

Lynn Marie Diener

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Education

September 1999 - August 2005: Ph.D. Molecular and Environmental Toxicology, University of Wisconsin-Madison.

August 1995 - May 1999: B.A. Environmental Science, Bard College, Annandale-on-Hudson, NY

September 1991 - May 1995: East Valley High School, Spokane, WA

Research Experience

December 2005 – May 2007: Edgewood College. Faculty Advisor for undergraduate and high school student research. Study the impact of oxidative stress on bacterial cells.

December 1999 - August 2005: University of Wisconsin. Research Assistant. I focused on metals, their interactions with soil organic components and biological organisms living in the soil, specifically microorganisms.

August 1998 - May 1999: Bard College senior project. I studied the volatilization of PCB's in different conditions/environments.

Summer 1998: Research Experience for Undergraduates, University of Virginia, Blandy Experimental Farm. I studied kin oviposition in *Gargaphia solani* (lace bug).

Fall 1997: Final project for Semester in Environmental Science, Woods Hole, MA. Ecosystems Center. I studied biodiversity of plants in a prairie that had been fertilized versus one that had not been fertilized at a sewage treatment plant.

Teaching Experience

August 2008- present: Assistant Professor of Biology. Mount Mary College. Biology 211 (Anatomy), Biology 212 (Human Physiology), Biology 457 (Ecology), Biology 214 (Zoology), Biology 220 (Contemporary Environmental Issues), Symbolics 110 (Leadership for Social Justice). Responsible for developing and presenting instructional material and laboratories to students. Also responsible for all grading, holding regular office hours. Also responsible for advising undergraduate biology majors, and participation in college and departmental committees.

- *2 years of teaching experience*

August 2005 – May 2008: Adjunct Biology Instructor. Edgewood College. Biology 151 (Fall 2005, 2006, 2007) and 152 (Spring 2006), Introductory Biology sequence, Anatomy and Physiology Lab Biology 211 (Spring 2007), Cell and Molecular Biology 402 (Spring 2008). Responsible for developing and presenting instructional material and laboratories to students, freshmen through post baccalaureate, majors and non-majors. Four sections of Introductory Biology taught. Also responsible for all grading, holding regular office hours and facilitating a weekly study group for Biology 151 and 152.

- *3 years of teaching experience*

September 2007-December 2007: Instructor, Online course, Learning about the Chemical Education Digital Library. Responsible for developing materials, grading, and answering emails for students in the class.

January 2006 – May 2006: Faculty Advisor, Human Issues 479. Edgewood College. Mentoring a student driven project that looked at the impact of science on society. The project explored the ethics of stem cell research.

January 2005 – May 2005: Teaching Assistant, Biology Core 304, Cell Biology Laboratory, UW, Madison. Responsible for leading laboratories, preparing for and leading discussion sections, grading assignments and lab reports.

September 2004 - December 2004: Guest lecturer, Soil Science 301, General Soil Science. Responsible for delivering lectures.

June 2004-2008: Lecturer for PEOPLE (Pre-College Enrichment Opportunity Program for Learning Excellence). Developed and presented an inquiry based, hands on curricula in Ecotoxicology. In 2004, 2006, 2007, 2008 a one week curricula was developed and in 2005 a three week curricula was developed.

September 2002 - December 2002: Guest lecturer, Soil Science 230, Soil: Ecosystem and Resource. Responsible for delivering lectures.

September 2001 - December 2001: Teaching Assistant, Soil Science 230, Soil: Ecosystem and Resource. Developed and presented two lecture series, consisting of lectures and case study discussions.

September 2001 - December 2001: Teaching Assistant, Molecular and Environmental Toxicology 630, Ecotoxicology: Toxicant Effects on Ecosystems. Lead discussion and review sessions. Held informal office hours for one on one assistance.

January 1998 - May 1999: Teaching and Lab Assistant, Ecosystems Ecology and Physical Geography at Bard College. Tested, set up and conducted labs for these courses.

