The Effect of Land Use on Salinity and Total Suspended Solids

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Introduction

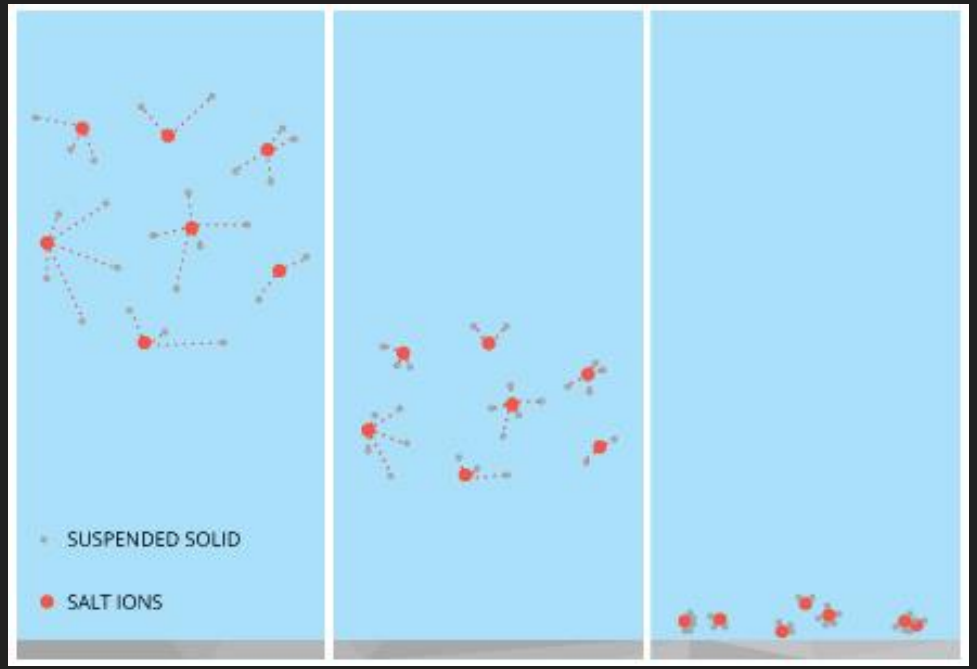
www.commons.wikimedia.org/wiki/File:Noturus_flavus.jpg

Noturus flavus (stonecat)

Introduction

- Total Suspended Solids
- Salinity
- Land Use
- Habitat

www.flickr.com/photos/95128916@N00/14440771677



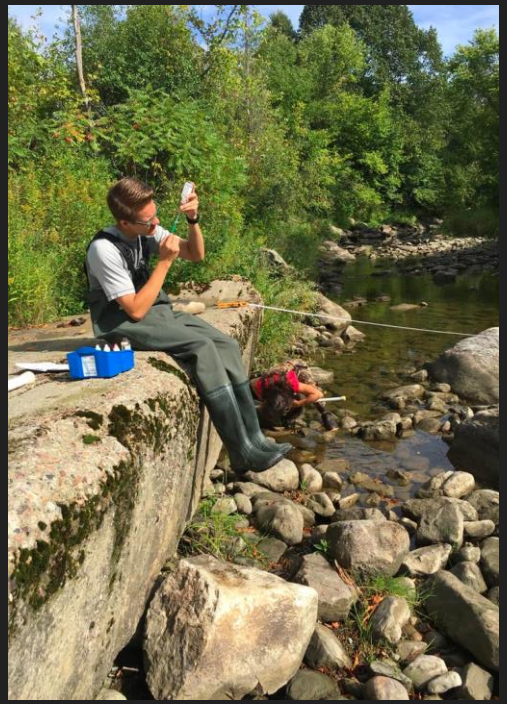
www.fondriest.com/environmental-measurements/parameters/water-quality/turbidity-total-suspended-solids- water- clarity/

Hypothesis

It was predicted that the urban habitat around the Allen Brook would cause it to have a greater salinity, which would lower the concentration of total suspended solids to be similar to the LaPlatte.

