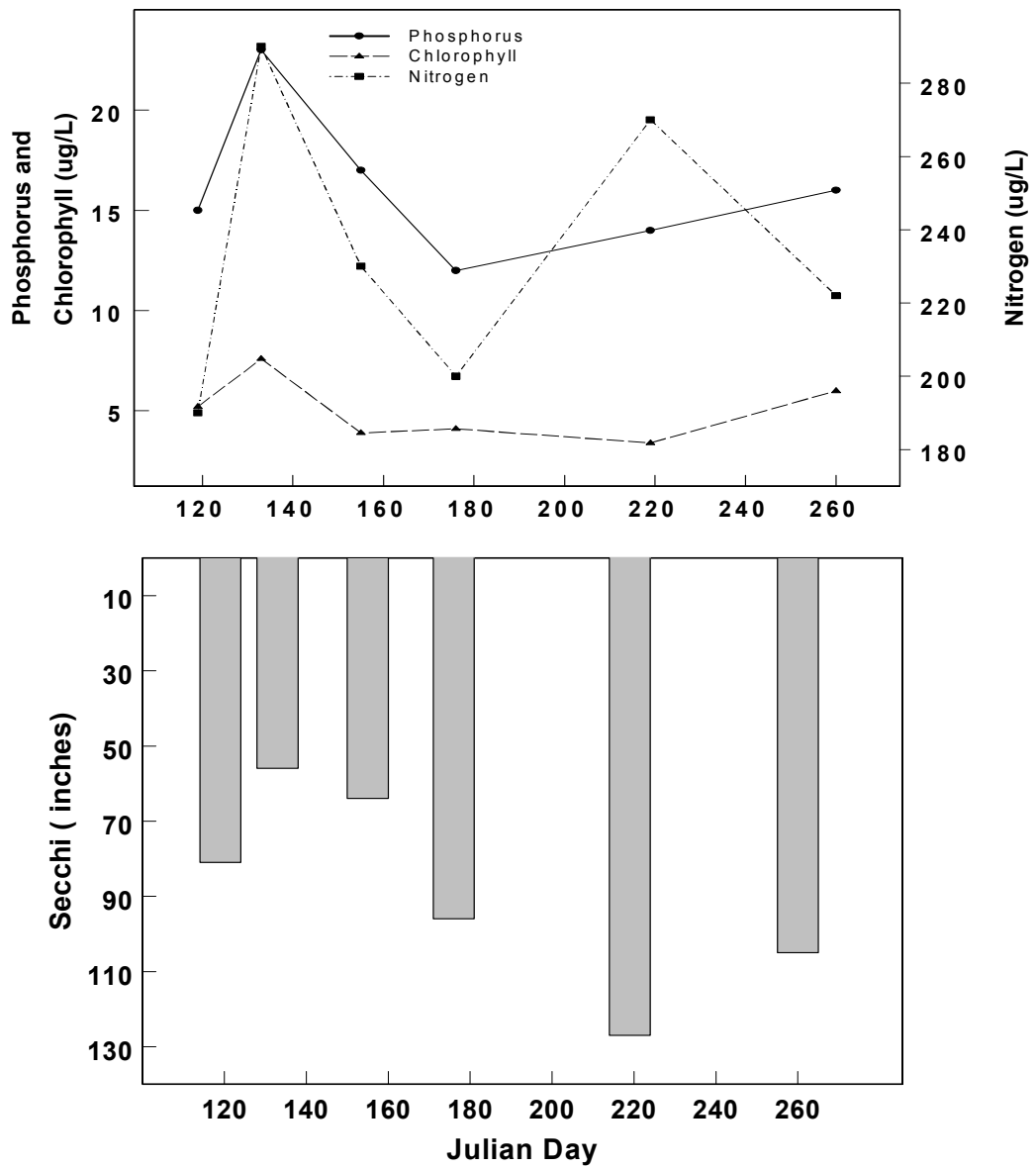


Figure 14. Seasonal fluctuations of the parameters at Site 2 on Bull Shoals Lake - 2000.