September 1994 - April 1995: Tutor for East Valley High School student. Responsible for tutoring her in all of her classes, teaching her study skills and time management.

Science Education Outreach and Volunteer Efforts

May 2010 – August 2010: Visiting Faculty at the University of Wisconsin-Madison. Developed and presented workshops, classes and web seminars about the Chemical Education Digital Library (ChemEd DL). Developed worksheets and materials for use with the free materials found at the ChemEd DL.

May 2009-August 2009: Visiting Faculty at the University of Wisconsin-Madison. Developed and presented workshops, classes and web seminars about the Chemical Education Digital Library (ChemEd DL). Developed worksheets and materials for use with the free materials found at the ChemEd DL.

April 2010: Presenter. Sennet Middle School Family Science Night. Presented a hands on science activity for middle school students and their parents. 2 sessions were presented.

July 2005 – August 2008: Outreach Coordinator. Develop and present hands on, inquiry based Science activities to students age 7-12 who attend the Boys and Girls Club. Responsible for recruiting and managing undergraduate and faculty volunteers. Also developed and presented six workshops for after school programs interested in providing science programming.

January 2007 – August 2008: Outreach Coordinator. Developed and presented workshops, classes and web seminars about the Chemical Education Digital Library.

November 2003, 2004, 2006, 2007 and 2009: Expanding Your Horizons. Developed and presented hands on activities for middle school age girls.

May 2006, 2007, 2008: Edgewood Family Science Night. Developed and presented science activity for the public.

February 2006 and 2007: Science Olympiad Event Supervisor. Responsible for developing, running and grading activity on insects in 2006 and Engineering in 2007.

December 2001 – August 2005: Environmental Toxicology Student Outreach. Developed and presented outreach programs to teach high school through elementary students about Environmental Toxicology. Presentations: In the classroom, Expanding your Horizons, Family Science Nights, Science Expeditions.

- Mad City Mill. Aimed at high school students.
- Six legged Toxicologist. Aimed at elementary through middle school students.
- Daphnia as a biomonitor. Aimed at middle school students.

September 2003: Synchrotron Radiation Center Open House, Volunteer. Presented my research in an accessible manner to individuals ranging in age from elementary school students to adults.

March 2002 and 2003: Lilith Computer Fair Volunteer. Introduced middle school girls to computer technology.

Publications

Diener, L.M. News from Online: Plants and Photosynthesis. 2010. 87(2)130-132. Journal of Chemical Education.

Diener, L.M. News From Online: The Chemistry of Respiration. 2010. 87(1) 5-7. Journal of Chemical Education.

Diener, L.M. News From Online: The Periodic Table of the Elements. 2009. 86(10) p. 1163-1166. Journal of Chemical Education.

Diener, L.M. Mercurial about Mercury. 2009. 86(10) p. 1139. Journal of Chemical Education.

Diener, L.M., B.P. McCall, J.A. Gimm. (2009) The Secret of Smart Paper. Journal of Chemical Education. 86(4) p. 464A.

Diener, L.M. (2009) News from online: Stratospheric Chemistry. Journal of Chemical Education. 86(2) p 153-155.

Diener, L.M. and J. Acker. (2009) A Cross-Disciplinary Collaboration Between Science and Art. Journal of Chemical Education. 86(2) p 156-157.

Diener, L.M. No Apple Fool: Biochemistry and Taste. (2008) Journal of Chemical Education. 85(3) p. 345

Diener, L.M. My dog is broken! A case study in cell signaling. (2007) National Center for Case Study Teaching in Science.
<http://ublib.buffalo.edu/libraries/projects/cases/case.html>

Yoon, Soh-joung, L. M. Diener, P.R. Bloom, E.A. Nater, W.F. Bleam. (2005) X-ray absorption studies of CH_3Hg^+ -binding sites in humic substances. *Geochimica et Cosmochimica Acta*. 69(5), p.1111-1121.

