

CURRICULUM VITAE

Leigh Anne Harden, Ph.D.

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EDUCATION

- 2013 Ph.D. Marine Biology. University of North Carolina Wilmington, Wilmington, NC.
Adviser: Dr. Amanda Southwood Williard
- 2007 B.S. Biology. Davidson College, Davidson, NC.
- 2005 James Cook University, Queensland, Australia. July-Dec.

PROFESSIONAL AND ACADEMIC APPOINTMENTS

- 2016-present **Assistant Professor of Biology**, Department of Biological Sciences, Benedictine University, Lisle, IL.
- 2015-2016 **Assistant Term Professor of Biology**, Department of Biological Sciences, Benedictine University, Lisle, IL.
- 2014-2015 **Assistant Professor of Biology & Postdoctoral Research Associate**, Department of Biology, Loyola University Chicago, Chicago, IL.
Adviser: Dr. Joseph Milanovich
- 2014 **Adjunct Assistant Professor of Biology & Postdoctoral Fellow**, Davidson College, Davidson, NC.
Adviser: Dr. Michael Dorcas

INSTRUCTIONAL ACTIVITY

Benedictine University

BIOL197: Principles of Organismal Biology
BIOL364: Ecology Lab
BIOL393: Great Ideas in Biology and Medicine
BIOL205: Environmental Science
BIOL389: Undergraduate Research
BIOL258: Human Physiology
BIOL259: Human Physiology Lab
BIOL291: Conservation Biology and Biodiversity

Loyola University Chicago

BIOL265: Ecology
BIOL 111: General Biology Lab – Biodiversity
BIOL 112: General Biology Lab – Biodiversity

Davidson College

BIOL112: Organisms, Evolution, and Ecosystems Lecture & Lab
Group Investigations: Research on Southeastern Amphibians & Reptiles (Co-taught)

University of North Carolina Wilmington

BIO240 & 241: Human Anatomy and Physiology Lab

MENTORSHIP “*” indicates that student project resulted in publication

- 2016-2017 Graduate students:
 Armand Cann. 2016-present. MS Student @ Loyola University Chicago. MS Committee Member and co-adviser to MS Thesis: *Behavioral and physiological ecology of augmented juvenile Blanding’s Turtles*.
Undergraduates (Benedictine University):
 Sumaiya Shahjahan. 2016-present. Project title: *Hematological health and immune response of captive-reared, re- released juvenile Blanding’s turtles (Emydoidea blandingii)*
 Tim Benjamin & Alexandra Karwowska. Summer 2017 Benedictine University Natural Sciences Summer Research Program (NSSRP). Project titles: *Ecology of Blanding’s Turtles in Northern Illinois. Examining Toe Nail Tissue of Adult Blanding’s Turtles for Traces of Methylmercury*.
 Summer 2017 BEST Program students working at the Jurica Suchy Nature Museum at Benedictine University. Project description: *Creating a Blanding’s Turtle Educational Discovery Box as part of the Discovery Box Loan Program*.
- 2015-2016 Undergraduate (Benedictine University):
 Jessica Nelson. Project Title: *Do Variations in Behavior & Environmental Temperatures Affect Blood Chemistry of overwintering Diamondback Terrapins?*
- 2014-2015 Undergraduates (Loyola University Chicago):
 Co-mentored: Jennifer Fernandez. Project title: *Seasonal Blood Chemistry of Ornate Box Turtles in Restored Prairies of North-central Illinois*.
 Co-mentored: Milica Radanovich, Stanislaw Warcholek, Emily Gerber, Nojan Rastegar. Projects focused on various effects of land use and climate change on amphibians and reptiles in the Midwest.
- 2013-2014 Undergraduates (Davidson College):
 * Whitner Chase & Benjamin Hardie. Project title: *Evaluation of two individual identification techniques for spotted salamanders (Ambystoma maculatum)*
 *Justin Strickland & Cyrus Bahram. Project title: *Life-history costs of reproductive behaviors in a wetland-breeding amphibian*.
 Emily Rademacher & Kristen Gillespy. Project title: *Factors affecting detection probability of spotted salamanders (Ambystoma maculatum)*.
 Kaity Anstrom. Project title: *Testing the Utility of Environmental DNA (eDNA) for determining the presence of Bog Turtles (Glyptemys muhlenbergii)*.
 Cyrus Bahram & Emma Johnson. Project title: *Temporary translocation of semi-aquatic turtles at Robbins Park, Cornelius, NC*.
 *Christina Akins & Chase Ruder. Project title: *Factors affecting temperature variation and habitat use in free-ranging diamondback terrapins*.

