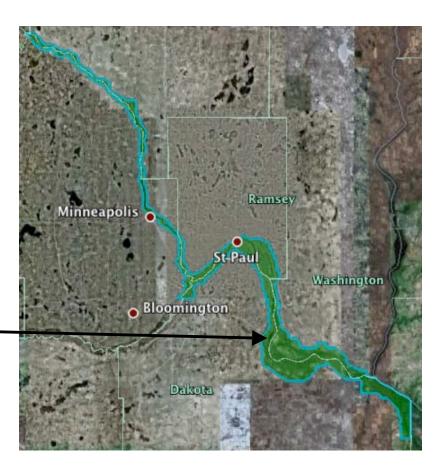
Using Sediment Cores to Determine the Recent History of a Mississippi Backwater Lake

Erin Mittag and Joy Ramstack

River Lake





Mississippi National River and Recreation Area

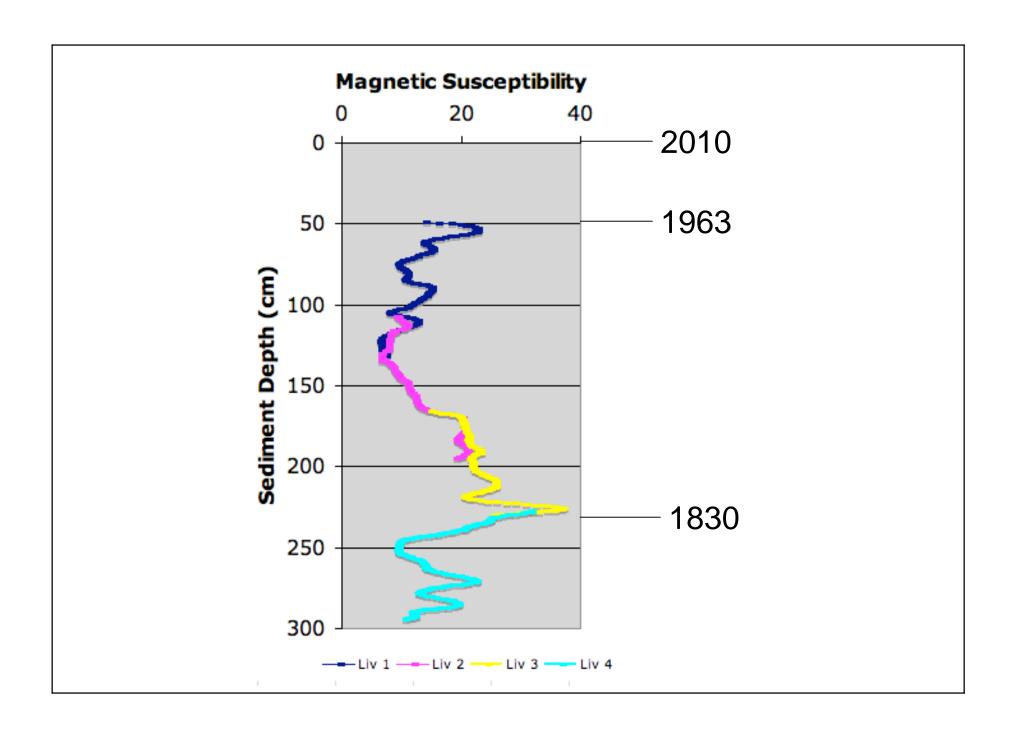
Research Questions

- 1. How much sediment has accumulated in River Lake since European settlement and how does it compare to that of Lake Pepin?
- 2. How is the sediment accumulation in River Lake influenced by the Mississippi River?

Methods

- Collected 5 overlapping sediment cores
- Magnetic susceptibility, loss on ignition, Cesuim-137, total phosphorus
- Compared to Lake Pepin study (Engstrom et al. 2009)





Conclusions

- River Lake has accumulated about the same amount of sediment as Lake Pepin since European settlement
- More consistent sediment accumulation indicates that River Lake is continuing to act as a sediment trap for the Mississippi
- The Mississippi has had a strong influence on River Lake's sediment accumulation, and River Lake has not been isolated from this influence.
- The total phosphorus concentration has remained fairly constant over the period of study

