

**Audra Croskey**  
Invasive Species Modeling Lab  
Lake Erie Center and Department of Environmental Science  
University of Toledo

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**EDUCATION**

*University of Toledo, Toledo, Ohio*

**Master of Science**

Concentration: Ecology  
GPA: 4.0

**Anticipated Completion:**  
**May 2009**

*Ashland University, Ashland, Ohio*

**Bachelor of Science**

Major Area: Environmental Science  
GPA: 3.939

**May 2007**

**RESEARCH**

*Current Master's Thesis Research:*

- Spatial modeling of the emerald ash borer (*Agrilus plannipennis*) invasion in Ohio
- Developed model to show the spread of the invasion, incorporating both natural and long-distance dispersal
- Calculated the cost of the invasion to the residents of Ohio
- Used a genetic algorithm for rule-set production to determine the main factors responsible in long-distance dispersal

*Undergraduate Research:*

- Genetic patterns of the invasive reed canary grass in the Ashland University Wetland Preserve
- Employed genetic techniques to determine the number of introductions into the wetland
- Developed new technique to extract DNA from reed canary grass
- Used microsatellite markers to compare populations

**RELATED EXPERIENCE**

- *Teaching Assistant, University of Toledo, Department of Environmental Sciences*  
Instructor: Dr. Christine Mayer, Assistant Professor of Ecology **Spring 2009**  
Assisted with the graduate-level course "Biostatistics." Developed, assigned, and graded all homework.
- *Graduate Research Assistant, University of Toledo, Department of Environmental Sciences*  
Advisor: Dr. Jonathan Bossenbroek, Assistant Professor of Ecology **2008**  
Assisted Dr. Bossenbroek in his research on the emerald ash borer under a USDA Program on Invasive Species Management grant.
- *Teaching Assistant, University of Toledo, Department of Environmental Sciences*  
Instructor: Dr. Stacy Philpott, Assistant Professor of Ecology **Fall 2007**  
Taught the undergraduate course "Environmental Problems." Instructed students each week in laboratory exercises, and conducted field trips to the local arboretum and Ottawa River. Created several quizzes over the course of the semester. Graded all worksheets, quizzes, and papers assigned in the course.
- *Directed Laboratory Research, Ashland University* **2005 – 2006**  
Advisor: Dr. Soren Brauner, Director, Environmental Science program  
Developed research project transforming the University Herbarium into an online, searchable database. Photographed each specimen sheet; transferred to a computer program. Created an entry for each sheet

containing collector name, location, data, species, and family. Linked entry to picture. When complete, will convert into a website, complete with search engine.

- *Geology Lab Assistant, Ashland University* **2005 – 2007**  
Supervisor: Dr. Nigel Brush, Assistant Professor of Geology  
Responsible for the sorting, cleaning, labeling, and other maintenance to the rock, mineral, and fossil collection. Aided in the organization of the recently constructed Geology storage room, including creation of several display windows.

#### **WORK EXPERIENCE**

- *Academic Advising Assistant, Ashland University* **2005 – 2007**  
Supervisor: Melissa Fenn, Coordinator, Academic Advising Office  
Advised students on academic probation in areas such as study skills, time management, note-taking, organizing their academic life, textbook reading, test preparation, learning styles, and stress management. Also gave presentations on these topics to incoming freshmen, athletes, and other student organizations. Conducted weekly one-on-one meetings with students on academic probation.
- *“America Reads” tutor, Osborne Elementary, Ashland, Ohio* **2004 – 2005**  
Supervisor: Brit Bradford  
Tutored underprivileged third and fourth grade students in reading skills and comprehension at a local elementary school. Worked with four or five students at a time, creating games and activities to improve their test scores.

#### **POSTER PRESENTATIONS**

- Sigma Xi Student Research Symposium, 2008: *Modeling the costs of the emerald ash borer invasion in Ohio*

#### **GRANTS AND OTHER FUNDING**

- Sigma Xi Grant-in-Aid of Research, 2008; \$500
- Ohio Board of Regents Fellowship, 2007; \$7,000
- Ohio Academy of Science scholarship, 2006; \$2,500

#### **MEMBERSHIPS/AWARDS**

- President, Beta Beta Beta, National Biology Honorary, 2006-2007 academic year  
Duties included organizing and leading all meetings and all activities, including fundraisers, group outings, and student/faculty/guest speakers. Also oversaw the other 4 positions, delegating duties to each. Worked with the faculty advisor on new and inventive methods for educating the public and increasing interest in the sciences.
- Alpha Lambda Delta, National Honor Society
- Newman Catholic Campus Ministries
- Environment Team
- Outstanding Senior Award, Biology Department, April 2007
- Who’s Who Among Students in American Universities and Colleges, 2006-2007 academic year
- Outstanding Junior Award, Biology Department, April 2006
- Ashland University Dean’s List, 8 semesters

#### **COMMUNITY SERVICE/INVOLVEMENT**

- Maumee Bay State Park Nature Center volunteer, 2008
- Northwest Ohio District 2 Science Day Judge, 2008
- Mohican District Science Day Judge, 2007
- Led science demonstrations for “Sibs ‘n Kids Weekend” at Ashland University, 2006-2007
- Student Speaker, Kettering Science Center Dedication Ceremony, 2006
- Swim for Diabetes, 2005
- Hurricane Katrina fundraiser, 2005

#### **REFERENCES**

*Available upon request*