PUBLICATIONS "*" indicates student author.

- 2017 Milanovich, J.R., Struecker, B.P.*, Warcholek, S.A.*, **Harden L.A.** Thermal environment and microhabitat of ornate box turtle hibernacula. *Wildlife Biology* 2017:

- wlb.00295. DOI: 10.2981/wlb.00295
- In press* **Harden, L.A.**, Williard, A.S. Osmoregulation of Diamondback Terrapins (*Malaclemys terrapin*). In W. M. Roosenburg and V. S. Kennedy, Ecology and Conservation of the Diamondback Terrapin. Johns Hopkins University Press, Baltimore, MD.
- 2015 Chase, F.W.*, Hardie, B.E.*, Kern, M.M., Pittman, S.E., **Harden, L.A.**, Dorcas, M.E. 2015. Evaluation of two individual identification techniques for spotted salamanders (*Ambystoma maculatum*). Herpetological Review 46, 192-196.
- 2015 **Harden, L.A.**, Midway, S.R., Williard, A.S. 2015. The blood biochemistry of overwintering diamondback terrapins (*Malaclemys terrapin*). Journal of Experimental Marine Biology and Ecology 466, 34-41.
- 2014 **Harden, L.A.**, Duernberger, K.A., Jones, T.T., Williard, A.S. Total body water and water turnover rates in the estuarine diamondback terrapin (*Malaclemys terrapin*) during the transition from dormancy to activity. 2014. Journal of Experimental Biology 217, 4406-4413.
- 2014 Strickland, J.C.*, Bahram, C.H.*, **Harden, L.A.**, Pittman, S.E., Kern, M.M., Dorcas, M.E. Life-history costs of reproductive behaviors in a wetland-breeding amphibian. Journal of Freshwater Ecology. DOI: 10.1080/02705060.2014.982725.
- 2014 Akins, C.*, Ruder, C.D.*, Price, S.J., **Harden, L.A.**, Gibbons, J.W., Dorcas, M.E. 2014. Factors affecting temperature variation and habitat use in free-ranging diamondback terrapins. Journal of Thermal Biology 44, 63-69.
- 2012 **Harden, L.A.** and Southwood Williard, A. 2012. Using spatial and behavioral data to evaluate the seasonal bycatch risk of diamondback terrapins (*Malaclemys terrapin*) in crab pots. Marine Ecology Progress Series 467, 207-217.
- 2011 Southwood Williard, A. and **Harden, L.A.** 2011. Seasonal changes in thermal environment and metabolic enzyme activity in the diamondback terrapin (*Malaclemys terrapin*). Comparative Biochemistry and Physiology A – Molecular and Integrative Physiology 158, 477-484.
- 2009 **Harden, L.A.**, S.E. Pittman, J.W. Gibbons, and M.E. Dorcas. 2009. Development of a rapid assessment technique to monitor diamondback terrapin (*Malaclemys terrapin*) populations using head-count surveys. Applied Herpetology 6, 237-245.
- 2009 **Harden, L.A.**, S.J. Price, and M.E. Dorcas. 2009. Terrestrial activity and habitat selection of Eastern mud turtles (*Kinosternon subrubrum*) in a fragmented landscape: Implications for habitat management of golf courses and other suburban environments. Copeia 1, 78-84.
- 2008 **Harden, L.A.** and M.E. Dorcas. 2008. Using thermal biology to investigate habitat use and activity of mud turtles (*Kinosternon subrubrum*) on a golf course, p. 321-323. In R. E. Jung and J. C. Mitchell (eds.), Urban Herpetology. Herpetological Conservation Vol. 3, Society for the Study of Amphibians and Reptiles. Salt Lake City, UT.
- 2007 **Harden, L.A.**, N.A. DiLuzio, M.E. Dorcas, and J.W. Gibbons. 2007. The spatial ecology and thermal ecology of diamondback terrapins (*Malaclemys terrapin*) in a South Carolina salt marsh. Journal of North Carolina Academy of Science 123, 154-162.

