

Advanced Environmental Seminar Research Projects

Year Instructors

1997 Hansen, Murray, Peaslee, and Peterson

- *Correlations of Land Use to Nitrate Concentrations and Algal Biomass in Selected Sub-Watersheds of Lake Macatawa, Ottawa County, Michigan*
Kate Horjus, Andrew Wyatt, Jessica Black, Shawna Hendrickson
- *An Analysis of Turbidity and Phytoplankton in Selected Stream Basins of the Lake Macatawa Watershed.* Adriana Crain, Jeanine Roberts, Ron Haveman, Kim Lake

1998 Murray, Peaslee and Peterson

- *Effectiveness of Retention Basins within the Macatawa Watershed*
Cindy Bannink, Matt DeBoer, Melissa Powell
- *Preliminary Toxicological Testing of Lake Macatawa Bottom Sediment Holland, MI*
Eric Hiemstra, Kevin Menken, Travis Williams
- *Microbial Abundance and Sediment Composition of Urban and Agricultural Land Uses in the Lake Macatawa Watershed, Allegan and Ottawa Counties, Michigan.*
Jon Brickner, Aaron Jubar, Holly Van Dam, Bethany Wezeman

1999 Bodenbender, Evans, Peaslee, and Peterson

- *The Concentration of E. Coli as a Fecal Coliform vs. the Concentration of Nitrates and Phosphates in Pine Creek*
Brad Peuler, Casey Porter, Dave Powers
- *The Effectiveness of Buffer Strips: Optimum Width versus Economic Cost*
Heather Roy, Junu Shrestha, Dan Wilkens
- *The Effect of Nitrates on the Changing Environment in the Lake Macatawa Watershed*
Chris Cappa, Nate Whitmyer, Colleen Iversen

2000 Bodenbender and Evans

- *Phytoremediation of Phosphates and Nitrates in the Lake Macatawa Watershed Using Wetland Plants*
Nathan Ide, Aaron Petersen, Steve Rypma
- *KHI: An Analysis of the Impact on the Environment from its Operation by Trace Elements and General Groundwater Chemistry*
Abraham Northrup, Jennifer Strehle, Yasemin Tulu
- *Determination of the Extent and Sources of Fecal Contamination in the Pine Creek Watershed Through Indicator Bacteria Analysis*
Kristin Brondyke, Carrie Lowe, David Nash, Martin Van Oort

2001 Bodenbender, Evans and Peterson

- *How do Passing Trains Affect the Noise Level Profile in the Hope College Vicinity?*
Jacob Cain, Brian Flickinger, Laurie Beth Nederveld, Sara Maile
- *Assessing the Presence of Antibiotic Resistance of Bacteria in Surface Waters in Two Farm Areas* Spencer Bacon, Adrienne Hull, Erin Wysocki

2002

not offered

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2003

not offered

2004 Evans and Peterson

- *Environmentally Driven: The Relationship Between Actual Speed and the Posted Speed Limit, Ambient Light and Traffic Density*
Christopher Avery, Jennifer Bassman, Sara Wade
- *Copper, Lead, Zinc and Phosphorus in Smallenburg Park Rain Gardens*
Heather Mentzer, Emily Schmidt

2005 Evans and Peaslee

- *Examining No Till vs. Till Methods in the Lake Macatawa Watershed*
Natalie Hoogeveen, Laura Thomas, Kristen McPhee
- *Composition and Effectiveness of Filtration in Natural and Mitigated Wetlands in the Macatawa Watershed*
Emily Timmons, Kyle Williams

2006 Peaslee and Sullivan

- *Why is the Black River Black?*
Amanda Brisbin, Eric Johnson
- *Tannin Leaching in the Macatawa Watershed*
Karl Buter, Elliott Eisaman, Josh Frushour
- *Copper-Washed Soil Toxicity and the Aquatic Arthropod *Daphnia magna*: Effects of Copper Sulfate Treatments*
Amanda Bylsma, Teri O'Meara

2007 Bodenbender

- *The Effectiveness of the Upper Macatawa Area Restoration*
Trevor Daly, Tyler Depke, Stephen Pels, Meredith Praamsma

