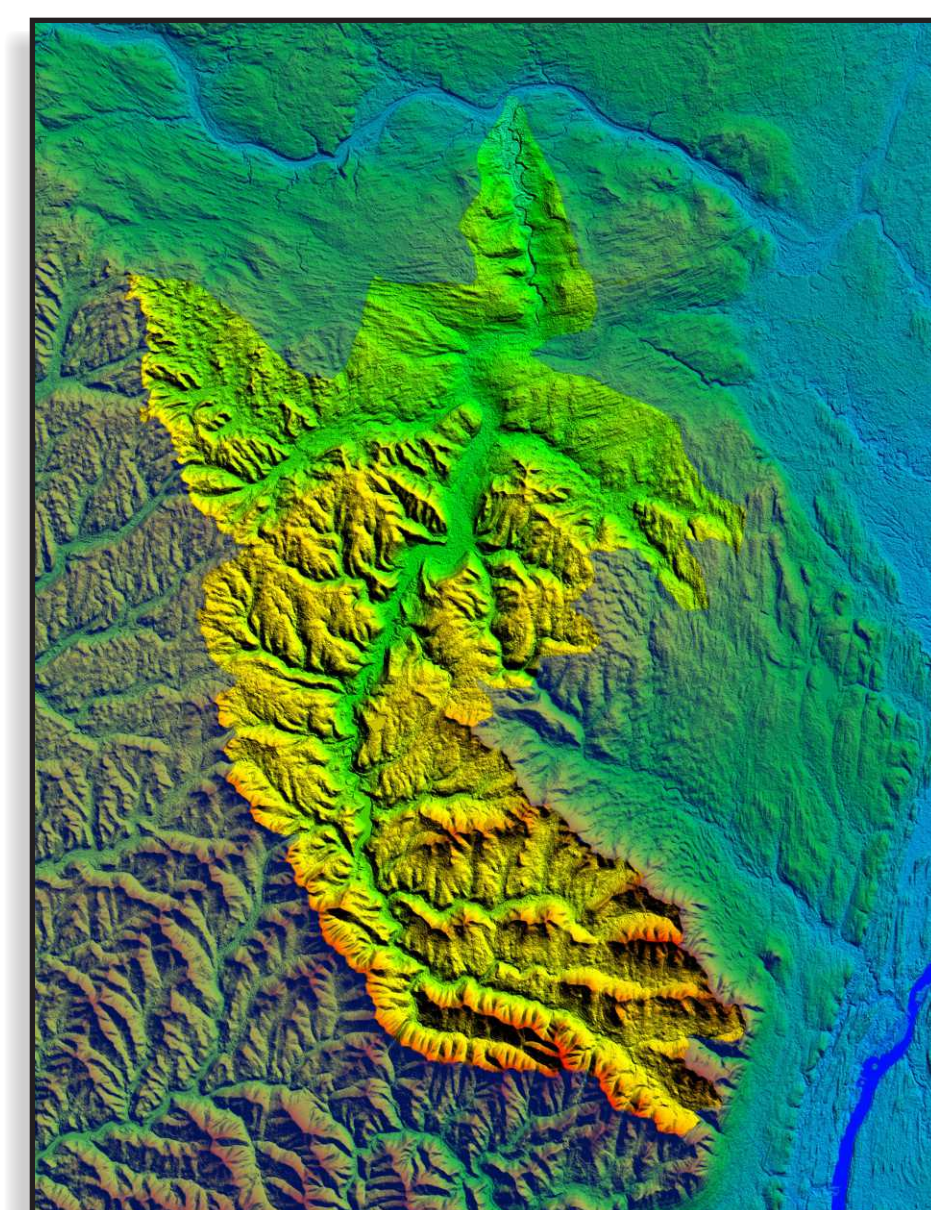
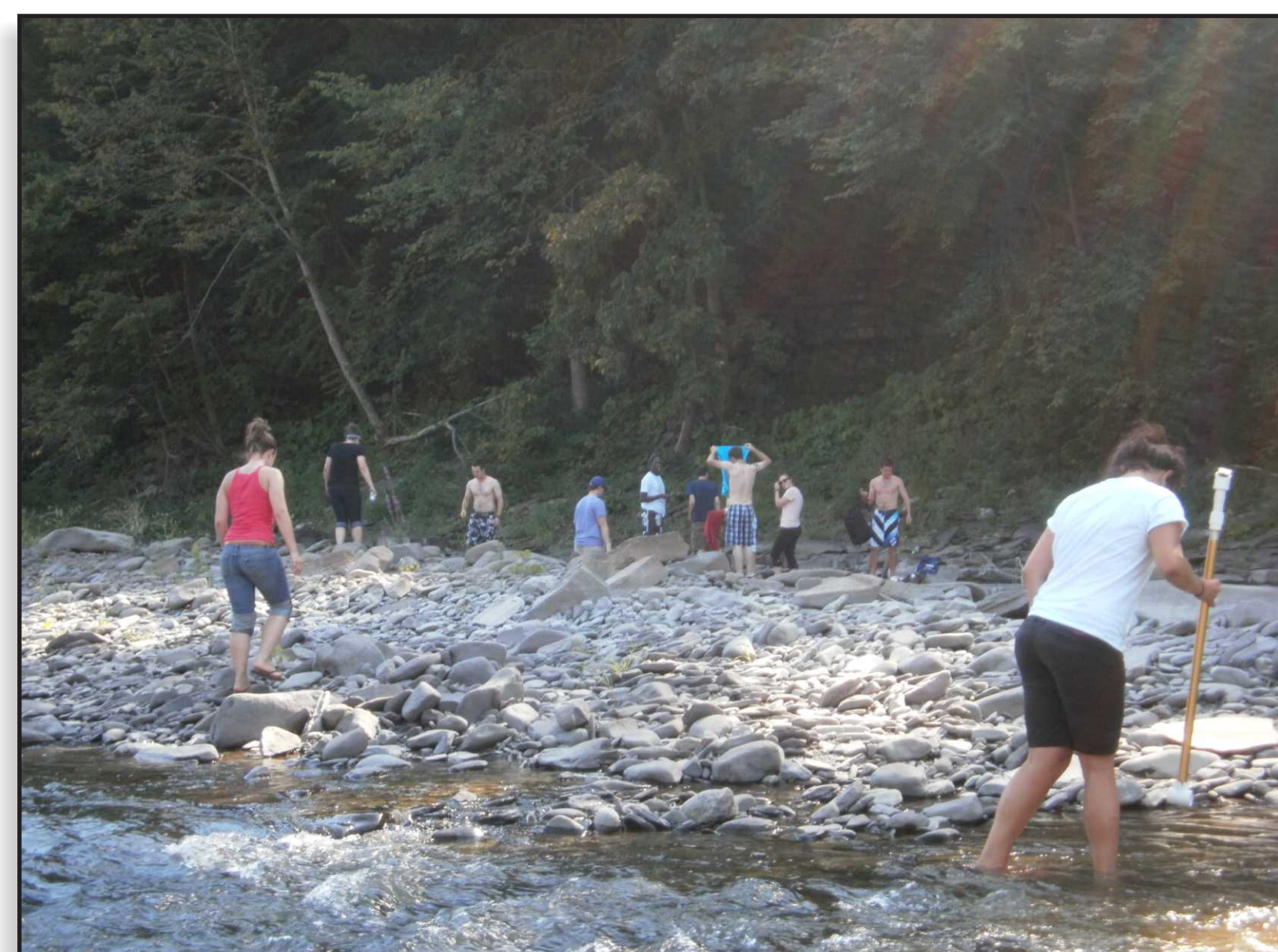


