

Fisheries & Water Quality Monitoring: Muskegon River Veterans Memorial Park Habitat Restoration Project

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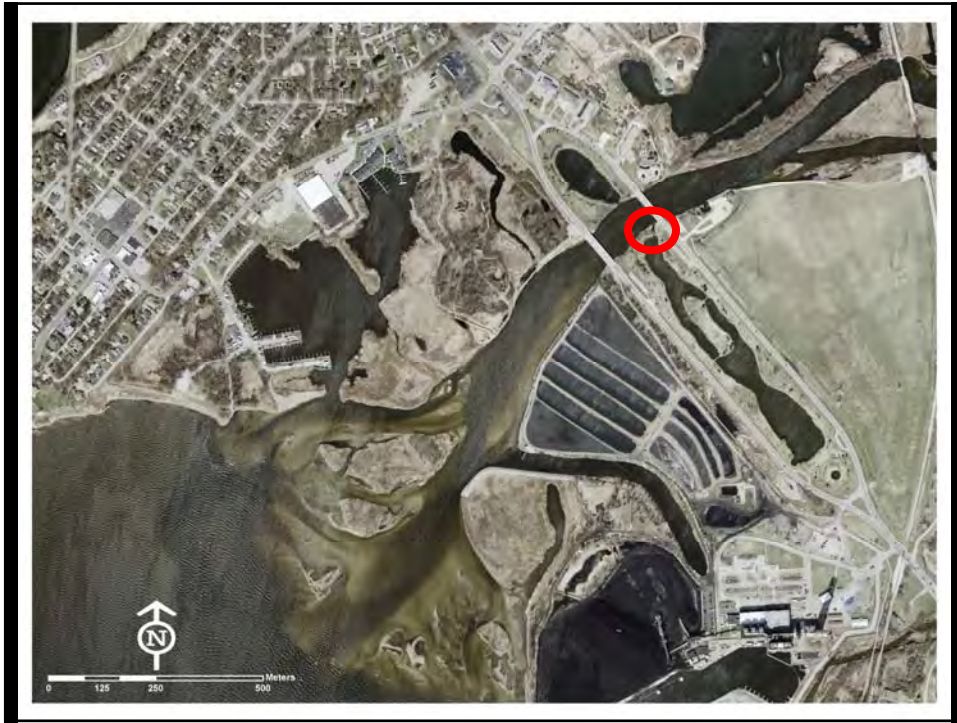


Project Goal

- Assess effects of habitat restoration on fish and water quality

Restoration

- Removed water-control structure from South Pond
- Improved connection between North Pond & river
- *Typha* & other invasive plants removed from shoreline of North & South Ponds
- Fish habitat structures were added to North & South Ponds



Shoreline Restoration



Study Design

Spatial

- North Pond—3 sites
- South Pond—6 sites
- Muskegon Lake—2 sites



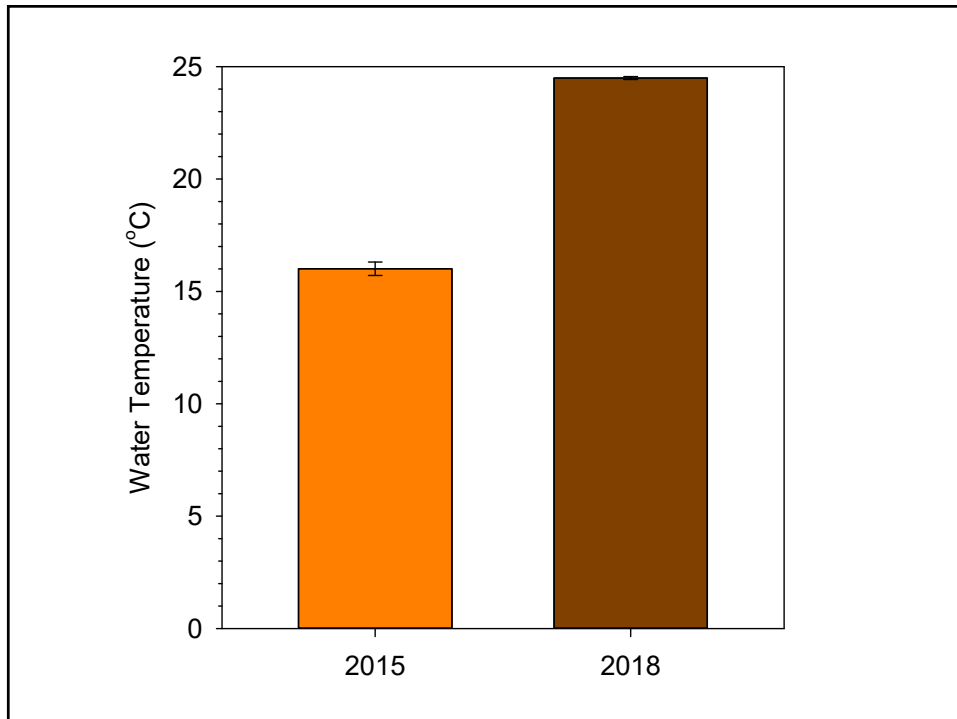
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Spatial

