

Lindsay R. Cain

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EDUCATION

University of Toledo (Toledo, OH)

- **Doctoral Student**, Biology (Ecology track), August 2012-Present
- Advisor: Dr. Daryl Dwyer

University of Michigan School of Natural Resources and Environment (Ann Arbor, MI)

- **Master of Science**, Natural Resources and Environment: Aquatic Sciences, December 2012
- SNRE Student Government, Internal Communications Chair (April 2010-May 2011)
- Sustain-a-Ball, student gala, Committee Chair, SNRE (January 2010-March 2011)
- Courses: life cycle assessment (LCA), fluvial ecosystems, ecosystem ecology, geographic information systems (GIS), natural resource statistics, environmental assessment, water quality management, ecological risk assessment
- Advisor: Dr. Thomas Johengen,
CILER Associate Research Scientist
CILER - School of Natural Resources and the Environment
University of Michigan
4840 S. State Rd
Ann Arbor, MI 48108-9719
- Thesis: Assessment and compilation of water quality data for a two-dimensional water quality model of Lake Erie over a decadal time period

Alma College (Alma, MI)

- **Bachelor of Science**, Biology, April 2009
- Minors in Environmental Science and Mathematics
- Phi Sigma Sigma Fraternity (January 2007-April 2009), Scholarship Chair (2008)
- Alpha Phi Omega Service Fraternity (Fall 2006-April 2009)
- Biology Club/Beta Beta Beta Biology Honorary (Fall 2006-April 2009)
- Alma Leadership Alliance (Fall 2006-April 2009)
- Relay for Life, Team Development Chair (Fall 2007-April 2009), Team Captain (2006-April 2009)
- Students United for Nature, Public Relations Chair (2008-April 2009)
- Panhellenic Council, Recruitment Chair (2007)
- Center for Responsible Leadership, Leadership Fellow (2006-April 2009)

TEACHING INTERESTS AND EXPERIENCE

Teaching Interests: Environmental Science, Biology, Ecology

Alma College, Laboratory Teaching Assistant (Alma, MI) September 2006-April 2009

- Courses taught: General Biology for majors, General Biology for non-majors, Organismal Biology
- Instructed a laboratory classroom, (20 students) under the direction of an Associate Professor
- Assisted students with completion of biology labs each week.
- Answered questions, explained concepts, and graded lab reports.

RESEARCH INTERESTS AND EXPERIENCE

Research Interests: Current research involves work with a computer model, data input files, and statistical analysis to determine relationships between *Microcystis* and nutrient inputs into the system. Other research interests include water quality analysis, specifically in relation to nutrient loading and cycling and water quality relationships within aquatic systems.

Cooperative Institute for Limnology and Ecosystems Research (CILER), Research Associate (Ann Arbor, MI) May 2010-August 2012

- Filtered water samples from the Saginaw Bay as part of a monitoring project during the 2010 sampling season.
- Filtered and collected water samples from Lake Erie for the OHH (Oceans and Human Health) project during the 2010 and 2011 sampling seasons.
- Researching literature related to Lake Erie, *Microcystis*, and other harmful algal blooms, and phosphorus impacts on such for thesis report and potential publications.
- Working with EcoLE, an ecological model of Lake Erie, to help improve its ability to model and predict *Microcystis* blooms.
- Performing data analysis and writing a scientific report.

Alma College Biology Department, Research Associate (Vestaburg, MI) January 2008-April 2009

- Collected and analyzed water samples from a bog dystrophic lake.
- Presented data orally at both Michigan Academy and Alma College Honor's Day.

Alma College Environmental Studies Department, Research Student (Alma and St. Louis, MI) June 2007-April 2009

- Worked with two local high schools on the Pine River Monitoring Project to teach students about water quality, sampling water, and performing water quality analysis.
- Collected and tested water samples from the same sites as the high school students as a quality control check.
- More information about the project and collected data can be found at:
<http://sites.google.com/site/pinerivermonitoringproject/>

Alma College Currie Scholarship, Research Associate (Alma, MI) May 2007-September 2007

- Collected and tested water samples from two streams both up and downstream from a Confined Animal Feeding Operation.
- Analyzed data, looking for statistical significance.
- Presented research to the community at Alma College Honor's Day.

Alma College Environmental Studies Department, Research Student (Alma, MI) January 2006-May 2008

- Examined Environmental Protection Agency Draft of Source Migration Report for the Superfund site in St. Louis Michigan.
- Researched literature relating to Confined Animal Feeding Operations (CAFOs) and water quality analysis for future departmental studies and publications.
- Sampled streams near CAFOs for analysis leading to Currie Research Scholarship.

PROFESSIONAL EXPERIENCE

Art of Leadership Foundation, Program Coordinator (Lansing, MI) October 2011-August 2012

- Mentoring and working with 5-10 high school students on leadership skills and future goals.

- Working with a middle school leadership class to organize and assist coaches and students in leadership course work and developing five year personal life visions for the 15-20 middle school students involved.
- Organizing activities and service events for students involved.
- Providing necessary resources and support for the students and other volunteers involved in the program.

Ecology Center, Michigan Green Healthcare Committee (MGHC) Research and Communications Intern

(Ann Arbor, MI) October 2011-June 2012

- Helping grow membership of the Committee.
- Communicating between Michigan Health and Hospital Association (MHA) members, MGHC members, and other potential members.

Ecology Center, Ann Arbor, Healthy Stuff Technician and Research Assistant

(Ann Arbor, MI) September 2009-May 2011

- Operated an XRF machine to test consumer products for chemical composition.
- Helped keep information on the healthystuff.org website updated and accurate.
- Answered emails and phone calls left by visitors to our website about test results and chemicals in consumer products.
- Participated in community events to help inform citizens about chemical presence in consumer products.
- Educated lawmakers during advocacy days in conjunction with the Michigan Network for Children's Environmental Health.

PRESENTATIONS

"Water Quality of a Bog-dystrophic Lake" power presentation at Michigan Academy of Science, Arts, & Letters Annual Meeting, Wayne State University, Detroit, MI (March 2009) and Kapp Honors Day, Alma College, Alma, MI (April 2009)

"Impacts on Dissolved Oxygen Concentrations in Surface Water by Large Livestock Operations" poster presentation at Kapp Honors Day, Alma College, Alma, MI (April 2008)

AWARDS AND FELLOWSHIPS

- Thesis funding through work with an Oceans and Human Health (OHH) grant.
- Academic Merit Award, University of Michigan School of Natural Resources and Environment, \$5,000 (2009)
- Currie Scholarship, Alma College, \$3,000 (2007)
- Trustee Honor's Scholarship, Alma College, \$13,000 per year (2005-2009)

TECHNICAL SKILLS

- Intermediate use of Microsoft Word, PowerPoint, Excel
- Beginner use of Stella, SimaPro 7.1, PASW/SPSS, Systat, ArcGIS, Lahey-Fujitsu Fortran v.7.2, R
- Intermediate skills in HACH Water Quality Analysis Tool Kit procedures.