

Curriculum Vitae
Laura Eidietis, M.A.T., Ph.D.

Personal

Title: Lecturer IV
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Education

1999-2005 University of Michigan (Ph.D., Biology)
 Dissertation title: *A biomechanical description of the anuran tadpole startle response and some implications of anatomical diversity*
 1997-1999 University of Portland (M.A. Teaching)
 Thesis title: *Encouraging confident, assertive behavior in girls: a study in the mathematics classroom*
 1993-1997 University of Notre Dame (B.S. Biology)

Academic Appointments

9/2013-current University of Michigan, Ann Arbor (Lecturer IV, Teaching Faculty)
 9/2009-2013 University of Michigan, Ann Arbor (Lecturer III, Teaching Faculty)
 2007-2009 Hunter College, City University of New York (Assistant Professor)
 2005-2007 Eastern Michigan University (Assistant Professor)

Other Relevant Employment

2007-2012 *Science Education Research Consultant* (self-employed)
 2003-2005 *Graduate Student Mentor* (Program in Biology, Univ. of Michigan)
 training seminar for graduate student instructors
 2000-2002 & 2004 *Graduate Student Instructor* (Dept. of Biology, Program in Biology, &
 Dept. of Ecology & Evolutionary Biology, Univ. of Michigan)
 2000-2005 *Grader* (Program in Biology, Univ. of Michigan): physiology exams
 1997-1999 *Secondary school teacher* (Resurrection Catholic High School,
 Pascagoula, MS) Taught 7th grade mathematics, algebra, physics (11th and
 12th grade), biology (9th and 10th grade), human anatomy and physiology
 (11th and 12th grade), marine ecology (9th-12th grade)

Post-Secondary Classes TaughtScience

2011-2013 Quantitative Reasoning in Biological Sciences (Biology 106, Univ. of
 Michigan) *Co-Instructor*
 Current Environmental Physiology of Animals (Biology 256, Univ. of Michigan)
Instructor
 Current Introduction to Animal Diversity (Biology 108, Univ. of Michigan)
Instructor
 Current Introductory Biology, Ecology & Evolution (Biology 171, Univ. of
 Michigan) *Coordinator and Honors Instructor*

2009, spring	<u>Physical Science for Elementary Teachers</u> (CEDC 776, Hunter College) <i>Professor: elementary math/science specialist graduate students</i>
2008, fall	<u>Planet Earth: Life Science, Environmental and Earth Science for Elementary Teachers</u> (CEDC 776, Hunter College) <i>Professor: elementary math/science specialist graduate students</i>
2006-2007	<u>Life Science for Elementary Teachers</u> (BIOL 303, Eastern Michigan Univ.) <i>Professor: Coordinated instructors and students in 6-9 sections (150-250 students); taught laboratory/discussion sections; hybrid format, including both lab/lecture and a web (WebCT platform) component and both science teaching methods and life science content</i>
2007, winter	<u>The Nature of Science</u> (BIOL 406, Eastern Michigan Univ.) <i>Professor: secondary science education students</i>
2006 (fall)	<u>Graduate Student Seminar</u> (BIOL 593, Eastern Michigan Univ.) <i>Professor: weekly discussion on biological research; coordinated guest lecturers for the biology department</i>
2004, winter	<u>Evolution</u> (Dept. of Ecol. & Evol. Biol., Univ. of Michigan) <i>Graduate Student Instructor: Taught discussion sections</i>
2002, fall	<u>Biology for non-majors</u> (Program in Biol., Univ. of Michigan) <i>Graduate student instructor: Taught discussion sections</i>
2000, winter & fall	<u>Physiology laboratory</u> (Dept. of Biol., Univ. of Michigan) <i>Graduate Student Instructor: Taught laboratory sessions</i>
<u>Science Education</u>	
2009-2013, fall	<u>Supervised Teaching for Graduate Students and Undergraduate Teaching Assistants</u> (EEB/MCDB 801, Program in Biology, University of Michigan) <i>Instructor: Graduate Student Instructor and Undergraduate Teaching Assistant training</i>
2009, spring	<u>Development of Mathematical/Scientific Concepts in Children</u> (CEDC 744, Hunter College) <i>Professor: elementary math/science specialist graduate students</i>
2007-2008	<u>Teaching Science in the Elementary School</u> (CEDC 703, Hunter College) <i>Professor: elementary education graduate students</i>
2007-2008	<u>Teaching Science in Elementary School</u> (QSTA 414.80, Hunter College) <i>Professor: undergraduate elementary education students</i>
2005-2006	<u>Methods for Teaching Secondary Biology</u> (BIOL 403, Eastern Michigan University) <i>Professor: Taught science methods to biology teaching majors</i>