Geography Field Research in Schoharie Valley University of Guelph Student Experiences August 2012

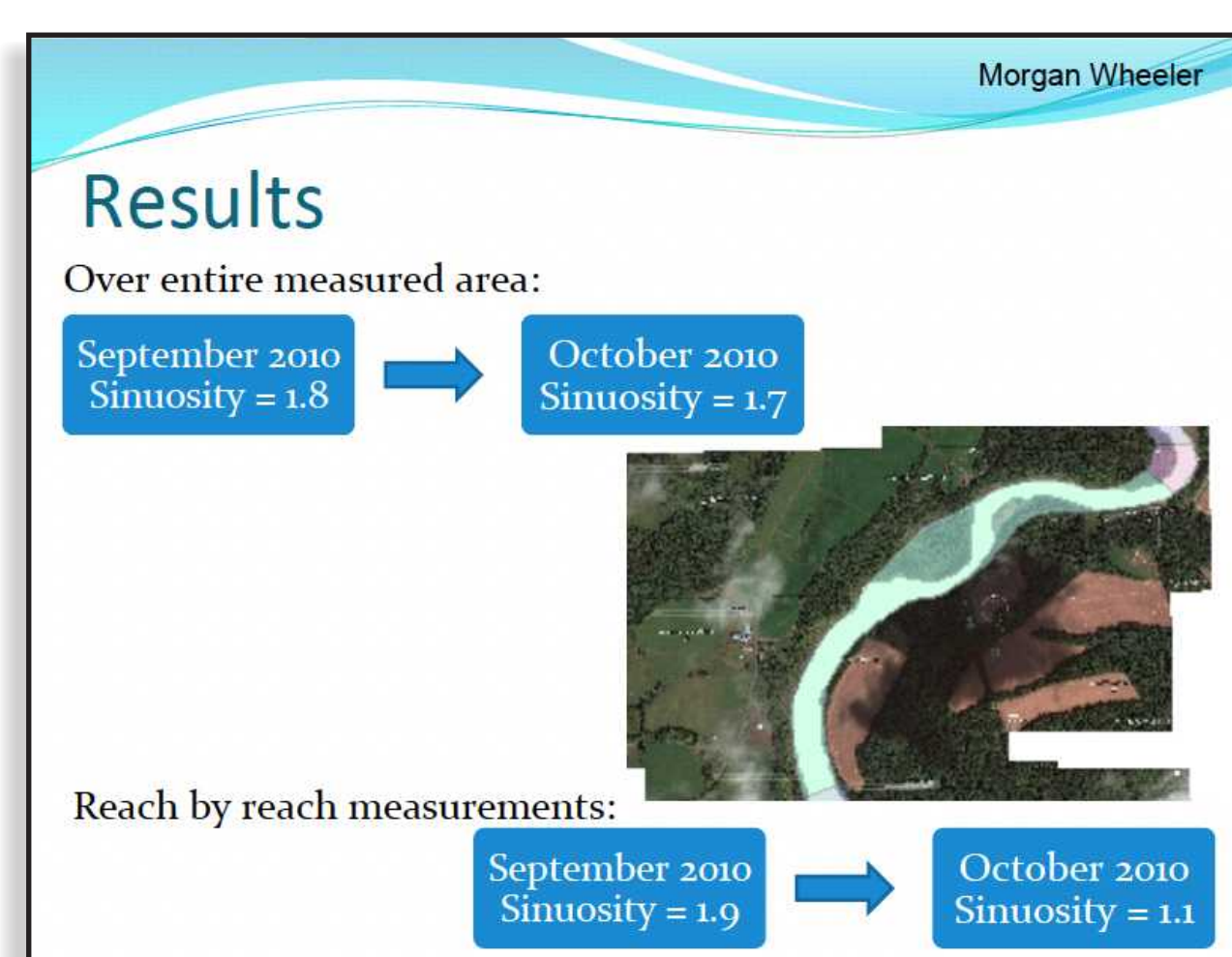
August 2012, students and their three faculty (fearless?) leaders left University of Guelph campus heading for Schoharie Valley (~7 hour drive if the border goes well). Our goal was to immerse ourselves in the Schoharie Valley landscape to study human-environment interactions. Through formal and informal tours, guest-speakers and key informant interviews students collected data toward their independent research projects, which then formed the basis of their collaborative analysis (group projects, listed in the abstract). Included on the poster are photos and samples of research and accompanying the poster are student projects (pdfs are available via email from Jackie (jadyn.cockburn@uoguelph.ca).