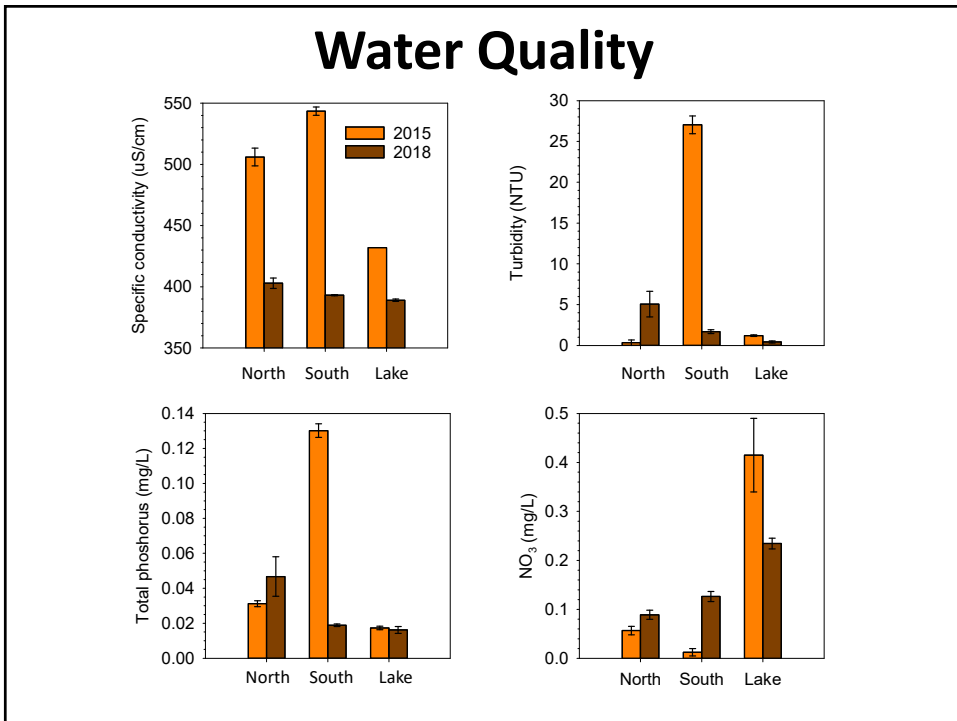
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