Professional service

University of Michigan

Current	Dept. of Ecology and Evolutionary Biology: Social Committee Chair
2009-current	Dept. of Ecology and Evolutionary Biology: Biology 171 Course Coordinator
2010	Dept. of Ecology and Evolutionary Biology: undergraduate advisor
2004-2005	Dept. of Ecology and Evolutionary Biology, President: Graduate Researchers in Ecology and Evolutionary Biology
2001-2003	Dept. of Ecology and Evolutionary Biology, Curriculum Committee
2001-2003	Program in Biology, Curriculum Committee

Hunter College

- 2008-2009 College Undergraduate Course of Studies Senate Subcommittee
 2008-2009 Professional Staff Congress-City University of New York Grants (Education), panel member & proposal reviewer
 2008-2009 Dept. of Curriculum & Teaching, Director of Mathematics Center search committee
 2008-2009 Beyond the Campus Hunter College & Conservation Society Partnership liaison
 2008 City University of New York, Teacher Academy Field Guide Revision Committee
 2008 College Teacher Academy Advisory meetings
 2008 Dept. of Curriculum & Teaching, Peer Observation Subcommittee
 2007-2008 Dept. of Curriculum & Teaching Science Education Search Committee

Eastern Michigan University

- 2006-2007 Chair of Biology Dept. Scholarships & Awards Committee
 2006-2007 Biology Dept. Library Liaison
 2006-2007 Biology Dept. Assessment Committee
 2005-2007 College of Arts & Science Methods Faculty Group
 2006-2007 Coordinated Biology Dept. "Take your Child to Work Day" activities

Other

- 2007 Region 9 Michigan Science Olympiad Event Sponsor
 2006 Coordinated Life Science Events at the Region 9 Michigan Science Olympiad

Grants and Awards

- 2008 George N. Shuster Faculty Fellowship. "Context-specific online learning materials: exploring relationships among teachers' use, teachers' attitudes, and proximity to context" (\$2433), *Hunter College*.
 2007 Environmental Literacy Grant, Co-PI, "Sailing Elementary Teachers toward Ocean Literacy Using Familiar Water Resources", (\$461,534) *National Oceanic and Atmospheric Association*
 2005 Provost's Research Support Award for New Faculty (\$5000), *Eastern Michigan University*
 2005 Spring-Summer Award for Research (20% of base salary), *EMU*
 2003 Block grant award (\$1218), *University of Michigan, Department of Ecology & Evolutionary Biology*.
 2002 Block grant award (\$1250), *Univ. of Michigan, Dept. of Ecol. & Evol. Biol.*
 2001 Peter Olaus Okkelberg Award (\$2000), *Univ. of Michigan, Dept. of Biology*
 2000 Block grant award (\$500), *Univ. of Michigan, Dept. of Biology*
 2002-2005 Regents Fellowship, *Univ. of Michigan* (stipend and tuition for 3 years)
 1999-2002 Graduate Research Fellowship, *National Science Foundation* (stipend and tuition for 3 years)

