

Upper Little Miami River

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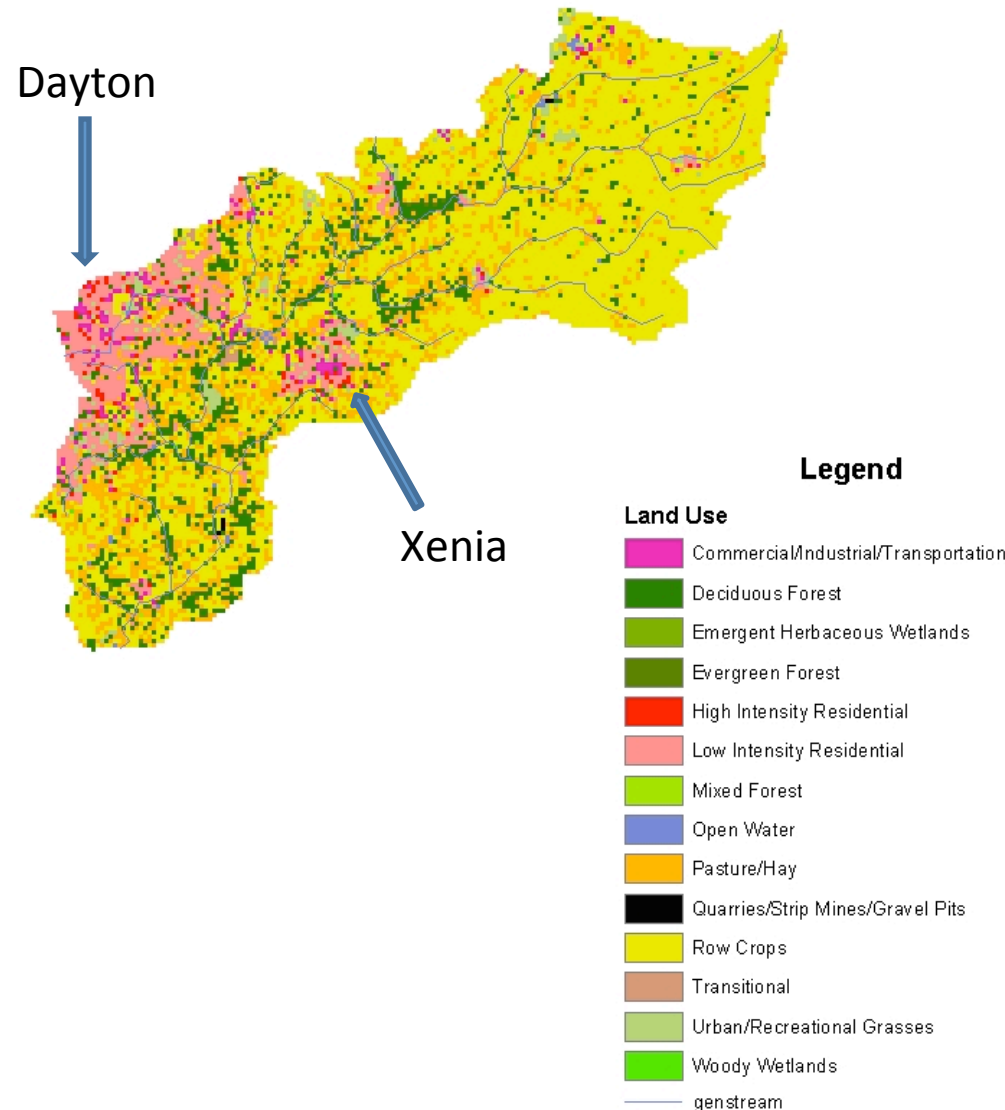
Athena Williams

Little Miami
INCORPORATED
Keeping the Scenic River Scenic Since 1967



Upper Little Miami Watershed

- Located in Southwest Ohio, mostly in Clark, Greene, Clinton, and Warren Counties
- Flows into the Ohio River Basin
- Land use is 58% row crops, 18% urban, 13% forest, and 10% pasture

