

CURRICULUM VITA**Janet M. Batzli, PhD**jcbatzli@wisc.edu ; 608-263-1594

PRESENT POSITION: Interim Director & Distinguished Faculty Associate, Biology Core Curriculum, University of Wisconsin- Madison

APPOINTMENTS

Interim Director & Dist Faculty Assoc	Biology Core Curriculum University of Wisconsin, Madison	2019- present
Associate Director & Faculty Assoc	Biology Core Curriculum University of Wisconsin, Madison	2002- 2019
Assistant Professor (NTT)	Plant Biology & Lyman Briggs School Michigan State University, East Lansing	2001-2002
Visiting Assistant Professor	Dept. Plant Biology University of Illinois, Urbana	1998 -1999

EDUCATION

Michigan State University, East Lansing	Science Education	Postdoc, 2001
University of Illinois, Urbana/Champaign	Plant Biology	Ph.D, 1998
University of Maryland, College Park	Horticulture	M.S. 1991
University of Wisconsin, Madison	Horticulture	B.S. 1987

TEACHING EXPERIENCE

2019- present	Becoming a Scientist: Doing Biology Research (Biocore 181) (enrollment 20)
2002- present	Ecology, Evolution & Genetics (Biocore 382- fall) (enroll ~124)
2002- present	Cellular Biology Laboratory (Biocore 384- spring) (enroll ~124)
2004- present	Peer Mentor Training Seminar (Biocore 401) (enroll ~30)
2016- present	Teaching practicum for Postdocs in biology education (Delta course - spring & fall)
2018	Inquiry-based Learning in the College Classroom (Delta course enroll~15)
2006- 07	Entering Research Seminar (Biology 375) (enroll ~12)
1999-02	Michigan State University, Lyman Briggs School Introductory Organismal Biology (LBS 144) (enroll ~200)
1998 -99	University of Illinois- Urbana/Champaign, Visiting Assistant Professor, Plant Biology Introductory Biology (100/101) (enroll ~400)
1991-98	Graduate Teaching Assistant, University of Illinois- Urbana/Champaign Introductory plant biology course (3 semesters), general biology course (3 semesters), second year forest biology course (1 semester), third year tree physiology course (1 semester).

TEACHING & LEARNING LEADERSHIP & INVITED CONSULTATION

2018	Nazarbayev University, Astana, Kazakhstan Writing Center Program invited consultant and workshop leader for Writing Across STEM Curriculum
2015-17	University of Colorado- Boulder invited consultant for validation of the Genetic Concept Assessment concept inventory (PI Jennifer Knight)
2015-19	University of Wisconsin Teaching Academy- Peer Feedback on Teaching project lead and consultant
2013	University of Copenhagen, Denmark invited consultant for faculty professional development programming and creation of a Teaching Academy
2011-14	Madison Teaching and Learning Excellence (MTLE) program, Co-founder and first director
2008-13	FIRST IV Regional Team Leader (NSF-DUE 618501) invited consultant, workshop leader and teaching mentor for ~40 postdoctoral fellows D. Ebert-May (PI), Terry Derting (co-PI)
2007	Kuwait University, Kuwait City invited consultant for faculty professional development in active learning pedagogy

ADDITIONAL LEADERSHIP & SERVICE

2016-18 Chair, University Honors Committee

- 2016- Lakeshore Nature Preserve Committee member
- 2015- University Honors Committee member
- 2015- Teaching & Learning Symposium Planning Committee member
- 2013- Chancellor Scholar mentor for URM students (mentored 2 students sequentially over 7 years)
- 2013-19 Monitoring editor for the journal CBE Life Sciences Education
- 2012- DELTA Steering Committee
- 2010-12 Co-Chair, University of Wisconsin- Madison Teaching Academy
- 2008-13 UW Teaching Academy Executive Committee Member

SCHOLARSHIP, RESEARCH, & MENTORING

- 2018- Pedagogy of feedback, scientific discourse, and student development of scientific identity
- 2014-19 Assessment of threshold crossing for biological variation as a threshold concept in evolution education
- 2010-14 Curricular assessment of quantitative genetics curriculum using Wisconsin Fast Plants
- 2012- Mentor for postdoctoral teaching fellows, Biocore
- 2012-15 Mentor for pre-tenure faculty in teaching, MTLE
- 2008-13 Mentor for postdoctoral teaching fellows, FIRST IV
- 2008-10 Cross-curriculum Genetics Assessment & Evaluation
- 2005-08 Efficacy of academic peer mentoring on academic success and learning community development
- 2002- Mentor undergraduate ecological research in prairie ecology and urban stream ecology
- 2002- Mentor graduate and postdoctoral research in biology education research
- 1999-02 Research Associate Michigan State University, Science Education Research, testing the efficacy of web-based instruction in general biology curriculum. Classroom research on scientific misconceptions associated with carbon cycling, photosynthesis, cellular respiration.
- 1992-97 University of Illinois- Urbana/Champaign, Advisor: Dr. Jeffrey O. Dawson
Ph.D. Thesis: Physiological and morphological responses of nitrogen-fixing red alder (*Alnus rubra*) and Sitka alder (*Alnus viridus* ssp. *sinuata*) to flooding: inter- and intraspecific comparisons
- 1992 Organization for Tropical Studies Tropical Managed Ecosystems course in Costa Rica. Eight-week intensive, field-oriented program focusing on the scientific and social dimensions of sustainable development in the tropics with an interdisciplinary approach.
- 1991 University of Maryland-College Park
Research assistant at USDA-ARS for Dr. Peter van Berkum, microbiologist, USDA Nitrogen Fixation and Soybean Genetics Lab.
- 1989-91 University of Maryland -College Park, Advisor: Dr. William R. Graves
M.S. Thesis: Indigenous rhizobial diversity of *Robinia pseudoacacia* and nodulation studies of *Maackia amurensis* and *Sophora japonica*
- 1987-89 U.S. National Arboretum, USDA - ARS, Washington, D. C.
Research assistant for Dr. Frank S. Santamour, Jr.