Digital elevation model of Schoharie Valley



Students at Schoharie Creek near Burtonsville



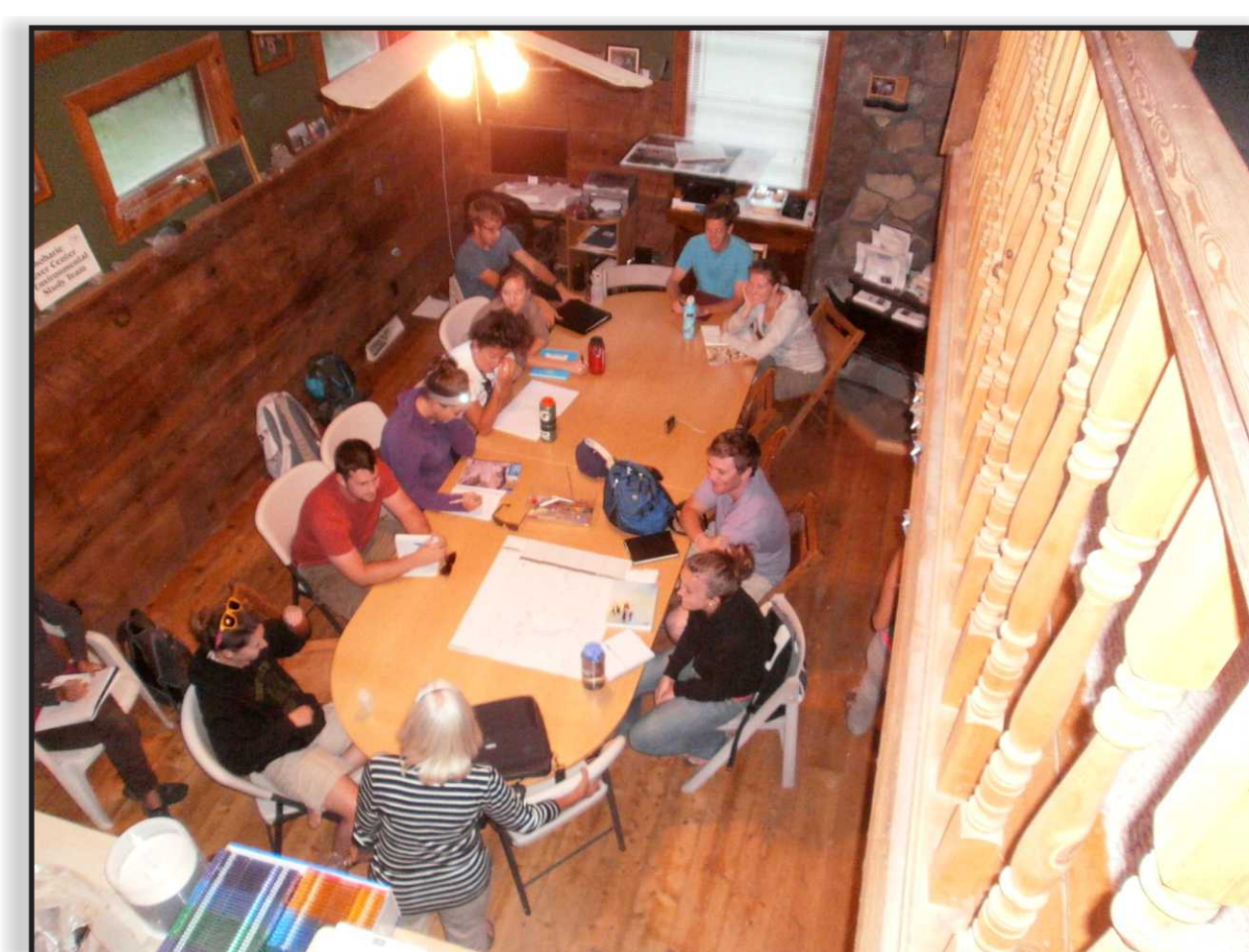
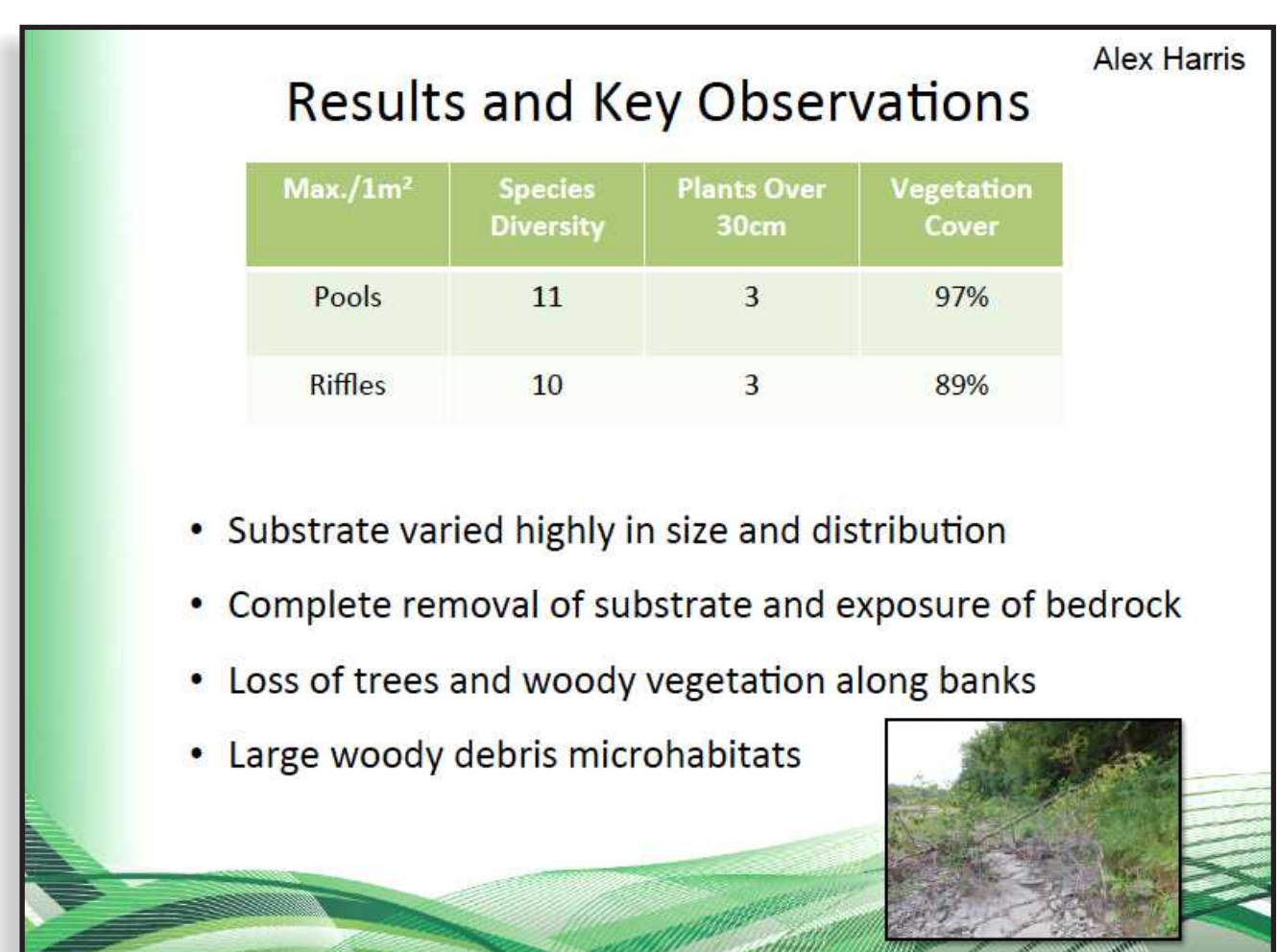
Results from Morgan Wheeler's independent research project 'An analysis of stream sinuosity changes in a section of the northern Schoharie Creek due to August 2011 flood events using air photo analysis'