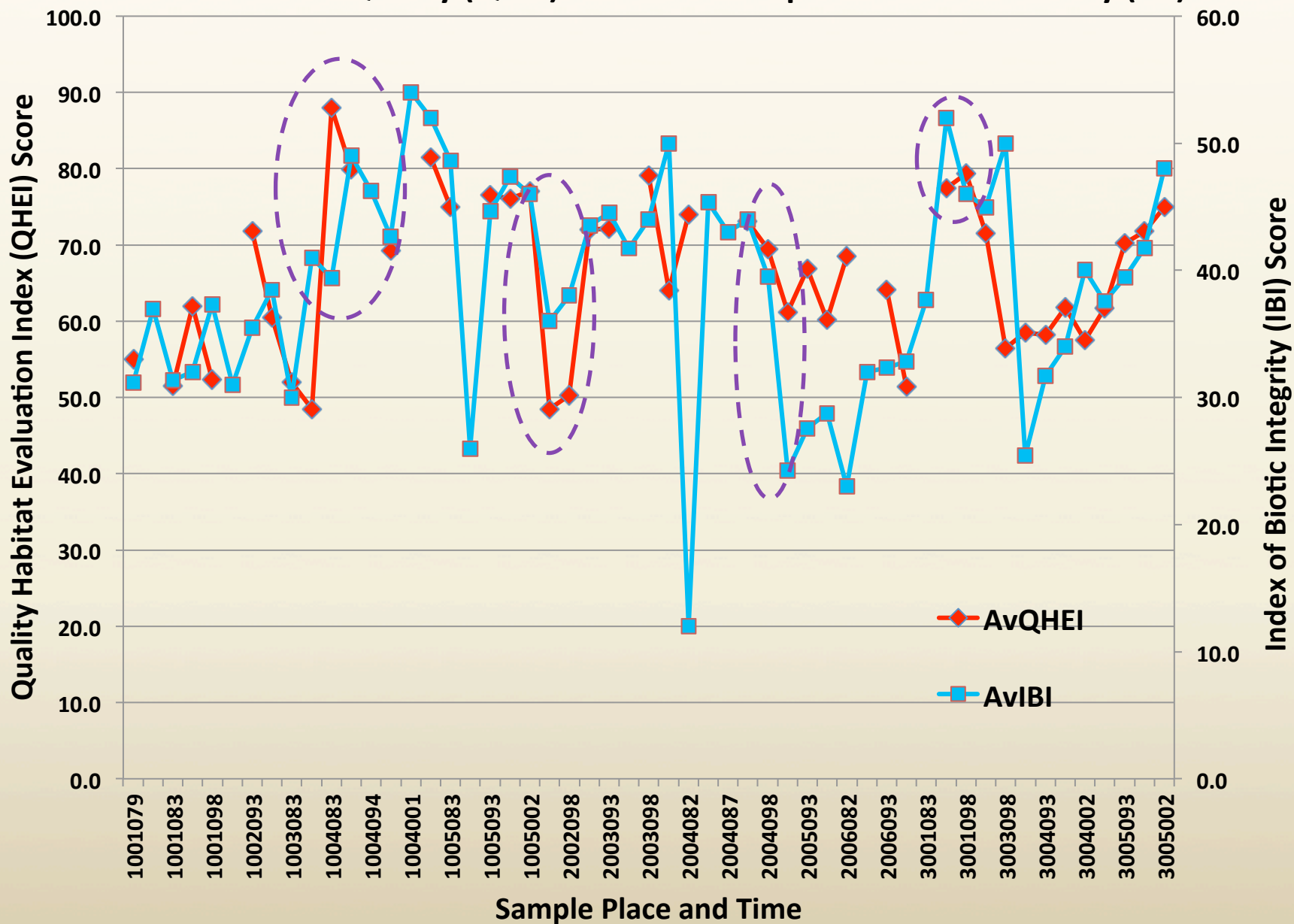


Causes of Impairment

- Nutrient Enrichment
- Pathogens
- Suspended Solids
- Ammonia
- Habitat Alterations

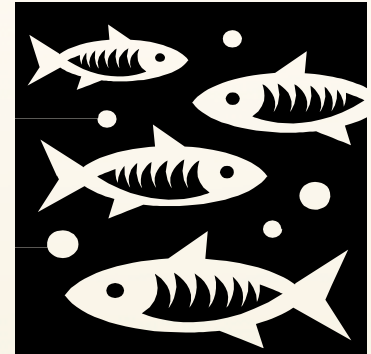


Stream Habitat Quality (QHEI) Affects Fish Population and Diversity (IBI)