FUNDED PROPOSALS

- 2014 *Carolina Herp Atlas*. Riverbanks Conservation Support Fund. Riverbanks Zoo & Garden, Columbia South Carolina. (with co-PI M.E. Dorcas) \$5000.
- 2014 *Testing the Utility of Environmental DNA (eDNA) for determining the presence of*

- Bog Turtles (Glyptemys mhlenbergii)*. North Carolina Wildlife Resources Commission. (with co-PI M.E. Dorcas). \$9,981.
- 2012 *Seasonal variation in osmotic and metabolic status of diamondback terrapins*. North Carolina Herpetological Society Grant in Herpetology. \$360.
- 2012 *Assessment of diamondback terrapin presence and abundance in Bogue Sound, NC*. North Carolina Sea Grant. (with co-PIs A.S. Williard, W. Cluse, J. Wolfe). \$21,882.
- 2010 *Seasonal changes in physiology and behavior of the estuarine diamondback terrapin*. National Science Foundation Graduate Research Fellowship. Three-year graduate stipend.
- 2010 *Using postcard surveys to investigate potential interactions between blue crab fisheries and diamondback terrapins in coastal North Carolina*. North Carolina Sea Grant Minigrant. (with co-PI A. S. Williard). \$800.
- 2010 *Seasonal variation of behavior, ecology and physiology of diamondback terrapins (Malaclemys terrapin)*. Sigma Xi Grant-in-Aid of Research. \$996.
- 2010 *Seasonal variation of behavior, ecology and physiology of diamondback terrapins (Malaclemys terrapin) on Bald Head Island, North Carolina*. Diamondback Terrapin Working Group Research Grant. \$655.
- 2009 *Seasonal Changes of Diamondback Terrapin (Malaclemys terrapin) Movement and Physiology in a Southeastern North Carolina Salt Marsh*. North Carolina Academy of Science Robert R. Bryden Graduate Student Research Grant. \$1,000.
- 2006 *Terrestrial Activity of Eastern Mud Turtles (Kinosternon subrubrum) on Golf Courses: An Investigation of Habitat Selection*. North Carolina Herpetological Society Grant in Herpetology. \$600.
- 2006 *Terrestrial Activity of Eastern Mud Turtles (Kinosternon subrubrum) on Golf Courses: An Investigation of Habitat Selection*. Davidson College Biology Department. \$450.

AWARDS AND FELLOWSHIPS

- 2011 *Using a spatially-explicit predator-prey model to investigate bycatch risk of terrapins in crab pots*. International Sea Turtle Symposium Best Student Poster Presentation in the Threats category. \$500.
- 2010 *Seasonal changes in physiology and behavior of the estuarine diamondback terrapin*. National Science Foundation Graduate Research Fellowship. Three-year graduate stipend.
- 2010 Nominated by University of North Carolina Wilmington and top-25 finalist for the K. Patricia Cross Future Leaders Award.
- 2010 University of North Carolina Wilmington Graduate Student Association award for best graduate student poster. \$100.
- 2009 Judith C. Bryan Holden Beach Turtle Watch Fellowship in Marine Biology. \$5000.
- 2009 *Diamondback terrapin (Malaclemys terrapin) habitat utilization in a North Carolina salt marsh: assessment of overlap with blue crab fisheries*. American Society of Ichthyologists & Herpetologists Storer Award for best student herpetology poster. \$300.
- 2009-2012 University of North Carolina Wilmington travel grants (10). (UNCW BioGSA, UNCW Graduate School, UNCW GSA).
- 2007 Sigma Xi Celebration of Undergraduate Research Award. Davidson College.

