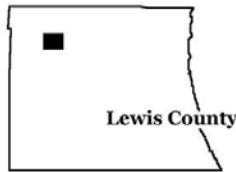


Deer Ridge Lake

Deer Ridge Lake is located in Lewis County in north-east Missouri. This 42 acre lake has a watershed that is approximately 610 acres in size; consisting of mostly forest (54%) and grass/pasture (28%), with some crop land use (9%). The lake is located in the Missouri Department of Conservation's Deer Ridge Area.



Location of Deer Ridge Lake

Descriptive statistics for Deer Ridge Lake – 2005

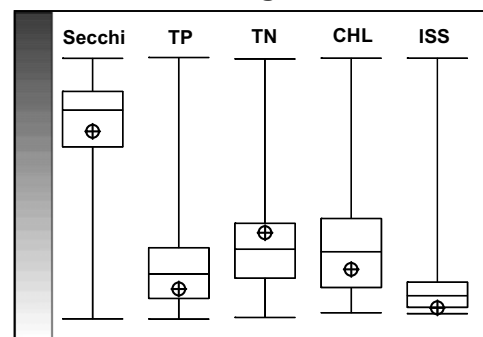
	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
Geometric Mean	52	28	854	10.5	1.4
Minimum	17	22	700	4.7	0.4
Maximum	81	60	1160	29.7	7.6
Number of Samples	7	7	7	7	7

Water quality was good in Deer Ridge Lake in 2005, with all parameters (except TN) ranking below the statewide median.

The large amount of forest land cover and limited agriculture in this lake's watershed likely contribute to the good water quality observed in Deer Ridge Lake.

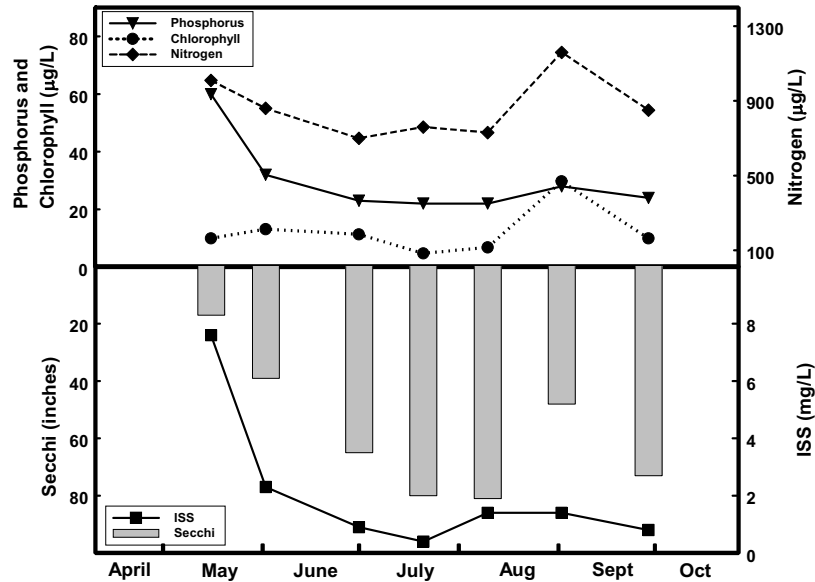
The nutrients and ISS showed normal fluctuations during the sample season, while chlorophyll and Secchi were more variable.

Relative Rank for Deer Ridge Lake



Deer Ridge Lake

Seasonal fluctuations of parameters for Deer Ridge Lake – 2005



The maximum phosphorus value was measured on the same day as the maximum ISS, a common occurrence as these two parameters are often coupled.

ISS values start out high, but quickly decrease to low levels. As ISS decreases the Secchi transparency responds by increasing until the second to last sample, when a peak in algal chlorophyll reduces water clarity.

The chlorophyll peak occurs on the same day as the maximum nitrogen measurement. Neither phosphorus nor ISS levels show an increase on this day, suggesting that there was not an input associated with a rain event. It is possible that the increase in nitrogen was brought on by the growth of algae capable of fixing atmospheric nitrogen.