Selected Professional Development

- 2014 Introductory sessions on use of Canvas, University of Michigan
 2011 Biology Education Journal Club, Program in Biology
 2010 Graduate Student Orientation (attended), CRLT, University of Michigan
 2010 Enriching Scholarship Conference (attended), Teaching and Technology

- 2006 Collaborative, University of Michigan
Eastern Mich. Univ., Faculty Development Seminar in the Scholarship of Teaching and Learning
- 2006 Eastern Mich. Univ., Academic Service-Learning Fellow
- 2004 Univ. of Mich., Preparing Future Faculty Seminar

Certifications

- Current Project WET and Project WILD Training Facilitator
- 1997-2002 Licensed to teach 7th-12th grade Biology, State of Mississippi
- 1998-2001 Licensed to teach 7th-12th grade Physics, State of Mississippi

Honors

- (1997) Phi Beta Kappa
- (1997) Senior Outstanding Biology Student, University of Notre Dame

Relevant Experience

Mentoring Students

- Current (Program in Biology, University of Michigan) Mentor Graduate Student Instructors and Graduate Student Mentors in the Program in Biology; Supervise and Mentor Graduate Student Instructors and Undergraduate Teaching Assistants in Introduction to Ecology & Evolution (Biology 171)
- 2007-2009 Hunter College, CUNY
- Student Teaching & Practicum Teaching: supervised secondary science student teachers and practicum teachers in New York City schools
 - Graduate elementary education students: mentored interns studying ocean literacy in elementary science education
- 2005-2007 Eastern Michigan University
- Post-baccalaureate elementary education student: studied crayfish escape behavior & invertebrate species diversity in wetlands, poster presentations
 - Biology undergraduate: studied lamprey behavior, poster presentations & co-authored publication
 - Guest education student: studied crayfish growth rates, presented to laboratory group
 - Post-baccalaureate education student: meta-analysis of education journals, presented to laboratory group
 - Biology graduate student: teacher-training project using invertebrates to support inquiry, co-authored publication
- 1999-2005 University of Michigan
- Biology Undergraduate: research assistant, co-authored publication
 - School of Natural Resources undergraduate: studied fish stability, co-presented at international meeting, co-authored publication

Biology Research Projects

- 2006-2011 *High-speed Video Analysis of Unique Pacific Lamprey Climbing Behavior*: collaboration with Dr. Ulrich Reinhardt (EMU) and Dr. Mary Moser (NOAA)
- 2006-2010 *Comparing changes in invertebrate biodiversity at sites in Kansas and Michigan using surveys*: collaboration with Dr. Elizabeth Davis (Columbia College,

- Chicago)
- 2000-2005 *Tadpole escape response performance* (Dissertation): investigated the functional significance of tadpole morphology for escape response performance, quantified morphology, created biomechanical models; skills utilized included geometric morphometric analysis of shape, modeling in Matlab, statistical analyses, computational kinematic analysis of high-speed video recording of performance, and husbandry of eggs and tadpoles
- 1999-2002 *Fish rolling stability* (supervised by Dr. Paul Webb)
- 1996-1997 *Herbivory in littoral habitats* (undergraduate thesis, supervised by Dr. David Lodge, Dept. of Biol., Univ. of Notre Dame)
- 1995, summer *Gull mate greeting behavior* (supervised by Dr. James Hayward, Dept. of Biol., Andrews Univ.)