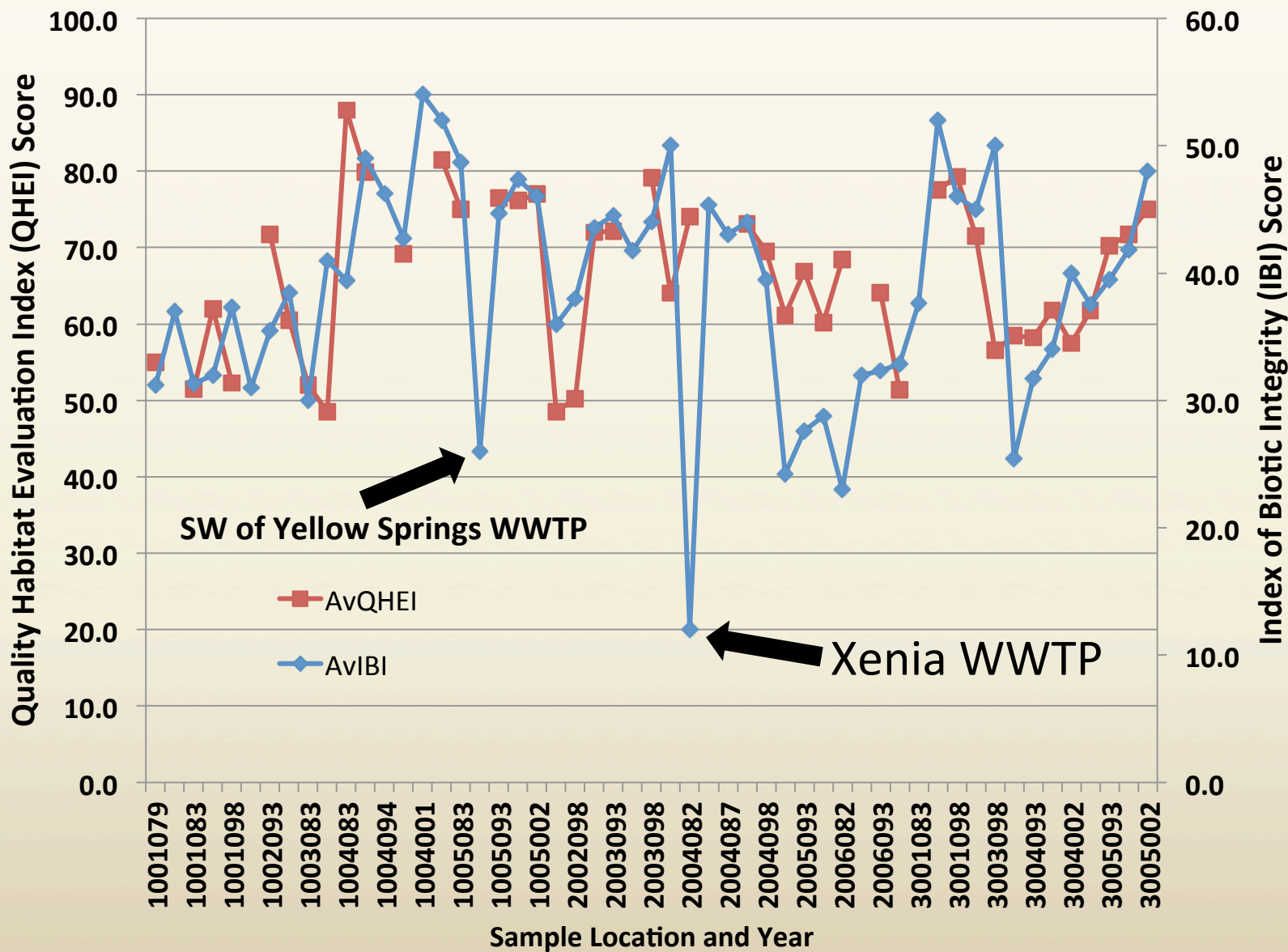
Conclusion



Based on my data, I accept my hypothesis that stream habitat quality affects fish population and diversity.

- Good cover for the stream keeps the water cool, so that there is more oxygen for the fish to breathe.
- A rocky substrate where macroinvertebrates live provides a source of food for the fish.