Loeb, M.L.G., L.M. Diener, D.W. Pfennig. (2000) Egg-dumping lace bugs preferentially oviposit with kin. *Animal Behaviour*. 59(2), p. 379-383.

Publications in Preparation

Diener, L.M., News from Online: Chemistry Behind the Scenes.

Diener, L.M. The Eye of the Storm: A Rescue Workers Dilemma.

Diener, L.M. and J. Acker Anderson. Fun with Plants, a Cross-Disciplinary Collaboration.

Presentations

Diener, L.M. and J. Acker-Anderson. 2010. The Sky's the Limit: A Cross-disciplinary Collaboration of Science and Art. NSTA National Conference. Philadelphia, PA.

Moore, J.W., and L.M. Diener. 2009. ChemEd Digital Library. MACTLAC. Holland, MI.

Moore, J.W., L.M. Diener, and S. Stahl. 2009. Chemistry Comes Alive IV: Oxidation/Reduction. NSTA Web Seminar Series. Online.

Diener, L.M. 2009. Secrets of "Smart" Paper. ChemEd 2009. ChemEd 2009. Radford, VA.

Fanis, L. L.M. Diener, and X. Prat-Resina. 2009. Digital Resources from the ChemEd DL. ChemEd 2009. Radford, VA.

Moore, J., L.M. Diener, and D. Toomey. 2009. Spicing up Your Teaching with Resources from the ChemEd Digital Library. Webseminar for NSDL's What Works Series. Online.

Diener, L.M. 2009. Seeing the Invisible: Visual Imaging from the NSDL in the Science Classroom. Educators Technology Conference. Rodgers, AR.

- Diener, L.M. 2009. An Introduction to the National Science Digital Library (NSDL). Third Annual Best Practices in Science, Math and Engineering Teaching Conference. Baraboo, WI.
- Diener, L.M. and R. Payo. 2009. The Good, the Bad, and the Hydrophobic: Proteins and the Cell. NSTA National Conference. New Orleans, LA.
- Moore, J.W., L.M. Diener, and J. Skinner. 2008. Chemistry Comes Alive III: Water. NSTA Web Seminar Series. Online.
- Fanis, L, L. Diener. 2008. Using Journal of Chemical Education Digital Resources to Support Research at 2-year Colleges. The 182nd 2YC₃ Conference.
- Diener, L.M., and L. Fanis. 2008. Dive into Water Resources from the National Science Digital Library. Regional Educators Technology Conference. Rogers, AK.
- Diener, L.M., L. Fanis, J. Holmes, E.K. Jacobsen, J. Moore, H. Eppley, B. Reisner, J. Stewart, L. Watson. 2008. Introduction to the Chemical Education Digital Library. Biennial Conference on Chemical Education. Bloomington, IN.
- Bowers, S., L. Diener and L. Eisele. 2008. The Science of Art. Workshop Session. Wisconsin AfterSchool Association Annual Conference. Appleton, WI.
- Diener, L.M. and R. Payo. 2008. A Tasty Lesson: Using the senses of taste and smell to teach the basics of the cell. NSTA National Conference. Boston, MA.
- Diener, L.M. 2007. Invited Talk. The Chemistry of Taste: Ideas for the Chemistry Classroom. Rock River ACS Section. November Meeting: Focus on Teachers.
- Diener, L.M. and J. Moore. 2007. Chemistry Comes Alive II! Sticky Molecules and Folding Proteins. NSTA Web Seminar Series. Online.
- Diener, L.M. and E. Jacobsen. 2007. The Chemistry of Taste: Ideas for the Chemistry Classroom. ChemEd Conference. Denton, TX.
- Schiebel, A. and L. Diener. 2007. Student as Teacher: Using Elementary Partnerships to Reinforce Conceptual Understanding in College Students. Best Practice in Science, Math and Engineering Teaching Conference. Baraboo, WI.
- Moore, J., L. Diener, and J. Holmes. 2007. Chemistry Comes Alive! NSTA Web Seminar Series. Online.

