

The Upper Scioto Watershed

created by:

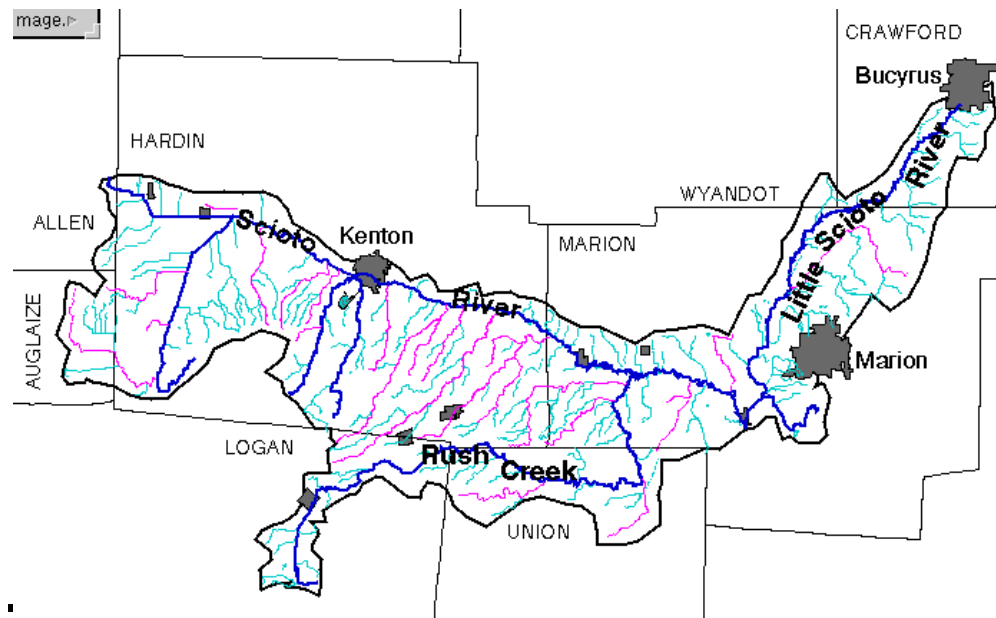
Lena Beckwith

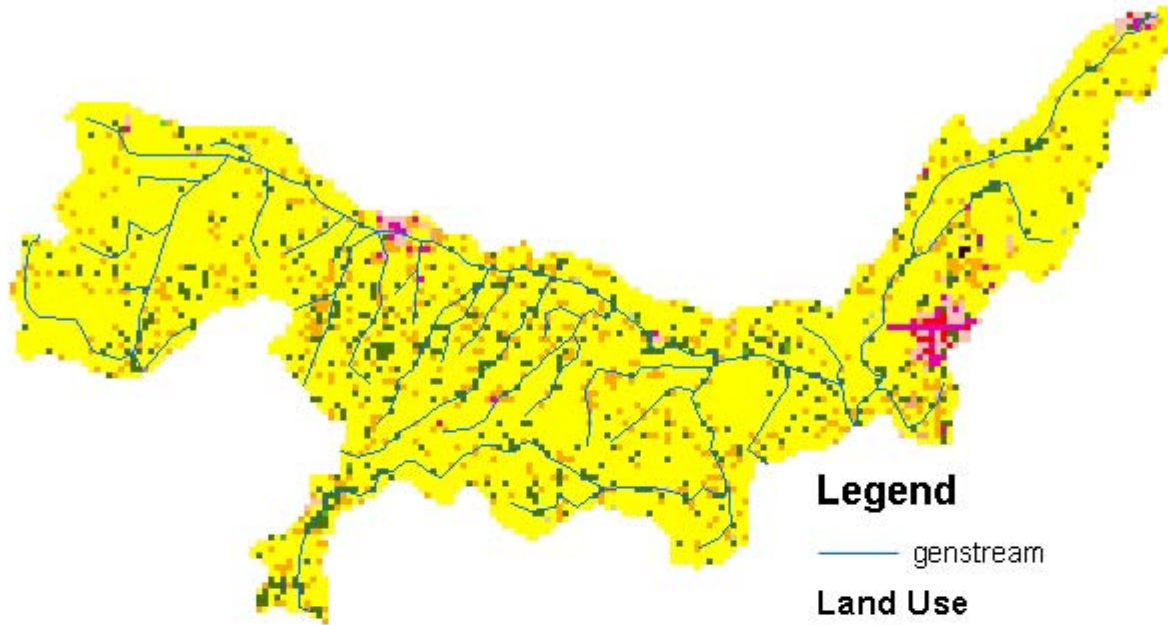
Rebekah Lee

Sarah Janitzki

Upper Scioto Watershed

- A watershed is an area of land that forms the drainage system for a stream, lake, or river.
- This Watershed is in parts of nine counties.