Stream Habitat Quality (QHEI) & Fish Population and Diversity (IBI)

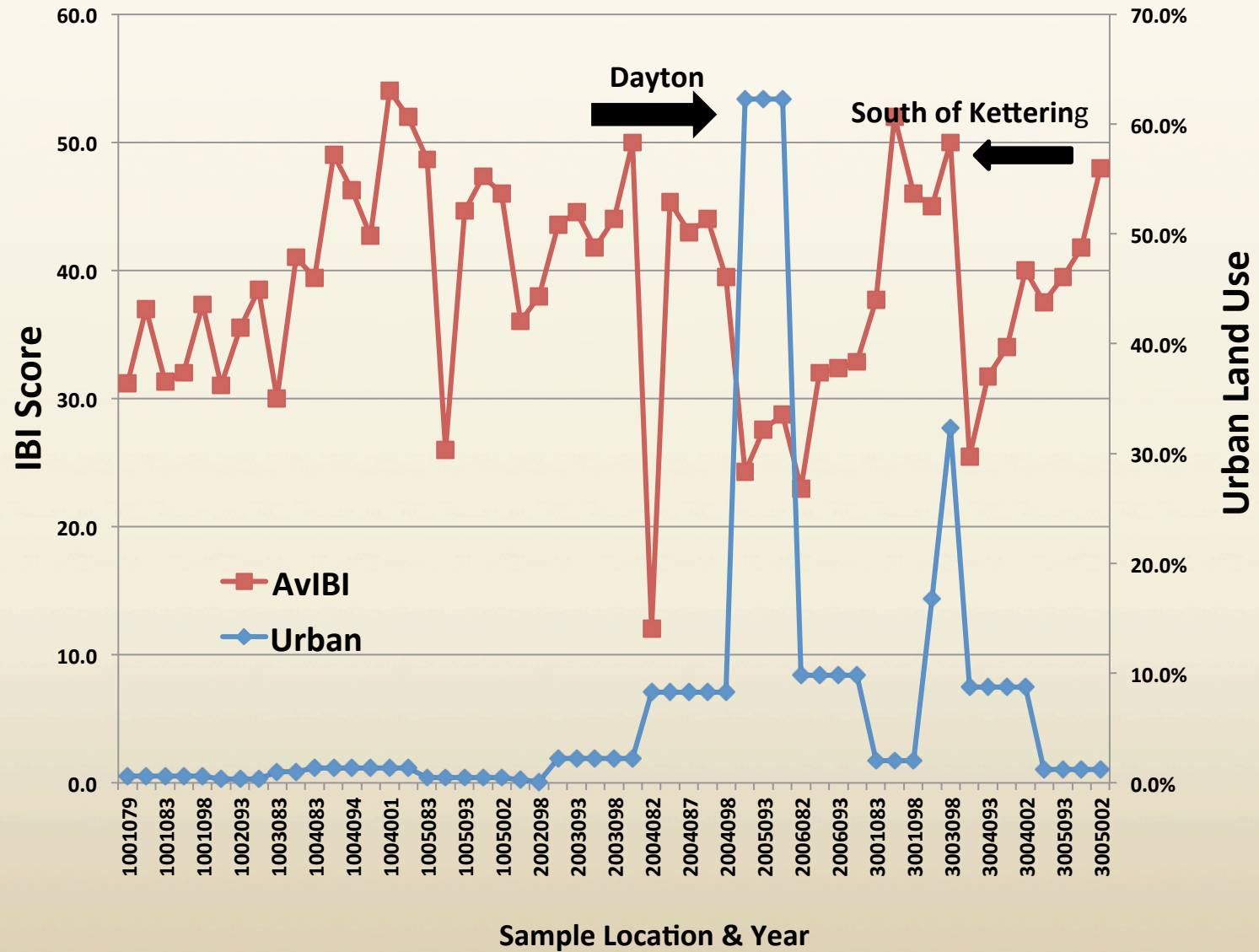


Xenia WWTP

- Was the cause of the overgrowth of *E. coli* bacteria in Glady Run
- Waste capacity exceeded designed quantity
- Has recently been expanded to hold more waste



Urban Land Use Affects Fish Population & Diversity



Conclusion

- Based on the data I accept the hypothesis that urban land use affects fish population and diversity.
- Construction site run off (dirt) increases turbidity levels in the stream.
- Lawn fertilizer runs off directly into storm sewers.
- More roads can change the flow of vehicles into stream



Why Does This Matter?

- This could be your drinking water.
 - And if it isn't, then pollution from another watershed could flow through tributaries into yours.
- Unhealthy water decreases the fish population, so the insects they eat, like mosquito larvae, will increase in population.
- A few rivers are known as scenic rivers by the state and/or nation, so if pollution gets into them, their natural beauty would be taken from future generations.
- Animals that primarily feed on fish will have little food, and possibly even starve.

WARNING

**FISH CONTAMINATED
DO NOT EAT**



Filter Strips



Storm Water and Erosion Control

Ways You Can Help



Create a Rain Garden



Thank You

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