Bowers, S., L. Diener and L. Eisele. 2007. Establishing Quality Afterschool Science Clubs. Workshop Session. Wisconsin AfterSchool Association Annual Conference. Waukesha, WI.

Diener, L. and W. Bleam. 2006. X-Ray Absorption Studies of Mercury Binding to Sulfur Ligands. Poster, M-182, pg 24. Conference on Mercury as a Global Pollutant. Madison, WI.

Diener, L.M., S. Bowers, L. Eisele. 2006. After School Science Clubs! Workshop Session. Wisconsin AfterSchool Association Annual Conference. Waukesha, WI.

Diener, L.M., A. Jurgenson, W.F. Bleam. 2004. Sulfur K-edge XANES study of mercury binding in biological compounds. Poster. Synchrotron Radiation Center users meeting. Stoughton, WI.

Diener, L.M. A.S. Yuroff, T.C. Balsler, W.F. Bleam. 2003. Sulfur K-edge XANES studies of microbial cell lysates. Poster. American Chemical Society meeting, NY, New York. Division of Environmental Chemistry.

Diener, L.M., J.A. Howe, P.A. Helmke, and W.F. Bleam. 2001. X-ray absorption studies of Cu(II) binding to humic nitrogen ligands. Poster. American Society of Agronomy National Meeting, Charlotte, NC.

Howe, J.A., P.A. Helmke, L.M. Diener, and W.F. Bleam. 2001. Binding of Cu^{2+} to fulvic acid using Donnan membrane equilibrium technique. Poster. American Society of Agronomy National Meeting, Charlotte, NC.

Bleam, W.F., Diener, L.M., Yoon, S.J., Hickey, W.J., Bloom, P.R., and Skyllberg, U.L. (2001) Complexation of Methylmercury, Hg(II), And Pb(II) by humic substances and Cysteine: Implications for Microbial Methylation. Invited, Preprints of extended abstracts of American Chemical Society National Meeting, Chicago, Il, Div. Environ. Chem., v. 41, p. 531-532.

Workshops and Professional Development

March 2010: National Science Teachers Association (NSTA) national conference. Philadelphia, PA.

May 2009: Annual Teaching & Learning Symposium. From Teaching to Learning. Madison, WI.

March 2009: POGIL Workshop at Mount Mary College. An introduction to the use of POGILS in the classroom. Milwaukee, WI.

March 2009: National Science Teachers Association (NSTA) national conference. New Orleans, LA.

June 2008- July 2008: Mentoring Class. This class focused on helping to enhance research mentoring abilities in participants. Madison, WI.

May 2008: Annual Teaching & Learning Symposium. Shaping the Future. Madison, WI.

May 2007: Annual Teaching & Learning Symposium. Enriching learning for all. Madison, WI.

May 2007: Best Practice in Science, Math and Engineering Teaching Conference. Baraboo, WI.

May 2007: Forward to Professorship. Focused on preparing women and minorities for jobs as professors.

May 2006: Case Studies in Science Workshop. Focused on the use of case studies in science classes. Buffalo, NY.

May 2006: Annual Teaching & Learning Symposium. Reconsidering Learning Styles and Strategies: Strategies for Teaching Today's Students. Madison, WI.

July 2004: Regional Workshop Program, topic Environmental Science Education: Pedagogy, Curricula and Funding, supported by the National Science Foundation (NSF). Attended as an intern. Duties included participation in the workshop, acting as an intermediary between participants and organizers, and assessment of workshop success through surveys and a focus group.

Committees and Service

April 2010 – present: Member. Mount Mary Sustainability Task force. Charged with finding ways that Mount Mary College can adopt more sustainable practices.

September 2009 - present: Member. Chemical Education Digital Library Committee. Attend biweekly meetings to assess the free resources, determine how to improve them and make them more useful to teachers. Discover ways to make teachers aware of the resources and teach them how to use them.

September 2008 – present: Co-advisor, Tri beta Science Society, Mount Mary College Chapter. Serve as an advisor to the student members of the Tri beta society. Attend all meetings. Help to plan, fund and facilitate activities for members.