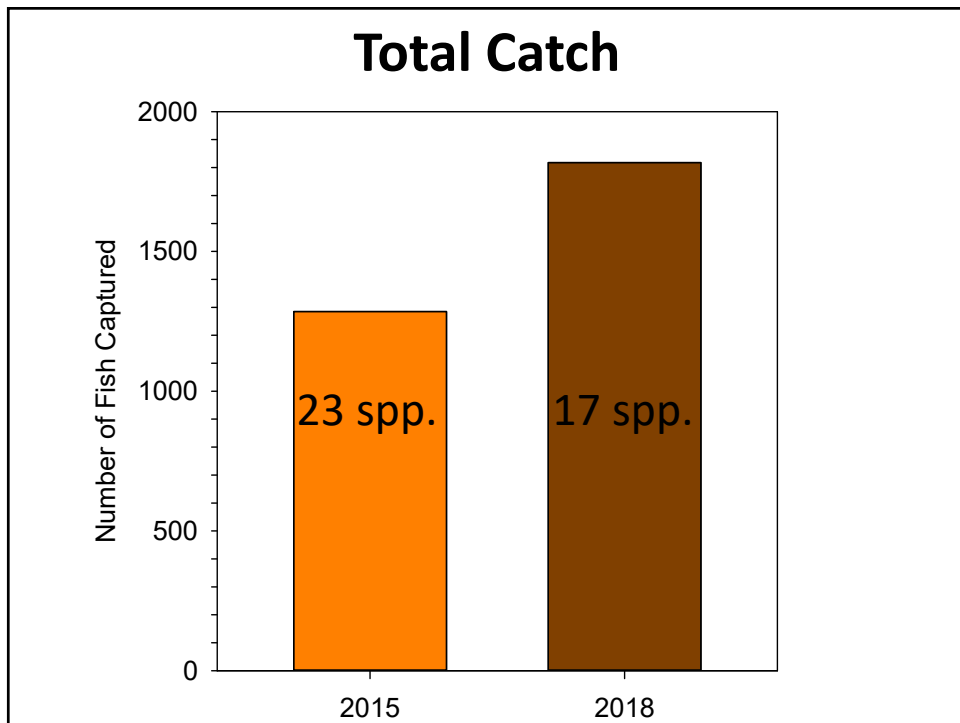
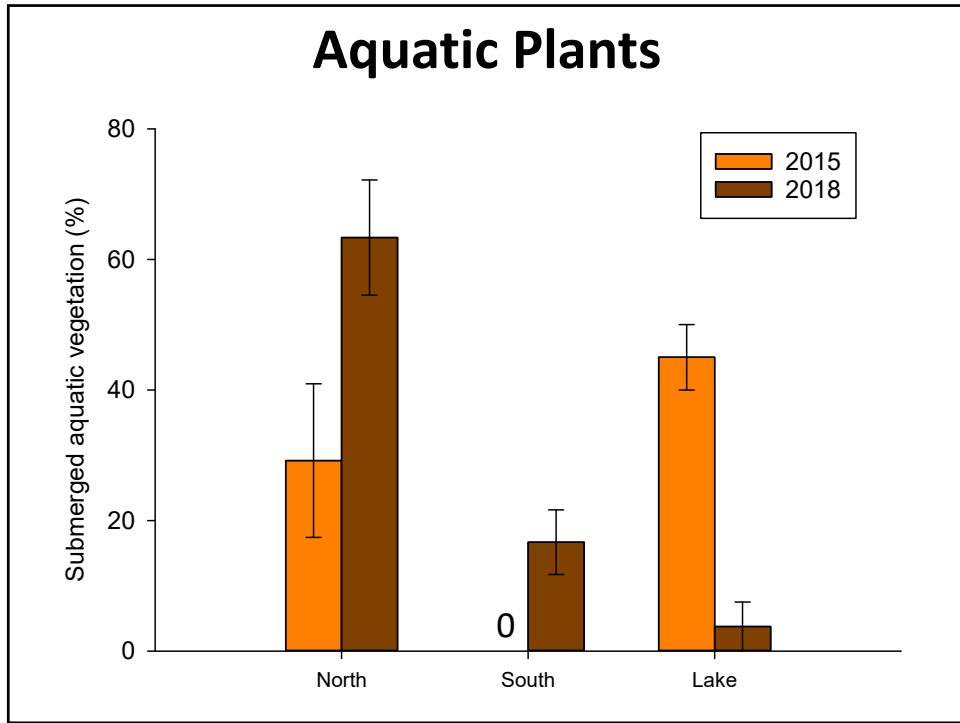
Temporal