SELECTED PROFESSIONAL ORAL PRESENTATIONS

- 2016 *A Look Underground at the Ornate Box Turtle: Hibernation Thermal Ecology and Microhabitat of Hibernacula in North-central Illinois*. Co-author Joseph R. Milanovich, Leigh Anne Harden, Stanislaw Warcholek, Brock P. Struecker. American Society for Ichthyologists and Herpetologists. New Orleans, LA.
- 2016 *Seasonal Blood Chemistry of Ornate Box Turtles in Restored Prairies of North-central Illinois*. Co-author Joseph R. Milanovich, Leigh Anne Harden, Jennifer Fernandez, Brock P. Struecker. The 2016 Box Turtle Conservation Workshop. Urbana, IL.
- 2014 *Seasonal variation in body fluid composition and dynamics of diamondback terrapins*. Joint Meeting of Ichthyologists and Herpetologists. Chattanooga, TN.
- 2013 *Variation in osmotic and metabolic status of overwintering diamondback terrapins (Malaclemys terrapin)*. Diamondback Terrapin Working Group. Seabrook, SC.
- 2013 *Variation in osmotic and metabolic status of overwintering diamondback terrapins (Malaclemys terrapin)*. Society for Integrative and Comparative Biology. San Francisco, CA.
- 2012 *Biology and conservation of diamondback terrapins in North Carolina: implications for crab fisheries interactions*. Annual North Carolina Sea Turtle Meeting. Swansboro, NC.
- 2012 *Seasonal ecology of diamondback terrapins in southeastern North Carolina: implications for interactions with the blue crab fishery*. Society for Integrative and Comparative Biology. Charleston, SC.
- 2011 *Using a spatially-explicit predator-prey model to investigate bycatch risk of terrapins in crab pots*. North Carolina Herpetological Society Fall Meeting. Raleigh, NC.
- 2010 *Seasonal changes in thermal environment and metabolic enzyme activity in the diamondback terrapin*. Diamondback Terrapin Working Group Workshop. Chauvin, LA.
- 2009 *Seasonal changes in diamondback terrapin (Malaclemys terrapin) habitat use and activity in southeastern North Carolina*. Southeast Diamondback Terrapin Working Group Workshop. Wilmington, NC.
- 2009 *Conservation of diamondback terrapins: What do we know, not know, and need to know?* Joint Meeting of Ichthyologists and Herpetologists. Portland, OR. (Presented on behalf of Dr. Michael Dorcas and Dr. Whit Gibbons).
- 2009 *Diamondback terrapin habitat utilization in NC salt marsh: Overlap with crab fisheries*. North Carolina Sea Grant Fisheries Forum. New Bern, NC.
- 2007 *Terrestrial activity and habitat selection of eastern mud turtles (Kinosternon subrubrum) inhabiting golf course ponds*. Joint Meeting of Ichthyologists and Herpetologists. St. Louis, MO.
- 2006 *Keeping on Par with Wildlife: Investigations of Turtle Populations Inhabiting Golf Courses*. North Carolina Herpetological Society Fall Meeting. Raleigh, NC.

SELECTED PROFESSIONAL POSTER PRESENTATIONS "*" indicates student-authored poster.

- 2017 **Home Ranges of Captive-Reared, Recently-Released Juvenile Blanding's Turtles (Emydoidea blandingii)*. Annual Meeting of the Society for Freshwater Science, Raleigh, NC.
- 2017 **Examining the Ontogenetic Physiological Health of Captive-Reared and Released Juvenile Blanding's Turtles (Emydoidea blandingii)*. Annual Meeting of the Society for Freshwater Science, Raleigh, NC.
- 2017 **Hematological health and immune response of captive-reared, re-released juvenile*

- 2016 *Blanding's turtles (Emydoidea blandingii)*. Associated Colleges of the Chicago Area (ACCA) Student Scholarship Symposium, Benedictine University, Lisle, IL.
- 2016 **Seasonal Blood Chemistry of Ornate Box Turtles in Restored Prairies of North-central Illinois*. Co-authors: American Society for Ichthyologists and Herpetologists. New Orleans, LA.
- 2016 **Do Variations in Behavior & Environmental Temperatures Affect Blood Chemistry of overwintering Diamondback Terrapins?* Undergraduate Research, Scholarship, and Arts (URSA) symposium. Benedictine University, Lisle, IL.
- 2014 **Temporary Translocation of Semi-aquatic Turtles at Robbins Park, Cornelius, North Carolina*. Davidson College Summer Research Symposium, Davidson, NC.
- 2014 **Developing an effective eDNA field protocol for the detection of Bog Turtles (Glyptemys muhlenbergii)*. Davidson College Summer Research Symposium. Davidson, NC.
- 2014 **Evaluation of Two Individual Identification Techniques of Ambystoma maculatum*. Association of Southeastern Biologists. Spartanburg, SC.
- 2014 **Detectability of Spotted Salamanders (Ambystoma maculatum) in Aquatic Traps*. Association of Southeastern Biologists. Spartanburg, SC.
- 2014 **Influence of Sex and Migration Behavior on Reproductive Costs of Spotted Salamanders (Ambystoma maculatum)*. Association of Southeastern Biologists. Spartanburg, SC.
- 2013 *Variation in osmotic and metabolic status of overwintering diamondback terrapins (Malaclemys terrapin)*. International Sea Turtle Symposium. Baltimore, MD.
- 2011 *Using a spatially-explicit predator-prey model to investigate bycatch risk of terrapins in crab pots*. International Sea Turtle Symposium. San Diego, CA.
- 2010 *Seasonal variation in blood biochemistry of diamondback terrapins (Malaclemys terrapin) in southeastern North Carolina*. Society for Integrative and Comparative Biology. Seattle, WA.
- 2009 *Habitat utilization in a North Carolina salt marsh: Assessment of overlap with blue crab fisheries*. Joint Meeting of Ichthyologists and Herpetologists. Portland, OR.
- 2007 *Development of a rapid assessment technique to monitor diamondback terrapin (Malaclemys terrapin) populations using head-count surveys*. The Fourth Diamondback Terrapin Working Group Symposium. Millersville, MD.
- 2007 *Spatial and thermal ecology of diamondback terrapins (Malaclemys terrapin) in a South Carolina salt marsh*. Joint Meeting of Ichthyologists and Herpetologists. St. Louis, MO.
- 2007 *Terrestrial activity and habitat selection of golf course pond mud turtles (Kinosternon subrubrum)*. North Carolina Partners in Amphibian and Reptile Conservation. Greensboro, NC.
- 2007 *The Davidson College Herpetology Laboratory's Outreach Program: Using Amphibians and Reptiles as Model Species for Environmental Education*. Association of Southeastern Biologists. Columbia, SC.