Legend

— genstream

Land Use

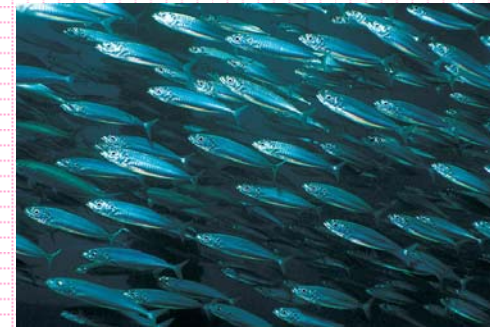
-  Commercial/Industrial/Transportation
-  Deciduous Forest
-  Emergent Herbaceous Wetlands
-  Evergreen Forest
-  High Intensity Residential
-  Low Intensity Residential
-  Mixed Forest
-  Open Water
-  Pasture/Hay
-  Quarries/Strip Mines/Gravel Pits
-  Row Crops
-  Transitional
-  Urban/Recreational Grasses

HYPOTHESIS number 1

As the ICI decreases
the IBI will also decrease.

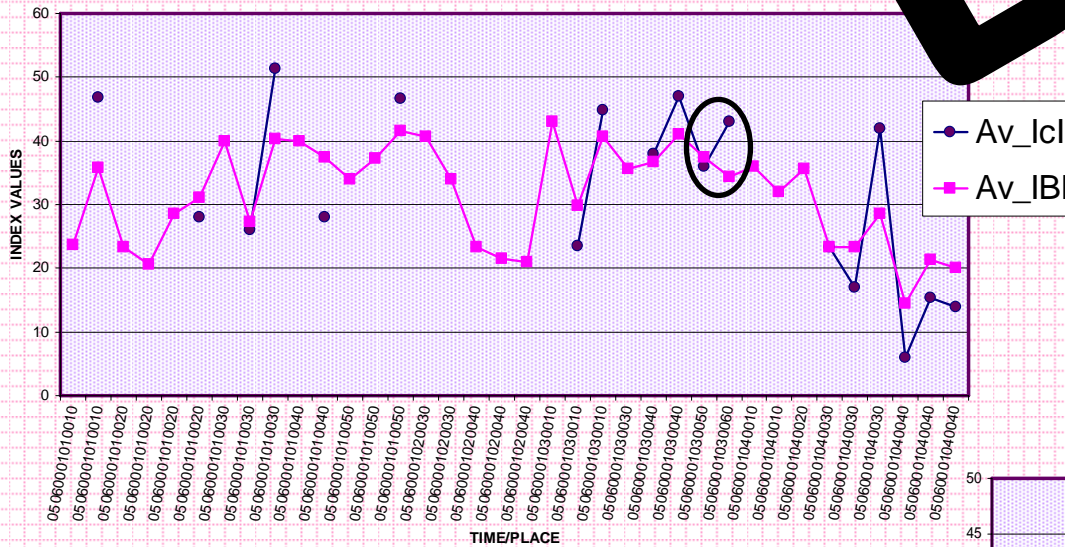


then



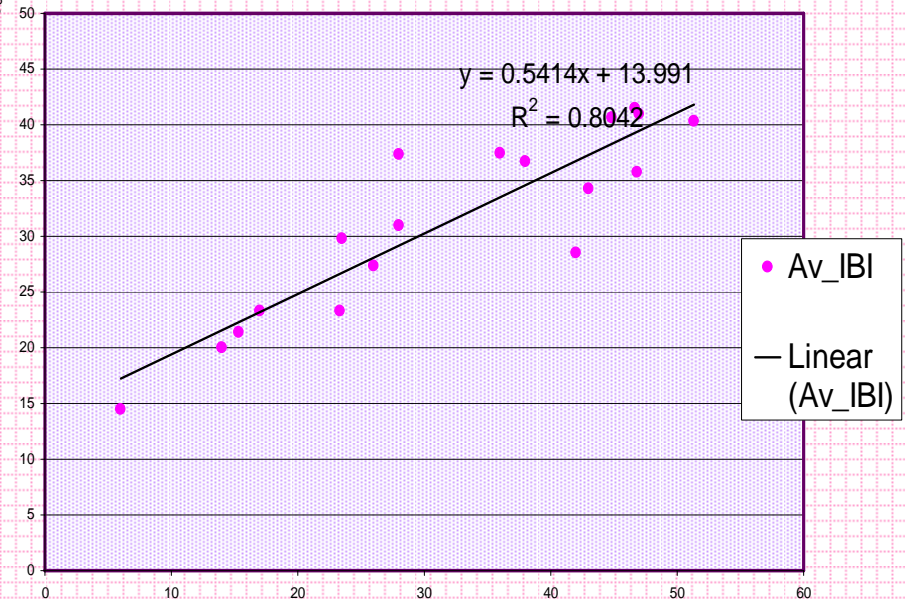
DATA

AVG IBI VS. ICI

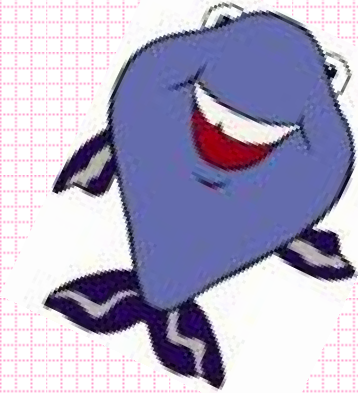


The circled area was the only flaw in my hypothesis. However, the data collected has no indication of why it differs.

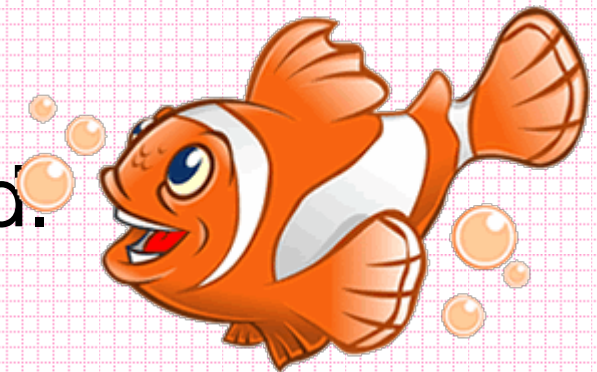
Average IBI Vs. Average ICI



CONCLUSION



- The macroinvertebrates are low on the food chain.
- If the ICI decreases the IBI will also decrease.
- My hypothesis was supported.

