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## Academic Background

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### *Graduate Student*

University of Arizona  
Department of Ecology and Evolutionary Biology  
August 2007 – Present

*Bachelor of Arts in Biology cum laude*, 2007.

Programs of Distinction (Honors Programs):

- Science Research Fellows
- Information Technology Associates Program

*Visiting Non-degree-seeking Student*, University of Arizona, June 2006-December 2006

*Academic Honors Diploma*, Elwood Community High School, 2003

## Fellowships, Awards and Honors

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- 2009-2010 *NSF BioME Fellowship* – University of Arizona
- 2008 *NSF GRFP* – Honorable Mention
- 2007-2009 *Science Foundation of Arizona Graduate Fellowship*
- 2004-2007 *Science Research Fellows* – DePauw University

## Research Experience

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*2006 Research Assistant, Dr. Goggy Davidowitz – NSF Research Experiences for Undergraduates Grant, University of Arizona*

Investigated the exchange of protein, carbohydrate, lipid, carbon, nitrogen and phosphorus between host plant *Datura wrightii* and herbivore *Manduca sexta*. Measured carbon isotopes in nectar, and assisted Dr. Ruben Alarcon with *Manduca sexta* and *Datura wrightii* pollination studies.

*2005-2006 Research Group Leader, Dr. Wade Hazel – NSF Collaborative Research at Undergraduate Institutions Grant, DePauw University*

Used field and laboratory experiments to examine optimal timing of diapause in relation to body size for a swallowtail butterfly guild (*Papilionidae*). Investigated the effects of temperature and diet on *Papilionidae*, comparing intra- and interspecific growth rates and pupal masses. Directed field and laboratory work between two other laboratories.

*2005 Research Assistant, Dr. Wade Hazel – Genetics Laboratory, DePauw University*

Used DNA extraction, amplification (PCR), and restriction enzymes to examine distribution of a new barnacle haplotype in the Gulf of Mexico

## Teaching Experience

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*2008 Graduate Teaching Assistant, University of Arizona*

Course: Ecology, Professor Mitchel Pavao-Zuckerman

*2007 Guest Lecture – Eye Physiology, DePauw University*

Course: Animal Physiology, Professor Pascal Lafontante

2005 Undergraduate Teaching Assistant, DePauw University

Course: Orienteering and Vegetation Mapping in the DePauw University Nature Park, Professor Lauren Howard

## Presentations

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### Talks

- *Bryan R. Helm and Goggy Davidowitz*. "The Physiological Basis for the Cessation of Growth in *Manduca sexta*: What is the Critical Weight?" Society for Integrative and Comparative Biology, January 7, 2009.
- *Bryan R. Helm, Goggy Davidowitz, Greg Barron-Gafford*. "Ecological Stoichiometry of a host-plant/herbivore system: Effects of age, size, and nutrient conditions on plant nutritional value." DePauw University Chemistry Department Seminar Series, April 19, 2007.

### Posters

- *Bryan R. Helm, Goggy Davidowitz, Greg Barron-Gafford*. "Ecological Stoichiometry of a host-plant/herbivore system: Effects of age, size, and nutrient conditions on plant nutritional value." Presented at DePauw University, February 2007.
- *Kyra Reed, Bryan Helm, et. al.* "The Timing of Diapause in Swallowtail Butterflies." Presented at the Midwestern Ecology and Evolution Conference, March 2007.
- *Ashley R. Amodeo, Bryan R. Helm, Lauren M. Hoffmann, Ashley G. Maire*, "The Evolution of Life History Strategies in Swallowtail Butterflies: Trade-off Between Body Size and Larval Growth Period." Presented at the Midwestern Ecology and Evolution Conference, March 2006
- *Ashley R. Amodeo, Bryan R. Helm, Lauren M. Hoffmann, Ashley G. Maire*, "The Evolution of Life History Strategies in Swallowtail Butterflies: The Timing of Diapause." Presented at the Midwestern Ecology and Evolution Conference, March 2006
- *Bryan Helm et. al.* "Examining the Potential for Local Adaptation of *Apocynum cannabinum* at an Abandoned Limestone Quarry." Presented at the Midwestern Ecology and Evolution Conference, March 2005

## Professional Meetings and Conferences

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- 2009 Society for Integrative and Comparative Biology, Boston, MA
- 2007 Midwestern Ecology and Evolution Conference, Kent, OH
- 2006 Midwestern Ecology and Evolution Conference, St. Louis, MO
- 2005 Midwestern Ecology and Evolution Conference, Carbondale, IL