August 2009 – present: Co-Chair, Diversity Committee, Mount Mary College. Responsible for setting the agenda for the committee, scheduling

meetings and space for the meetings, running the meetings.

Accomplishments of the committee: Wrote a proposal for the creation of a Diversity office on campus. Planned and implemented the 1st Annual Mount Mary Multicultural Fair.

October 2008 – present: Member, Diversity Committee, Mount Mary College. This committee seeks to make people aware of the various types of diversity present on the campus and to make the climate of the campus more welcoming to a diverse student body. Some projects the committee is currently working on include, bringing in speakers with expertise on diversity, help facilitate the formation of student organizations that support diversity, and development of a mentoring programs for a diverse student body.

April 2006-August 2008: Member, Expanding Your Horizons Organizational Committee. Active in many different aspects of the Expanding Your Horizons annual conference, from recruiting group leaders and presenters, organizing presentations, to promoting the conference.

September 2006-May 2008: Lab Safety Committee, Edgewood College. Address concerns about lab safety. Monitor labs to ensure all safety precautions are taken.

August 2005 – May 2007: Biology Curriculum Committee, Edgewood College. Responsible for determining goals and assessment strategies for the core Biology courses. Also determine the budget for the Biology department and how to allot money to be spent. Responsible for developing ideas to connect students more closely to the faculty and the Biology department.

August 2005 – May 2008: Social Committee, Edgewood College. Responsible for developing, organizing and supplying food for social gatherings for the Natural Science Department and the Sonderegger Science Center, an interdisciplinary, K-16 facility where all forms of Science are taught to all ages on the Edgewood campus. Events planned to date: Beginning of semester social, Chili Feed, Wine and cheese social.

August 2000 - August 2003: Elected Member of the Molecular and Environmental Toxicology Student Liaison Committee (SLC), UW-Madison. The SLC is the governing and organizational body of the METC students. Responsibilities included protecting student rights, organizing meetings, fund raising and poster sessions.

August 2002 - August 2003: Student Representative, Molecular and Environmental Toxicology Center (METC) Preliminary Exam Committee, UW-Madison. Responsible for writing/grading a preliminary exam question and choosing questions for the METC preliminary examination.

August 2000 - August 2002: Student Representative, Environmental Toxicology curriculum advisory committee, UW-Madison. Voting member involved in curriculum and program development and changes.

June 2001 - June 2002: Student Representative, Molecular and Environmental Toxicology seminar committee, UW-Madison. Chose and organized speakers for the Molecular and Environmental Toxicology seminar series.

Teaching Certifications

May 2004 – August 2005: First individual to receive the Delta certificate in research, teaching and learning. Certificate presented after the completion of requirements at graduation:

- 2 classes in teaching/education
- undertake a teaching and learning internship
- participation in a teaching and learning community
- completion of a teaching portfolio

Internships in Public Science Education

September 2003 – August 2004: Internships in Public Science Education (IPSE), funded by the NSF. Responsible for development and presentation of science curricula and related educational programming for K-12 and college students. Conduct a variety of science presentations for K-12 students. Presentations at the Discovery World Museum, (Milwaukee WI.): Summer Science Camp (Build it), Secret Lab Saturdays, Tech Trek. Other presentations: Whys and Wows, Science Saturday, Family Science Nights, Expanding your Horizons, Classroom presentations.

Technical Experience

Microsoft Excel, Microsoft Word, Microsoft Power Point, Dreamweaver, HTML, Photoshop, Electronic mail, X-ray absorption spectroscopy, GC-MS, Neutron Activation Analysis, Wet chemistry, culturing microorganisms, constructing microbial growth curves using klett meter and UV spectrophotometer, techniques to lyse microbial cell walls, microbial toxicity experiments, atomic absorption spectroscopy.

Professional Affiliations

August 2003 - present: Member, American Chemical Society

June 2009 – present: Member, National Science Teachers Association