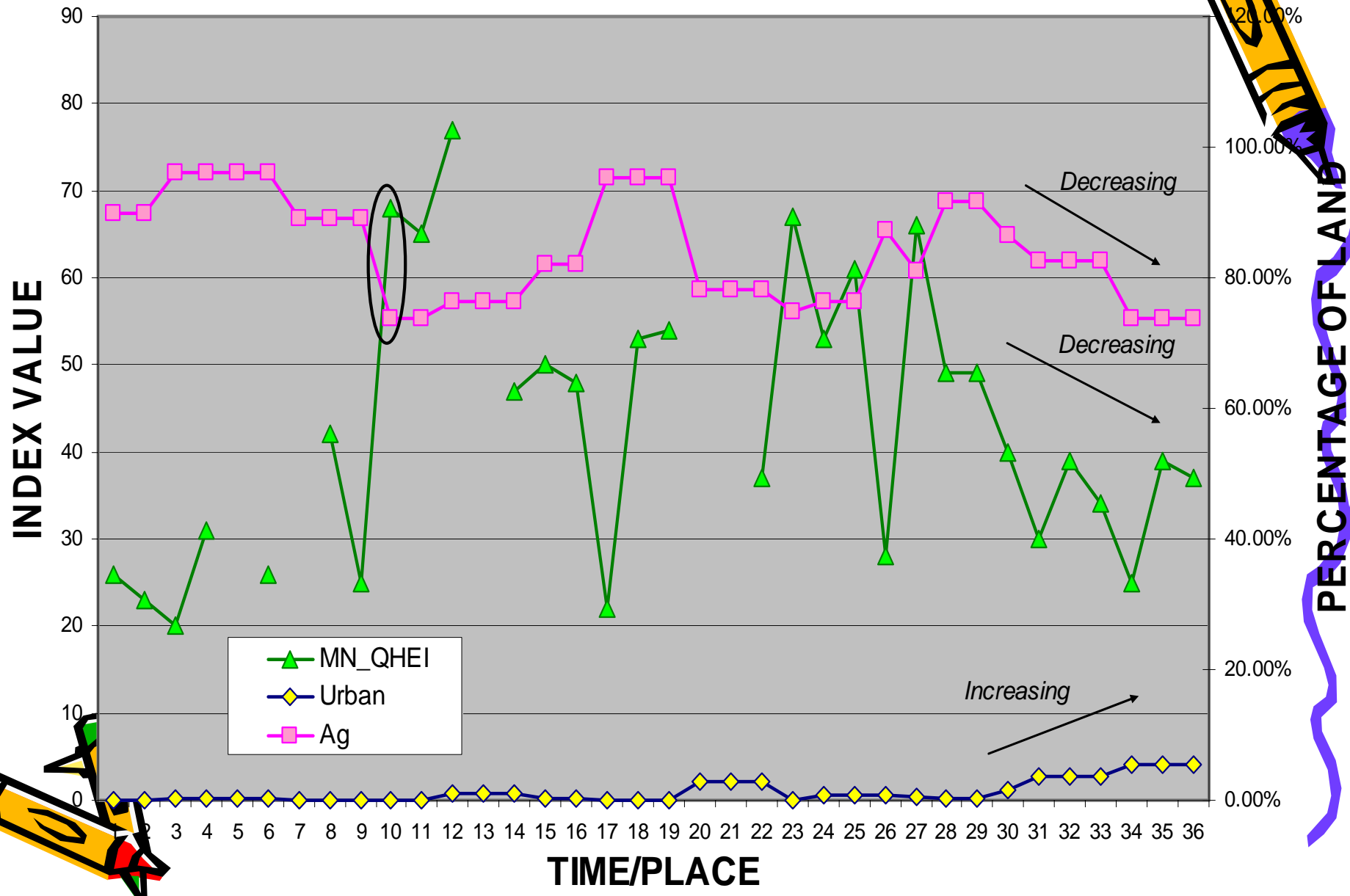


~Hypothesis #2~

- As agriculture and urban land use increase, the QHEI decreases.



Agriculture & Urban Land Use Vs. QHEI



cOnCluSiOn

- The urban land areas affect the QHEI of the watershed.
- The agriculture areas affected the QHEI.
- My hypothesis was fairly supported.



HYPOTHESIS

When agricultural land increases, average ICI decreases.