Methodology

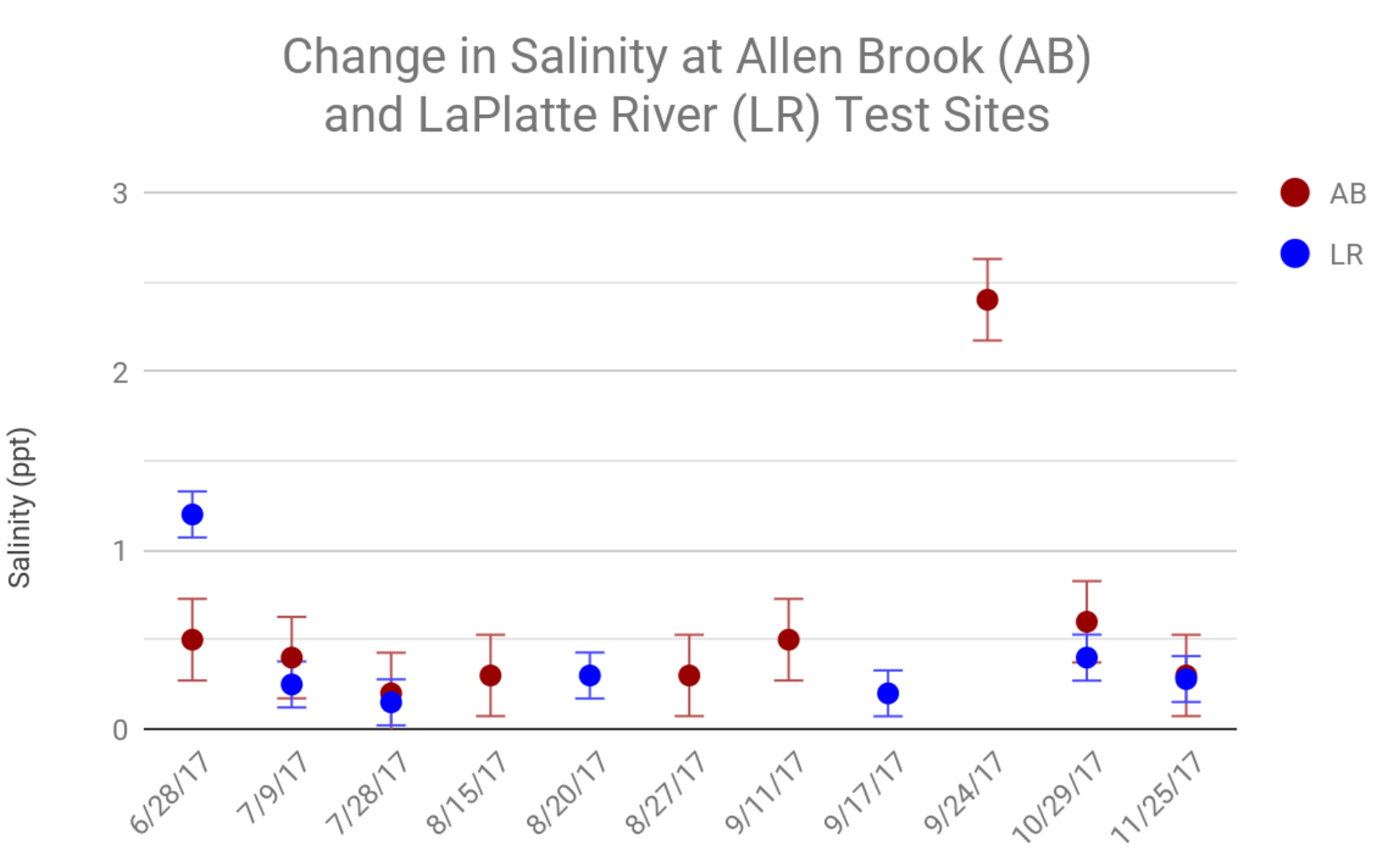
- Salinity titration
- TSS water sample
- Site assessment
- Habitat assessment