Visiting one of the stops on the Flood Recovery tour in Schoharie County, August 2012



Analysis and key findings from Alex Harris's independent research project titled, 'Analyzing the vegetative environment along a riffle-pool sequence in Schoharie Creek at Burtonsville one year after a 500-year flood event'.



Speaking with Howard and Sherrie Bartholomew at the Schoharie River Center



Introduction

- "Informal networks can be defined as networks where individuals are connected based on their social or personal relationships rather than work or task related relationships." (Awazu, 2004, p. 63)
- By nature, difficult to observe (Awazu, 2004)
- Existing literature concerns business, planning, ecosystem management

Methodology

- Key informant interviews
 - Alicia Terry, Director, Schoharie County Planning & Development Agency
 - Bartholomews, founding members, Dam Concerned Citizens
- Email/phone follow-up questions
- Scholarly literature

Findings

- At least one instance of informal networking identified between DCC and NYC DEP
 - Bartholomews' acquaintance with a dam engineer
- Many DCC requests have been incorporated into the reconstruction
 - Flood Gates
 - Syphons
 - Sirens
- Difficult to assess exact influence DCC has because of shared interests with County

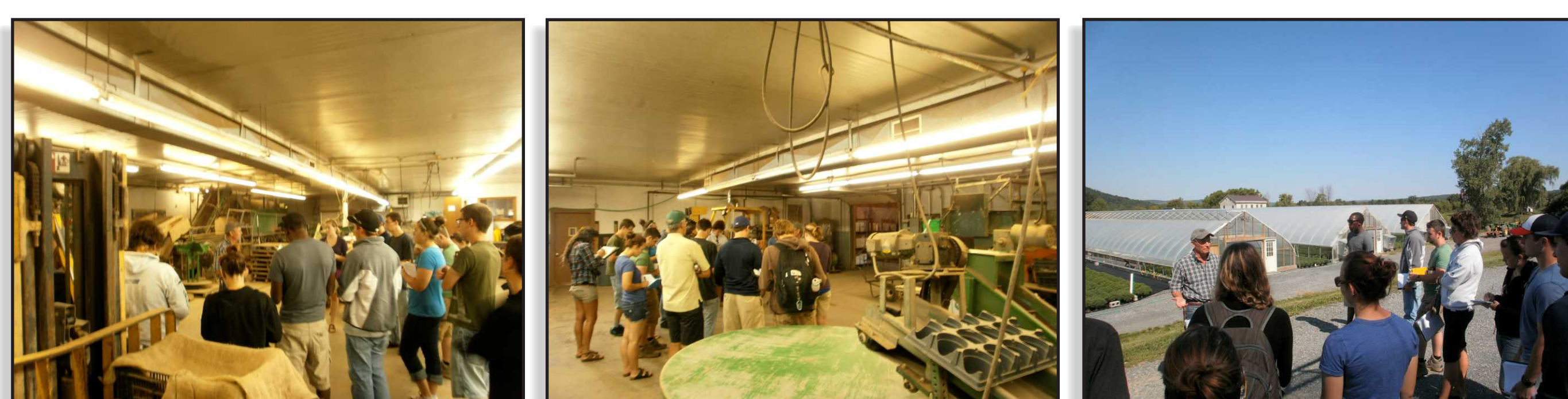
Findings

- Allows DCC to have facts, figures, technical knowledge about Gilboa Dam reconstruction
- Gives DCC credibility, stronger rapport
 - NYC DEP
 - County government
- 'Bridging' links connect to diversity of resources (Newman & Dale, 2005)
- Bartholomews as 'broker' in network (Bodin et al., 2006)