INVITED GUEST LECTURES AT ACADEMIC INSTITUTIONS

- 2017 *The Functional Ecology of Endangered Turtles*. Science and Sociability Seminar, Benedictine University.
- 2016 *Behavioral and physiological ecology of reptiles*. Associated Colleges of the Chicago

- Area (ACCA) Student Seminar Fall 2016, Benedictine University.
- 2015 *Biology and conservation of diamondback terrapins: implications for crab fisheries interactions*. BIO 370 Ecology course guest lecture, Coastal Carolina University.
- 2015 *Biology and conservation of turtles*. Guest skype lecture to post-graduate and graduate students of Zoology, Microbiology and Biochemistry at Auxilium College, an all-Women's College in the Vellore District of India. Department Head & Associate Professor: Dr. Mary Josephine Rani.
- 2014 *The seasonal ecology and physiology of diamondback terrapins in North Carolina*. Davidson College Biology Departmental Seminar, Davidson, NC.
- 2013 *Sensory systems of herpetofauna*. BIO 454 Herpetology course guest lecture, University of North Carolina Wilmington, Wilmington, NC.
- 2013 *Herpetological conservation case study: diamondback terrapins*. BIO 454 Herpetology course guest lecture, University of North Carolina Wilmington, Wilmington, NC.
- 2012 *Osmoregulation in aquatic habitats*. BIO 345 Animal Physiology course guest lecture, University of North Carolina Wilmington, Wilmington, NC.
- 2010 & 2012 *Biology and conservation of diamondback terrapins (Malaclemys terrapin)*. BIO 361 Amphibian and Reptile Conservation course guest speaker, Davidson College, Davidson NC.
- 2010 *Biology and Conservation of diamondback terrapins (Malaclemys terrapin)*. BIO 495 Sea Turtle Biology and Conservation Senior Seminar guest speaker, University of North Carolina Wilmington, Wilmington, NC.

ADDITIONAL TEACHING ACTIVITIES AND INVITED PUBLIC SEMINARS

- 2017 *Career Booth at the Science Career in Search of Women Conference*. Argonne National Laboratory, Argonne, IL.
- 2016 Women in Science Career Presentation to the GEMS club at Lane Tech College Prep, Chicago IL.
- 2015 Completion of Loyola University Chicago, Faculty Center for Ignatian Pedagogy, Online Teaching Course, Summer 2015.
- 2014 *Diamonds in the Rough: Diamondback Terrapins in the Salt Marshes of North Carolina*. Hawk Talk. North Carolina Wildlife Club. Charlotte, NC.
- 2013 *A field guide to research*. Bald Head Island Conservancy Intern Research Seminar guest speaker, Bald Head Island, NC.
- 2009, 2010 Seasonal changes in diamondback terrapin (*Malaclemys terrapin*) habitat use and activity in southeastern North Carolina. Bald Head Island Conservancy Discovery Lecture Series guest speaker, Bald Head Island, NC.
- 2009-2012 Summer marine biology educator, University of North Carolina Wilmington Marine Quest Summer Academic Enrichment Program, for 12-16 year old students interested in marine biology research and careers.
- 2010 Summer camp instructor for camp BONES (Brigade of Nurse Exploring Seahawks), a nursing and health academy for underserved and underrepresented middle and high school students from New Hanover County, NC.
- 2009 *Researching Diamondback Terrapins in North Carolina Salt Marshes*. Wrightsville Beach Elementary School in collaboration with Fort Fisher NC Aquarium, Wilmington, NC.
- 2007-2008 Environmental Educator, University of Georgia Jekyll Island 4 H Center. Supervisor:

Melanie Biersmith.

PROFESSIONAL SCHOLARLY AND SERVICE ACTIVITIES

- BenU member: Jurica-Suchy Natural History Museum Advisory Board Committee Member (March 2017 – present), The General Education Curriculum Committee (GECC November 2016 – present). People for Animal Welfare (PAWs) Faculty Advisor (September 2016 – present)
- Peer Reviewer: Journal of Natural History, Conservation Physiology, Animal Conservation, Northeastern Naturalist, Diversity and Distributions, Wetlands, Copeia, Endangered Species Research, Southwestern Naturalist, Journal of Herpetology, Journal of Wildlife Management, Journal of Fish and Wildlife, Herpetological Conservation and Biology, Chelonian Conservation and Biology
- Grant Reviewer: Diamondback Terrapin Working Group Research Grant proposals 2009, 2011-12. 2011 Northeast Resource Conservation Needs Proposal Reviewer: Turtle Team. 2013 Hudson River Foundation For Science and Environmental Research Proposal reviewer
- Organizer: Southeastern Diamondback Terrapin Working Group Symposium, Wilmington, NC. 2009. Cooperative meeting with agencies: Sapelo Island GA Coastal Training Program and National Estuarine Research Reserve (NERR), SC Division of Natural Resources, NC Coastal Reserve and NERR, North Inlet-Winyah Bay NERR and ACE Basin SC NERR
- Society Member: Southeastern Diamondback Terrapin Working Group Chair (March 2008 – 2013), Diamondback Terrapin Working Group, Society of Integrative and Comparative Biology, American Society of Ichthyologists and Herpetologists, Association of Southeastern Biologists, Sigma Xi, North Carolina Herpetological Society, Partners in Amphibian and Reptile Conservation, Natural Resources Conservation Service Earth Team for North Carolina, Association for Zoos and Aquariums.

RESEARCH FEATURED IN

- 2017 *The Daily Herald* “Blanding's turtles get a boost in DuPage”, *NCTV17* “Forest Preserve Releases Endangered Turtles”, and *ABC7 Chicago*.
- 2017 *BenU Voices Spring 2017* and *Ben.edu News Room* (Benedictine University) “Professor working to save endangered Northern Illinois Turtle”
- 2013 *Star News*, (Wilmington NC) “Diamondback terrapins subject of UNCW student’s research”
- 2013 *Coastal Review Online* (NC Coastal Federation) “Looking for Answers to Help Terrapins”
- 2009 *Coastwatch* (NC Sea Grant) “Mapping the Overlap: Terrapins & Crab Pots in the Lower Cape Fear Region”

ADDITIONAL PROFESSIONAL EXPERIENCE

- 2010-2013 **National Science Foundation Graduate Research Fellow/Research Assistant**, University of North Carolina Wilmington

- 2008 Adviser: Dr. Amanda Southwood Williard
Research Technician, University of North Carolina at Wilmington.
Adviser: Dr. Amanda Southwood Williard
- 2007-2008 **Environmental Educator**, University of Georgia Jekyll Island 4 H Center.
Supervisor: Melanie Biersmith.
- 2007 **Research Technician**, Davidson College Herpetology Laboratory
Adviser: Dr. Michael E. Dorcas
- 2006-2007 **National Science Foundation Research Experience for Undergraduates Fellow**,
Davidson College Herpetology Laboratory
Adviser: Dr. Michael E. Dorcas
- 2006-2007 **Ecosystem Enhancement Program Five-Mile Branch Stream Restoration Project
Student Coordinator and Research Technician**, Davidson College Herpetology
Laboratory
Advisers: Dr. Michael E. Dorcas, Dr. Steve Price.