Field Station Experiences

- 2006 Kresge Environmental Research Center at Fish Lake, EMU, Lapeer, MI & Parsons Center for the Arts and Sciences, EMU, Traverse City, MI
Invertebrate biodiversity of Michigan lakes
- 2001 Hopkins Marine Station, Stanford University, Pacific Grove, CA
Biomechanics and physiology of intertidal organisms, summer course
- 2000 Friday Harbor Laboratories, University of Washington, Friday Harbor, WA
Physical biology, summer course
- 1996 University of Notre Dame Environmental Research Center, Land O' Lakes, WI
Practicum in aquatic ecology, summer course and research project

Published Manuscripts

Biology

- Reinhardt, U.G., Eidietis, L., Friedl, S.E., Moser, M.L 2008. Pacific lamprey climbing behavior. *Can. J. of Zool.* 86(11): 1264-1272.
- Eidietis, L. 2006. The tactile-stimulated startle response of tadpoles: acceleration performance and its relationship to the anatomy of wood frog (*Rana sylvatica*), bullfrog (*Rana catesbeiana*), and American toad (*Bufo americanus*) tadpoles. *J. of Exp.Zool.* 305A:348-362.
- Eidietis, L. 2005. Size-related performance variation in the wood frog (*Rana sylvatica*) tadpole tactile-stimulated startle response. *Can.J.of Zool.* 83:1117-1127.
- Johnson, K. E. & Eidietis, L. 2005. Tadpole body zones differ with regard to strike frequencies and kill rates by dragonfly naiads. *Copeia* 2005 (4): 908-912.
- Eidietis, L., Forrester, T.L., Webb, P.W. 2002. Relative abilities to correct rolling disturbances of three morphologically different fish. *Can. J. Zool.* 80:2156-2163.

Education

- Eidietis, L., Jewkes, A. 2011. Making curriculum decisions in K-8 science: The relationship between teachers' dispositions and enacted curriculum content. *Journal of Geoscience Education.*59: 242-250.
- Eidietis, L., LaPorte, E., Rutherford, S. 2010. A comparative analysis of online learning materials aimed toward integrating Great Lakes science into the K-8 classroom. *Journal of Geoscience Education.* 55(3): 188-196

- Coffman, M., Eidietis, L., Gardiner, L., Hatheway, B., Henderson, S., Rutherford, S. 2009. Need an upgrade from “Once Upon a Time”? Try this storybook. *Teaching Science*. 55(4): 45-49.
- Eidietis, L., Rutherford, S. 2009. Sailing toward understanding surface currents: a science and geography integration activity for upper-elementary children. *Science Activities*. 4(2): 1-10.
- Eidietis, L., Gray, S., Riggs, L., West, B. & Coffman, M. 2007. Crazy Classroom Critters: Your one-stop spot for using invertebrates to support inquiry. *Science & Children*. 45(1): 37-41.

Published Book Sections

- Eidietis, L. 2008. Between Mississippi and South Bend. p. 17-18 in Budzichowski, L. et al. (eds.) *The spirit of ACE: celebrating 15 years*. Notre Dame, IN: Alliance for Catholic Education Press.
- Storm, P., & Eidietis, L. 2007. Evaluation of Web Resources by Preservice Teachers. Ch. 6 in Bernstein, J. L. (ed.) *Toward Transformation: EMU Faculty Journey into the Scholarship of Teaching and Learning*. Ypsilanti, MI: Bruce K. Nelson Faculty Development Center.

Laboratory Manual

- Liggit, P., Coffman, M.A., & Eidietis, L. 2006-2007. *Life Science for Elementary Teachers*. Hayden-McNeil, Ann Arbor, MI.

Online Publications

- Eidietis, L., Rutherford, S., Coffman, M.A., Curtis, M. 2008. Going with the Flow. In *Ducks in the Flow: Resources about Surface Ocean Currents for the Upper Elementary Classroom*. Eastern Michigan University and the University Corporation for Atmospheric Research. Online at http://www.windows.ucar.edu/teacher_resources/ocean_education/GoingWithTheFlow.pdf.
- Eidietis, L., Rutherford, S., Coffman, M.A., Curtis, M. 2008. The Ocean in Motion. In *Ducks in the Flow: Resources about Surface Ocean Currents for the Upper Elementary Classroom*. Eastern Michigan University and the University Corporation for Atmospheric Research. Online at http://www.windows.ucar.edu/teacher_resources/ocean_education/TheOceanInMotion.pdf.
- Eidietis, L., Rutherford, S., Coffman, M.A., Curtis, M. 2008. Duck, Duck, DATA! In *Ducks in the Flow: Resources about Surface Ocean Currents for the Upper Elementary Classroom*. Eastern Michigan University and the University Corporation for Atmospheric Research. Online at http://www.windows.ucar.edu/teacher_resources/ocean_education/DuckDuckData.pdf.