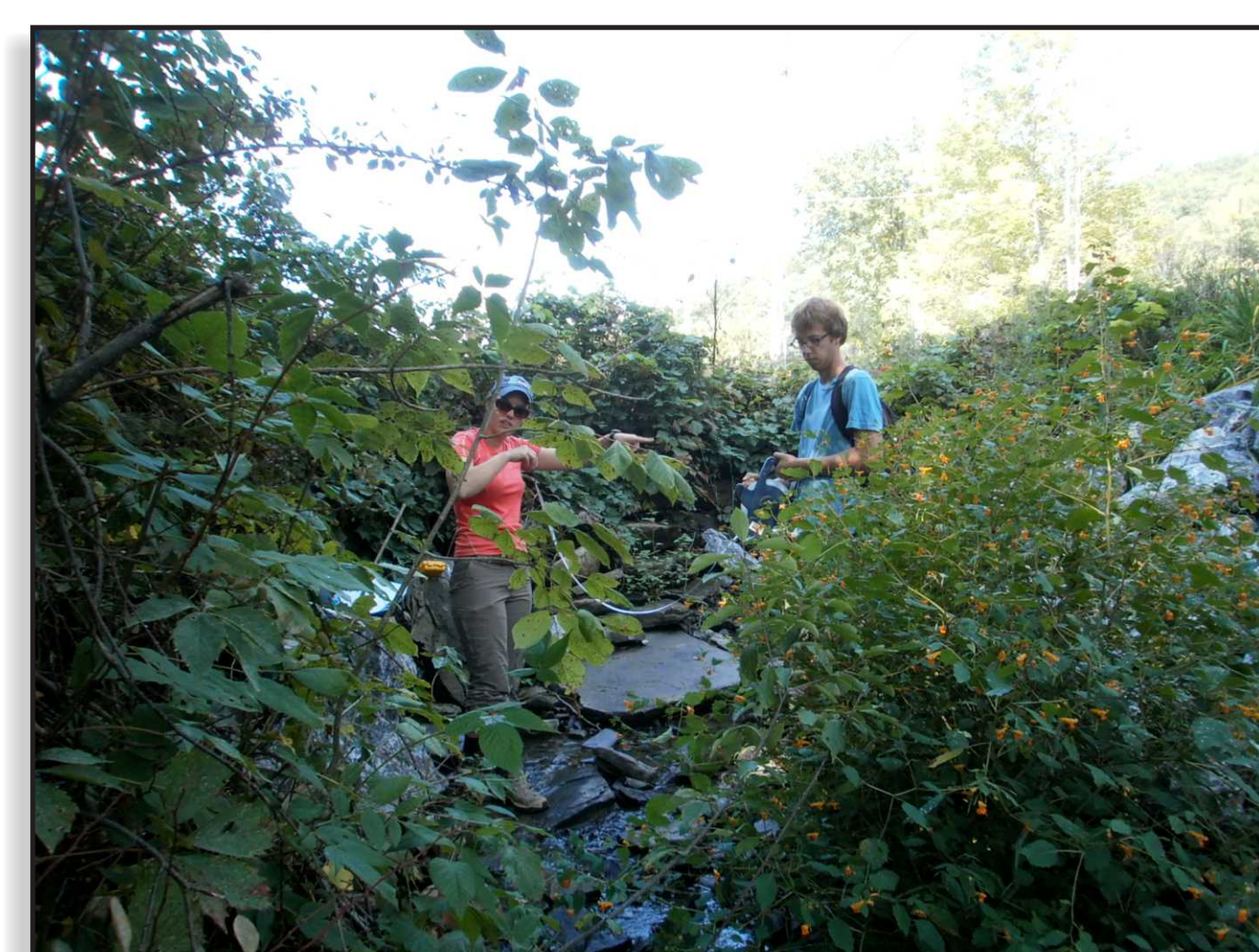
Conclusion

- Informal networking allows DCC access to greater knowledge
- Politicians, NYCDEP are more willing to listen to and act on DCC demands

Informal Networks and Management of the Gilboa Dam - Nick Revington



Visiting Schoharie Valley Farms and Richard Ball. Inside the vegetable processing room (left top and bottom), outside the greenhouses.