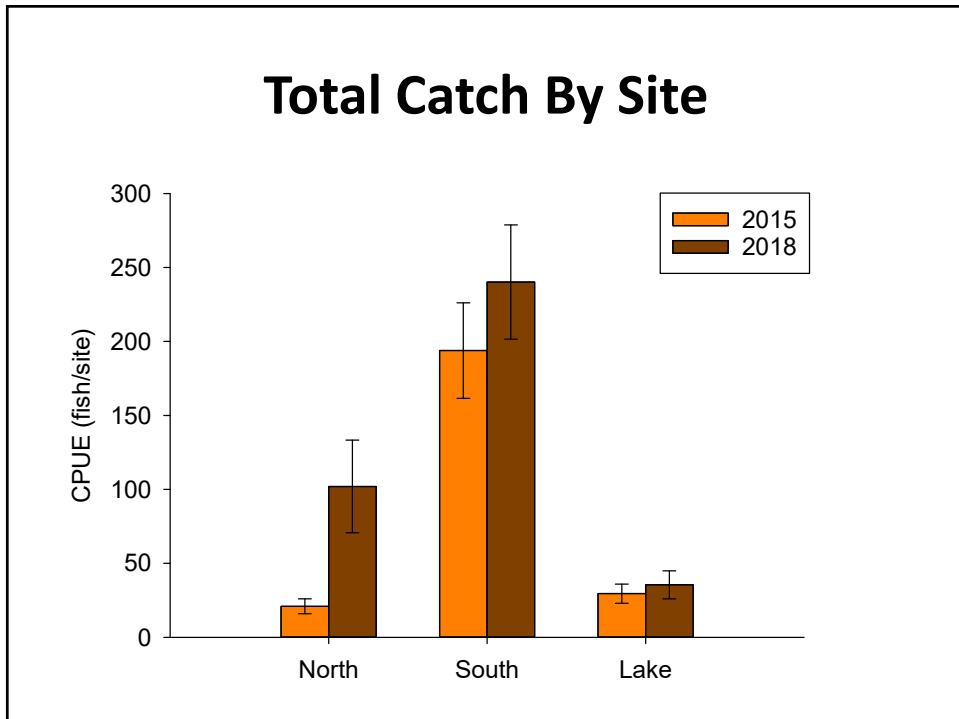
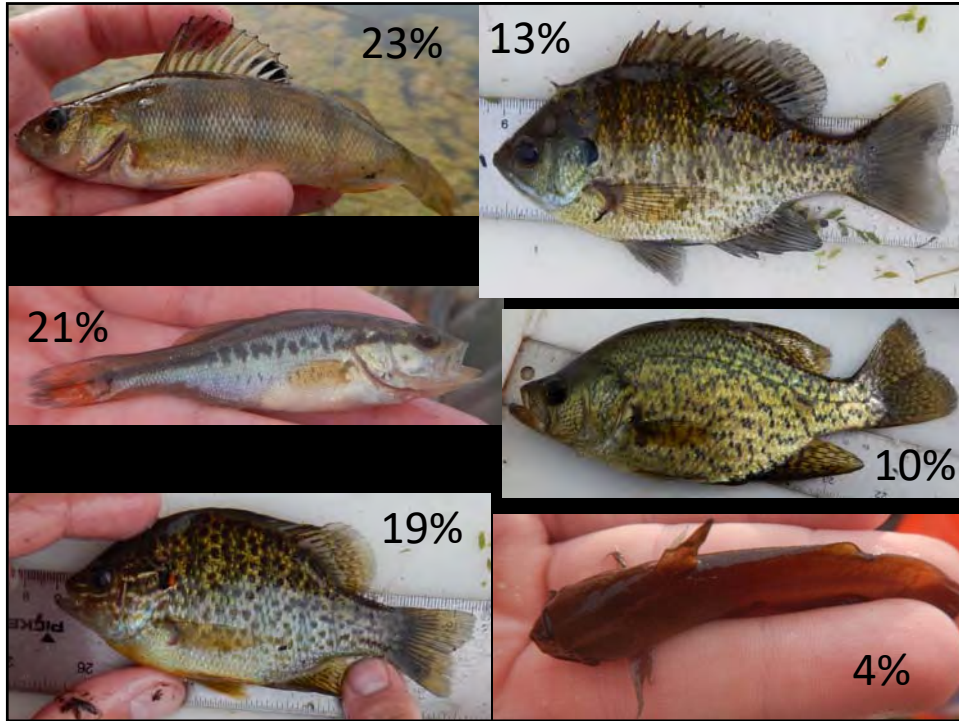
- 5-8 October 2015
- 7-10 August 2018