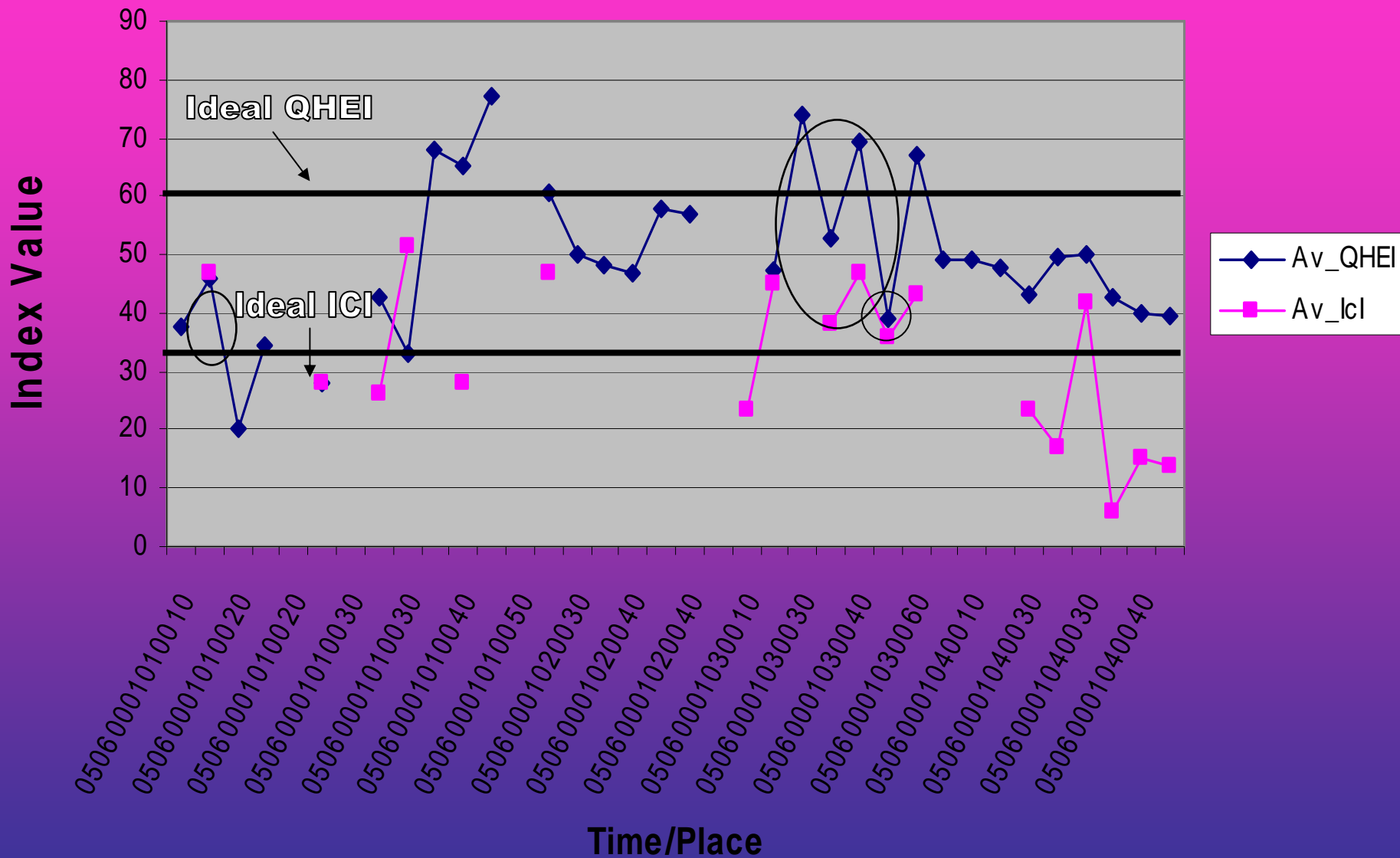


Av. ICI vs. Agr. land



Av ICI vs. Av QHEI

MY DATA



CONCLUSION

Av. ICI vs. Agricultural Land

The amount of agriculture land does affect the Av. ICI. According to the data gathered, we cannot be sure if cattle and other animals on farms are trampling the riparian zone and leaving waste in the water.

This data does support my hypothesis.

Av. ICI vs. Av. QHEI

Farming too close to the riparian zone is causing sediment in bottoms of rivers and streams to increase which is effecting the ICI.

This data does support my original hypothesis.

HOW CAN WE HELP?

No-Till

- No-Till prevents sediment and nutrients from going into the water
- this practice reduces time and effort for the farmers
- provides long term crop residues

Conservation Tillage

-very similar to No-Till

- greatly reduces erosion and surface runoff of pesticides

Livestock Husbandry

- give animals a water source other than a stream or river
- helps keep sediment and nutrients from settling to the bottom and killing the macroinvertebrates.

Contour Stripping/Cropping

- helps strengthen soil
- prevents erosion and runoff
- instead of planting crops side by side, make the rows contour by alternating strips

Acknowledgements

Jaimie

chaperones

Virginie

Paula

Steve

Leslie

OSC Staff

we would like to thank

Kathryn

Teachers

Sponsors

Everyone who helped us

and made the week enjoyable (including our parents)

THANK YOU SO MUCH!!!