

January-Wabash Lake - 2001 Data

Ozark Border Region

January-Wabash Lake, located in January-Wabash Park, is managed by the City of Ferguson. This 5.5-acre lake's watershed is dominated by urban land cover. The lake is in the Urban Fishing Program and is stocked with a variety of fish by the Missouri Department of Conservation.

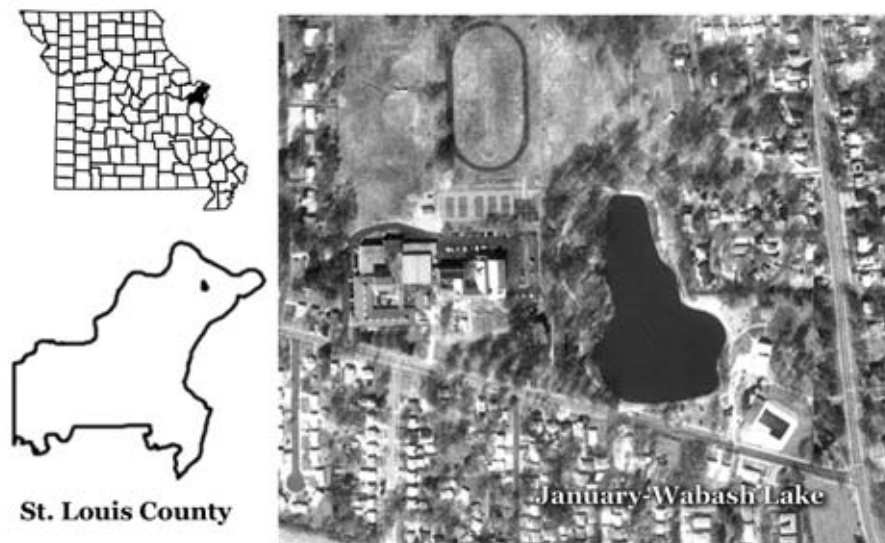


Figure 28. Location of January-Wabash Lake.

2001 Results

Figure 29 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in January-Wabash Lake during the 2001 sampling season. The descriptive statistics appear in Table 14. A brief description of these results:

- Six samples were collected from May 7 to September 7.
- January-Wabash Lake has an aerator, so thermal stratification probably didn't occur (see page 12 for information on stratification).
- Nutrient and chlorophyll values were lower in 2001 than they were in 2000.
- Secchi values were higher in 2001 than in 2000. On 2 occasions the Secchi disk reached the bottom (~26 inches), resulting in the 2 highest values being omitted from the summary statistics. These omitted values would have given a greater mean Secchi depth.
- Chlorophyll concentration was 136 $\mu\text{g/L}$ on August 12 (Julian Day 224). This exceptionally high value indicates the presence of an algae bloom (see page 7).
- January-Wabash Lake was eutrophic in 2001, based on the geometric means of the phosphorus and nitrogen values, and hypereutrophic based on the geometric mean of the chlorophyll values.

Table 14. Descriptive statistics for January-Wabash Lake - 2001.

Parameters	Average	Minimum	Maximum	Median
Secchi Transparency (inches)*	23*	19	27*	22*
Phosphorus ($\mu\text{g/L}$)	86	62	116	88
Nitrogen ($\mu\text{g/L}$)	1013	750	1280	1015
Chlorophyll ($\mu\text{g/L}$)	57.1	19.2	135.9	36.3
ISS (mg/L)	6.7	1.2	13.2	6.5

ISS=Inorganic Suspended Solids

Samples were collected between May 7 and September 7

* On 2 occasions the Secchi disk reached bottom. Summary values will be low, as they do not reflect sampling dates with the highest clarity.

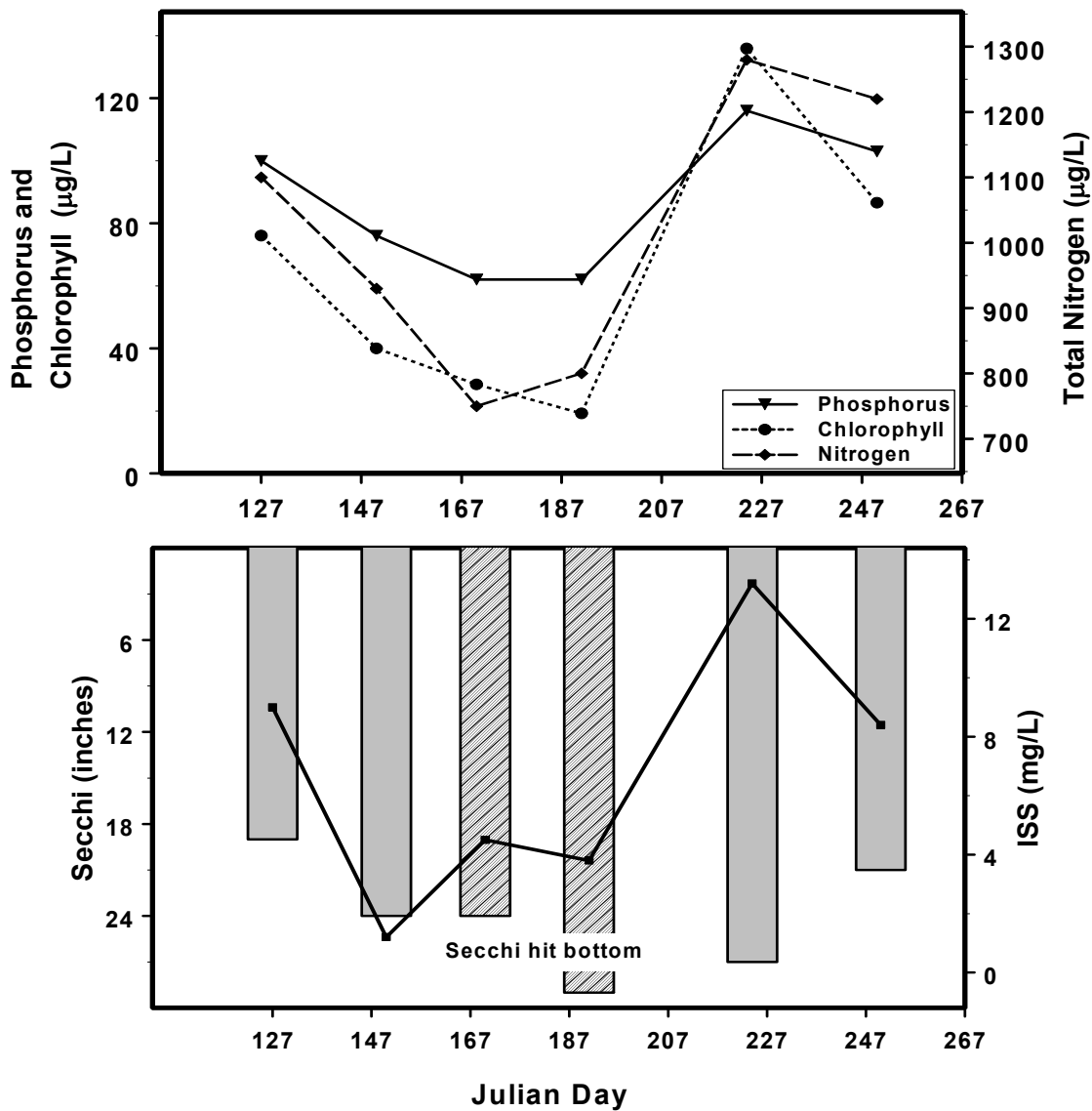


Figure 29. Seasonal fluctuations in January-Wabash Lake - 2001. Bars represent Secchi, line represents ISS.