Results from Rebecca Warren's research project, 'Modeling the bedload transportation rates at bankfull in Line Creek'

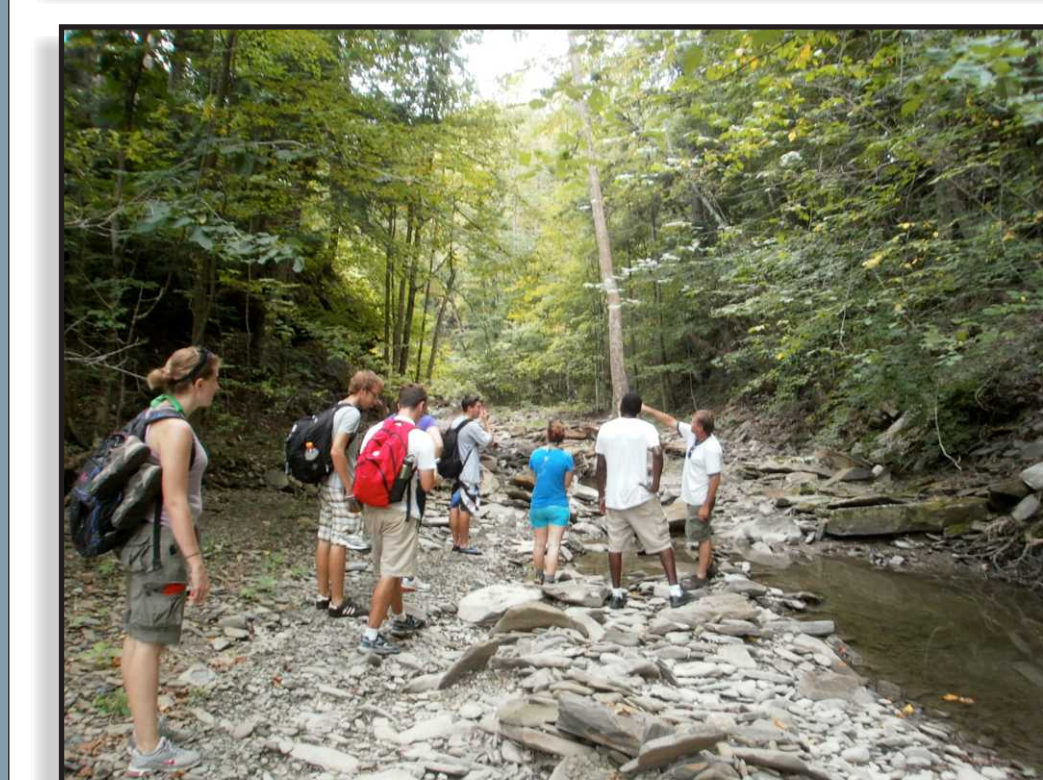
Line Creek

- Severely affected by Hurricane Irene
- Restoration work done
- Channel properties have changed

- Beautiful measurements channel width, wetted perimeter, area, grain size, slope and depth
- Calculated: grain size distribution, bed roughness, velocity
- Manning's equation: $V = (R^{2/3} S^{1/2}) / n$
- transport rate

Site	Velocity (m/s)	Depth (m)	Roughness	Transport Rate (m ³ /s)
Tributary	5.82	0.98	0.062	0.378
Line Creek (Upper)	4.70	1.41	0.064	0.576
Line Creek (Lower)	9.23	1.02	0.045	3.40

- Higher velocities increase transport rate
- What controls velocity?



Hiking along the riparian zone with John McKeeby, Schoharie River Center.