2008 Peaslee and Sullivan

- *Quantitative Analysis of the Relationship Between Riparian Buffer Widths and Suspended Stream Sediments* Chelsea Lynes, Andrew VanderYacht
- *Shuttle Bus vs. Shuttle Van: A Cost-benefit Analysis of Hope College Transportation*
David Fraker, Jeffrey Mastin, Colleen McKinnie
- *The Relationship Between Stream Bank Erosion, Vegetative Cover and Soil Types*
Joel Evenhouse, Edward Helderop, Allison Rogowski
- *Fueling the Debate: Exploring the Feasibility of Algae as a Biofuel in Holland*
Sarah Brokus, Derek Duncan, Morgan Willming

2009 Peaslee

- *Turbidity as a Limiting Factor to Algae Growth in the Macatawa Watershed*
Rachel Burkhart, Wyatt Curry, and Peter Van Heest
- *Detection of Trace Volatile Organics in Small Roadway Bodies of Water in the Lake Macatawa Watershed* Megan Haserodt and Drew Shaw

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2010 Peaslee

- *A Recycling Initiative at Hope College*
Jonathan Brooks, Adam Holman and Kathrin Nuetzmann
- *Identifying Sources of Fecal Coliform in Lake Macatawa via Antibiotic Resistance Analysis*
Evan Arendsen, Ali English, Keri Smith
- *Carcinogens with Lake Macatawa*
Dan Anderson, Kyle Arndt, Calab Nyboer

2011 Peaslee and Peterson

- *Analysis of Green Roof Runoff*
Nate Erber, Jillian Farkas, Elizabeth Heinz and Ingrid Slette
- *Evaluation of Elemental Analytes in Street Sweeper and Catch Basin Sediment in Holland MI*
Dean Hazle, Sioned Sitkiewicz and Rachel Medina

2012 Hansen

- *Uptake of Phosphorus and Iron in Duckweed*
Eric Greve, Laurie Stubenrauch and Nyun Hein
- *Pharmaceuticals Concentrations in Plants Irrigated with Brown Water*
Kyle Falk and Kelly Petrasky

2013 Peterson

- *Heavy Metal Uptake in Lake Macatawa Fish*
Austin Homkes, Rachel Krebs and Connor Mulcahy
- *Bioaccumulation of Lead in Neogobius melanostomus within Lake Macatawa*
Nicholas Blogin, Austin Krehel and Kelly Krueger

2014 Hansen and van der Weijden

- *Analysis of particulate matter in the Lake Macatawa Watershed air*
Hanna Behrendt, Audrey LaRoche and Oliver Purcell
- *Analysis of pH buffer capacity of soil in the Lake Macatawa Watershed.*
Mitchell Gage, Katie van Zytveld and Scott Warner
- *Lake Macatawa dredging reuse analysis*
Evelyn Ritter, Drew Goodman and Daniel Leahy
- *Preventing phosphorous from entering Lake Macatawa with the use of vegetative barriers*
Derek Karadsheh, Miranda Ulmer and Randy Wade

2015

Not offered

Advanced Environmental Seminar Research Projects

2016 (May) Peaslee

- *Analysis of Phosphate Flux in Response to Snowmelt and Rain Events in the Macatawa Watershed*
Sarah Ratliff and Kenny Swift Bird
- *Correlation Between Road Salt Use and Na⁺ and Cl⁻ in Urban Waters Within the Lake Macatawa Watershed*
Jackie Plowman and Kelsey VanEyl-Godin
- *Effects of Suspended Sediments on Daphnia Magna*
Tommy Jenkins, Ben Van Gorp and Alexandria Watts

2016 (December) Bodenbender

- *Antifouling Paints: heavy metals pollution in Lake Macatawa*
Cody Berkobien, Amanda Dort and Elijah Riggen
- *Effectiveness of Phosphorus Retention in Constructed Wetlands*
John Harron, Monica Elliott and Lea Vehling

2017 Bodenbender

- *Plastics in Lake Macatawa Sediments*
Erin Brophy, Karen Frink and Max Huffman
- *Mushrooms and other Fungi as Bioindicators of Heavy Metals in Sites Associated with Industrial Activity in the Macatawa Watershed*
Amber Bosch, Kathleen Fast and Brooke Mattson