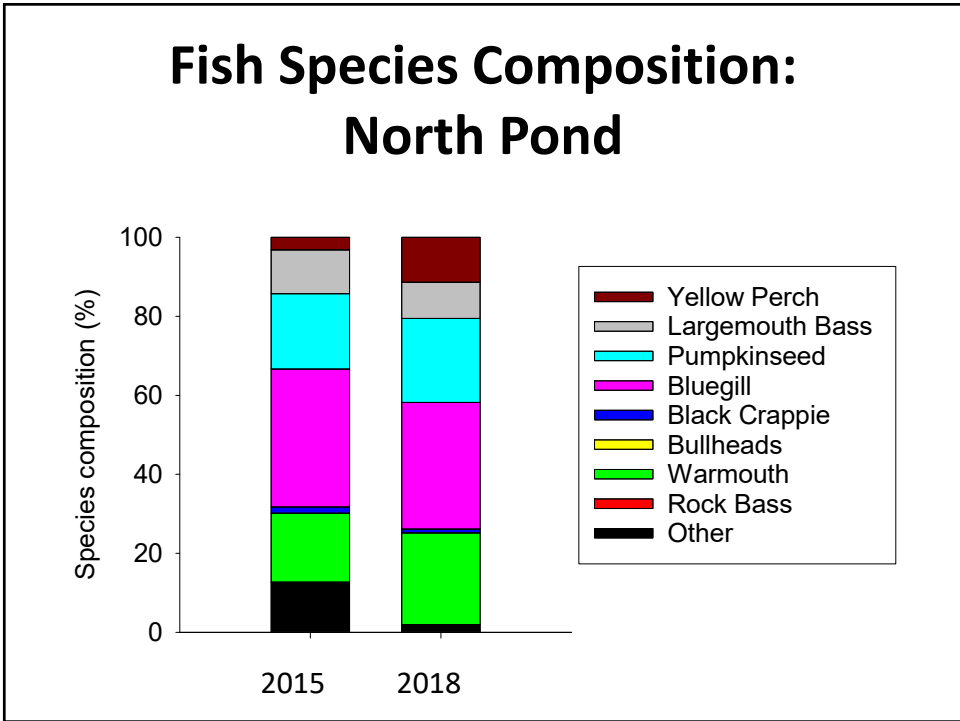
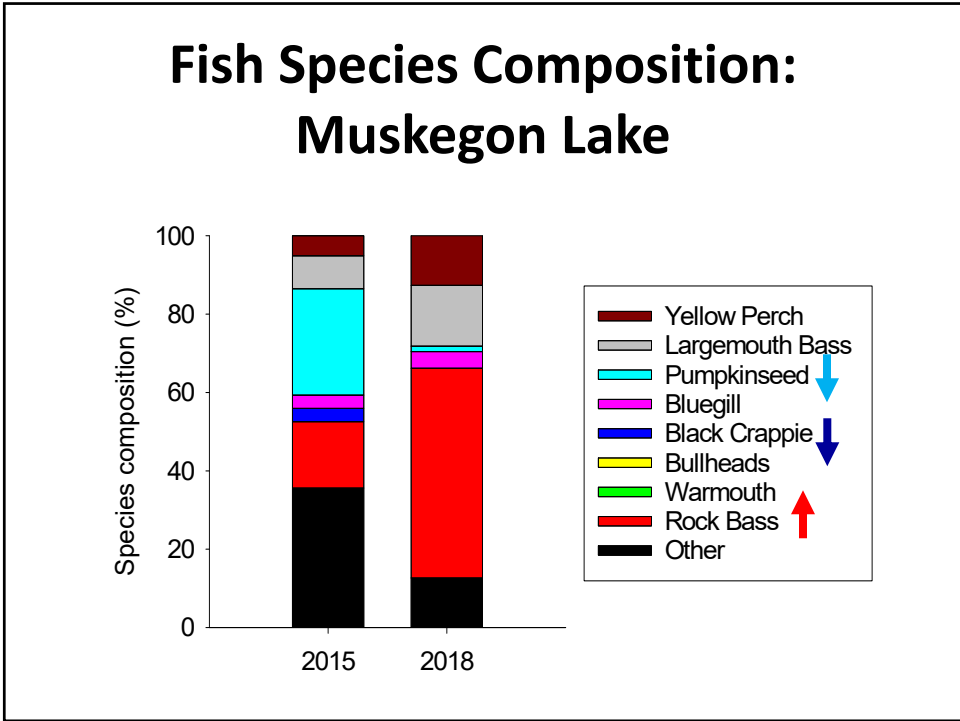