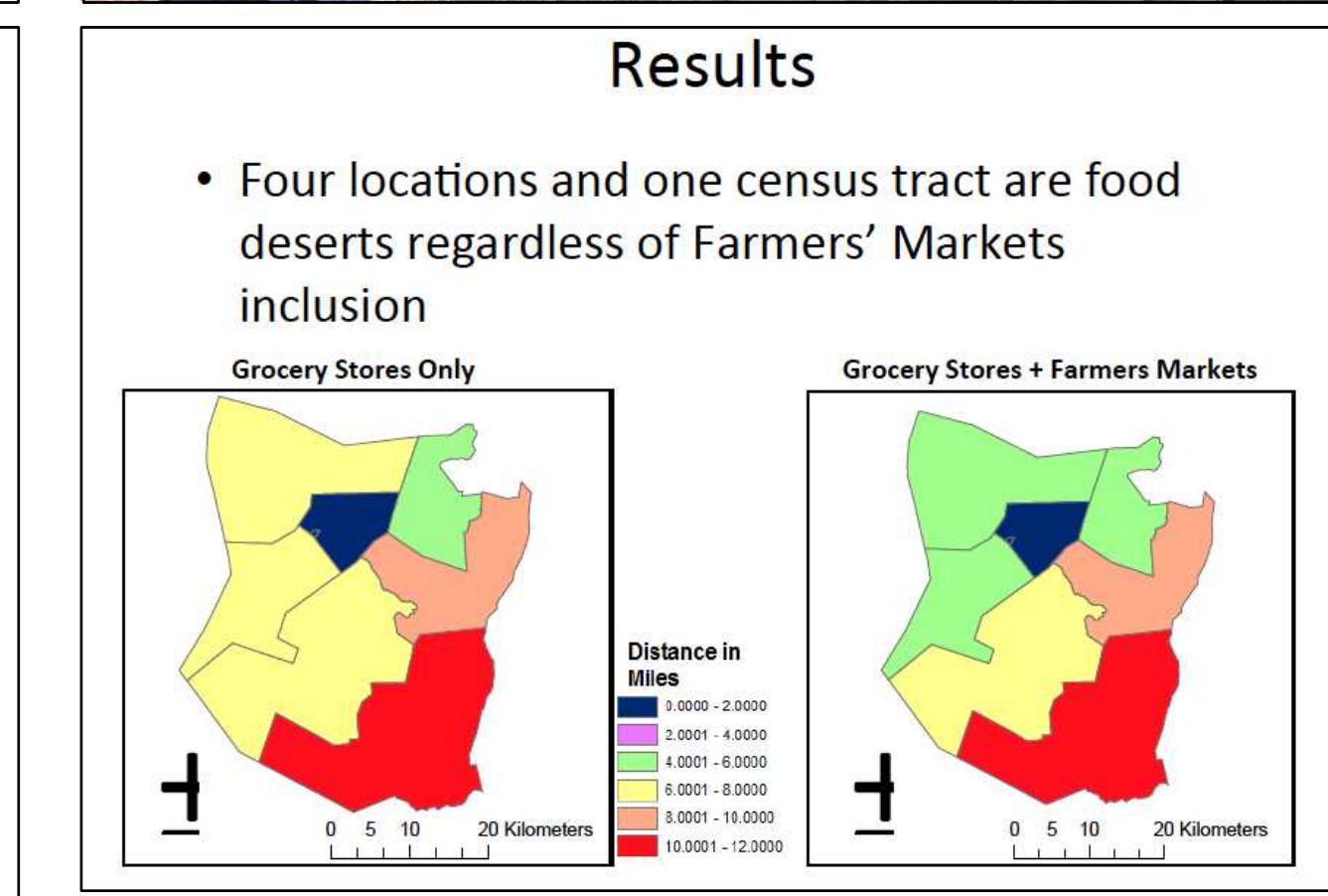
Key findings from Erica Wilkinson's independent research project 'Describing the Difference between Natural Revegetation and Anthropogenic Assisted Revegetation in the Riparian Zone after a Flood'

- Do food deserts exist in Schoharie County?
 - MAIN OBJECTIVE: To find out where food deserts are and what role local food might play in alleviating food insecurity.
- Food deserts
 - Definitions and context
- Schoharie demographics
- Agricultural production



Methodology

- Participant-observation & semi-structured interviews
- Location information of food retailers & farmers markets
 - Google Earth and ArcGIS
- Nearest-neighbour analysis
 - Euclidean distance
- Paired t-test



Implications

- Fits into growing field of GIS analysis of food deserts (McEntee & Agyeman, 2010)
- Identifies potential areas of expansion for local and commercial food vendors
- Risks of dependence on supermarkets as food source (Russell & Heidcamp, 2007)
- Farmers' markets and food prices (Larsen & Gilliland, 2009)

Application & Extension

- Analysis of rural food deserts by Morton & Blanchard (2007)
 - Issues of scale?
- Ground truthing of purchasing habits and health
- More detailed analysis
 - Predictive variables & multivariate modelling (E.g. income, age, race, educational attainment, etc.) (Black et al., 2011)
- Program and policy recommendations

We are extremely grateful to all that helped us during the course, either through interviews, guided tours, formal talks or email answers in the fall. In particular we would like to Acknowledge the following people and organizations:
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Sandy Prokoff, Farm Bureau
John Prokoff, Crossbrook Dairy Farms
Adele Hayes, Jim Hayes and Shannon Hayes, Sap Bush Hollow Farm
Will VanDeValk, NRCS
Cherie Clapper
Ian Shaull
Deb Effner
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Alicia Terry and Zachary Thompson, Schoharie County Planning and Development Agency Office
Assemblyman Peter Lopez
Congressman Paul Tonko