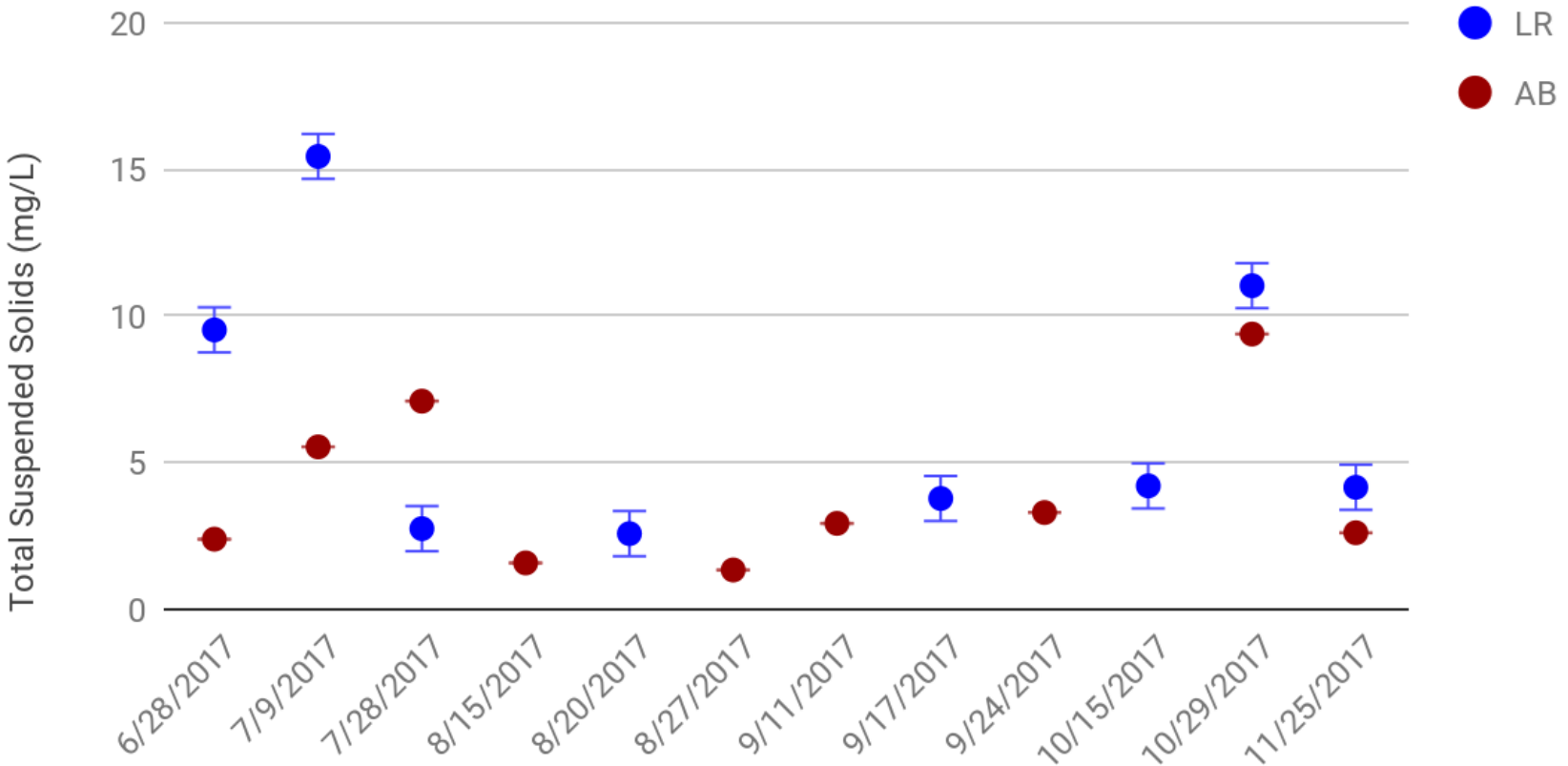
Habitat

Allen Brook

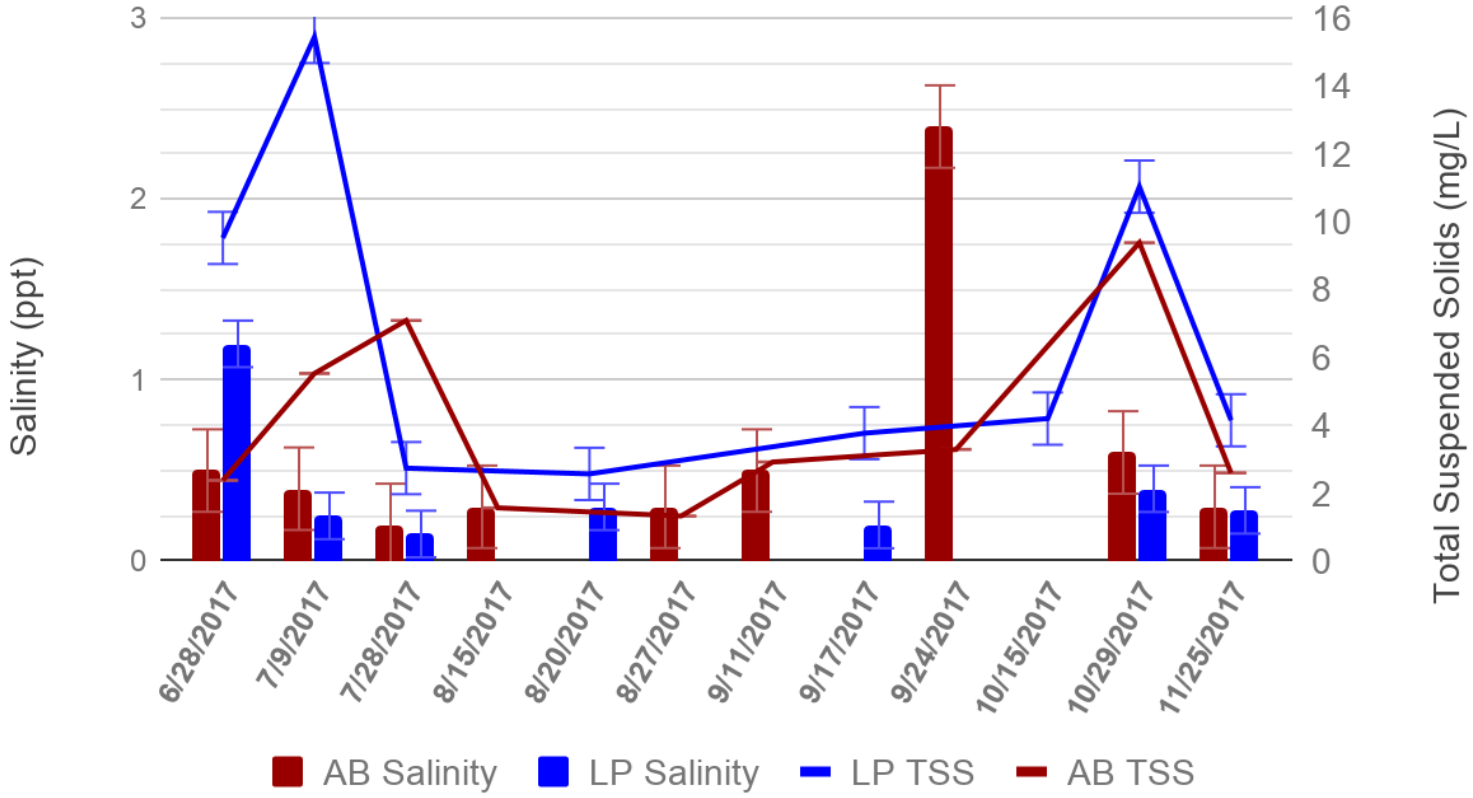
LaPlatte River


Change in Salinity at Allen Brook (AB) and LaPlatte River (LR) Test Sites
Salinity (ppt)
3
2
1
0
AB
LR
6/28/17
7/9/17
7/28/17
8/15/17
8/20/17
8/27/17
9/11/17
9/17/17
9/24/17
10/29/17
11/25/17

Change in Total Suspended Solids at Allen Brook (AB) and LaPlatte River (LR) Test Sites



Change in Salinity and Total Suspended Solids at Allen Brook (AB) and LaPlatte River (LR) Test Sites



Conclusion

The data did not support the hypothesis that the increased urban land use immediately surrounding the Allen Brook would increase salinity and mitigate the difference in total suspended solids.

Further Research

- Year round data collection
- Precipitation events

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