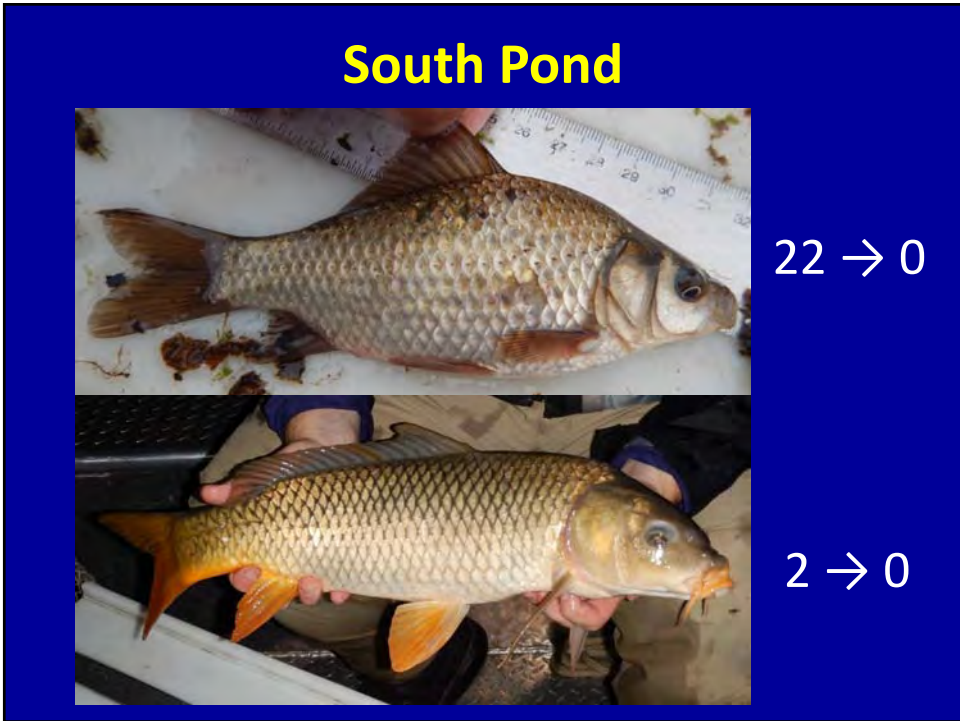
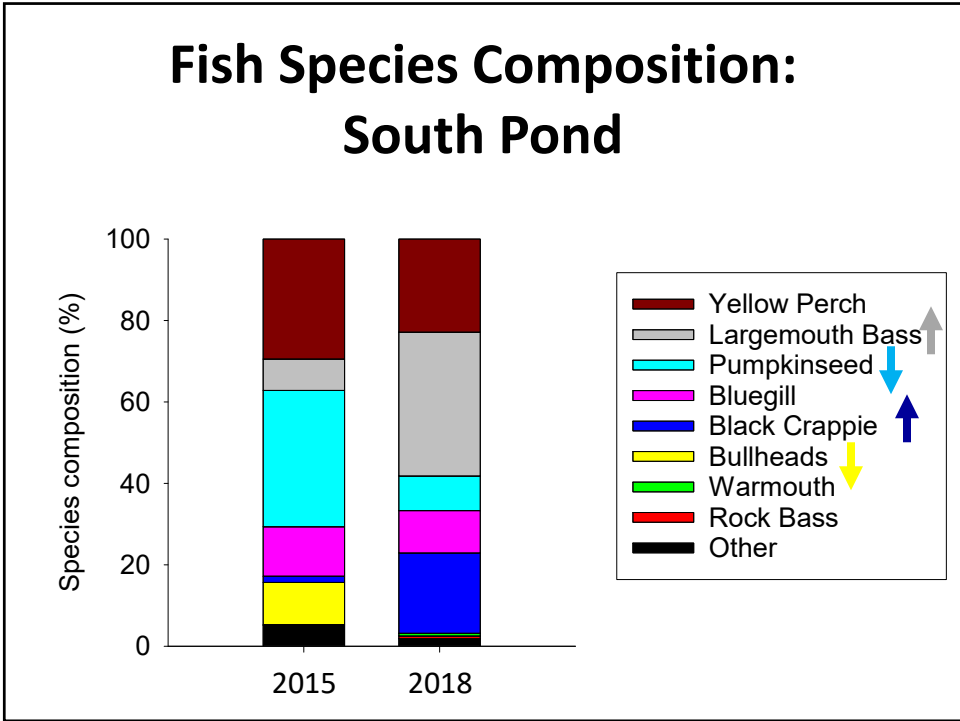












Conclusions & Future Directions

- Water quality improved in South Pond
- Fish assemblage may be responding to reconnection in South Pond
- Difference in timing of sampling confounded pre- vs. post-restoration comparison
- Conduct additional post-restoration monitoring