Presentations

Biology

- Reinhardt, U.G., Eidietis, L.E., Friedl, S.E. & Moser, M.L. (2008, July 28-August 1). *High-speed video analysis of a unique Pacific lamprey climbing behavior*. Poster presented at the 8th International Congress on the Biology of Fish. Portland, OR.
- Davis, E.C., Eidietis, L. & Benjey, C.R. (2008, June 29-July 3). Comparing changes in Mollusk biodiversity in sites in Kansas and Michigan. Poster presented at the 74th Annual Meeting of the American Malacological Society. Carbondale, IL.
- Friedl, S., Eidietis, L, Moser, M., & Reinhardt, U. (2007, August 30- September 6). *High-*

- speed Video Analysis of a Unique Pacific Lamprey Climbing Behavior*. Poster presented at the American Fisheries Society 137th Annual Meeting. San Francisco, CA.
- Davis, E.C., Eidietis, L., & Benjey, C. B. (2007, January 3-7). *Comparing changes in invertebrate biodiversity at sites in Kansas and Michigan*. Poster presented at the Society for Integrative and Comparative Biology Annual Meeting. Phoenix, AZ.
- Friedl, S.E., Reinhardt, U., Eidietis, L., & Moser, M. (2007, February 27-March 2). *High-speed video analysis of a unique Pacific Lamprey Climbing Behavior*. Poster presented at the Oregon Chapter of the American Fisheries Society 43rd Annual Meeting. Eugene, OR.
- Eidietis, L. 2005. Predicting performance differences from morphology: a comparison of the fast-starts of three anuran tadpoles. *Integrative and Comparative Biology* 44: 548.
- Eidietis, L. 2003. Scaling of escape response performance over ontogeny for *Rana sylvatica* tadpoles. *Integrative and Comparative Biology* 43: 906.
- Eidietis, L. 2002. The effect of wood frog tadpole (*Rana sylvatica*) plastic morphology on predator (dragonfly nymph, *Anax junius*) strike behavior. *Integrative and comparative biology*. 42: 1224-1225.
- Eidietis, L. 2001. Escape response of *Rana sylvatica* and *Rana clamitans* tadpoles. *Am. Zool.* 41:1641.
- Eidietis, L., Webb, P.W., Forrester, T. L. 2000. The abilities of two morphologically different fish to counteract rolling disturbances. *Am. Zool.* 40: 1008.

Science Education

- Gardiner, L., Hatheway, B., Henderson, S., Eidietis, L., & Rutherford, S. (2008, March 27-30). *Make a big splash: ocean literacy resources for the elementary classroom*. Workshop presented at the National Science Teachers Association National Conference. Boston, MA.
- Eidietis, L. & Coffman, M. (2007, January 3-7). *Crazy Classroom Critters: using scientific inquiry in teacher education*. Poster presented at the Society for Integrative and Comparative Biology Annual Meeting. Phoenix, AZ.
- Eidietis, L. and Paula Storm. (2006, April 6). *Becoming Skilled Information Seekers through the Transfer of Internet Skills*. Workshop presented at the Eastern Michigan University Faculty Showcase.
- Olsen, L. J.; Osgood, M. P.; Ammerlaan, M.; Johnson, S.; Yu, L.; Eidietis, L. 2002. Calibrated Peer Review: Implementation of a computer-based writing-to-learn tool in a large lecture-based introductory biology class. *Plant Biology* 2002: 36.