SCIENCE EDUCATION PUBLICATIONS (peer reviewed)

1. Batzli, J.M., Harris, M.A., Lee, D., Horn, H.A. 2021. Feedback and discourse as a critical skill for the development of experimentation competencies. In Pelaez, N, Anderson, T, and Gardner, S (eds). Trends in Teaching Experimentation in the Life Sciences. (in press)
2. Walck-Shannon, Elise, Batzli, J.M., Pultorak, J., Boehmer, H. 2019. Biological variation within species as a threshold concept: Can we measure threshold crossing? CBE-Life Science Education. 18 (3)
3. Harris, Michelle A., McGee, S. A., Batzli, J.M. 2018. Uncooking Yeast: Cells signaling a rise to inquiry. Tested Studies for Laboratory Teaching. Proc. Association for Biology Laboratory Education. 38 (9).
4. Batzli, Janet M., Harris, M.A., McGee, S.A. 2018. It takes time: Learning process of science through an integrative, multi-semester lab curriculum. Tested Studies for Laboratory Teaching. Proc. Association for Biology Laboratory Education. Volume 39, Article #.
5. Batzli, Janet, Knight, J., Hartley, L., Maskiewicz A., and Desy B. 2016. Crossing the Threshold: Bringing Biological Variation to the Foreground. CBE Life Science Education 15(4) DOI:10.1187/cbe.15-10-0221
6. Remsburg, Alyssa J., Harris, M. A., Batzli, J. M. 2014. Statistics across-the-curriculum using an iterative approach in an inquiry-based lab sequence. J. College Sci Teach 44(2):72-81.
7. Batzli, Janet M., Smith, A. R., Williams, P.H., McGee, S.A., Dosa, K., and Pfammatter, J. 2014. Beyond Punnett squares: Student word association and explanations of phenotypic variation through an integrative

- quantitative genetics unit investigating anthocyanin inheritance and expression in *Brassica rapa* Fast Plants. CBE-Life Science Education 13:410-424.
8. Prunuske, Amy J., Batzli, J. M., Howell, E., and Miller, S. 2012. Using online lectures to make time for active learning. Genetics 192: 67-72.
 9. Cox-Paulson, Elizabeth A., Grana, T., Harris, M.A., and Batzli, J.M. 2012. Using *C. elegans* to study human disease genes: A molecular genetics curriculum suitable for large enrollment laboratory courses. CBE- Life Science Education 11:165-179.
 10. Phillips, Alison R., Robertson, A. L., Batzli, J., Harris, M., Miller, S. (2008). Aligning goals, assessments, and activities: An approach to teaching PCR and gel electrophoresis. CBE- Life Science Education 7(1): 96-106
 11. Batzli, Janet M., Ebert-May, D., Hodder, J. 2006. Bridging the pathway from instruction to research. Front. Ecol. Environ. 4(2):105-107.
 12. Hodder, Janet, Ebert-May, D., Batzli, JM 2006. Coding to analyze students' critical thinking. Front. Ecol. Environ. 4(3):162-163.
 13. Ebert-May, Diane, Batzli, JM. Weber, EP 2006. Designing research to investigate student learning. Front. Ecol. Environ. 4(4):218-219.
 14. Batzli, Janet M. 2005. A unique approach? Four semesters of Biology Core Curriculum. CBE-Life Science Education vol 4: 125-128.
 15. McGroarty, Estelle, Parker, J., Heidemann, M., Lim, H., Olson, M., Long, T., Merrill, J., Riffell, S., Smith, J., Batzli, J., Kirschtel, D. 2004. Supplementing Introductory Biology With On-Line Curriculum. Biochem & Mol. Bio. Ed. 32, 1, pp.20-26
 16. Luckie, Douglas B., Batzli, J. M., Harrison, S., Ebert-May, D. 2003. C-TOOLS: Concept-Connector Tools for online learning in science. International J of Learning 10: 1051-1067.
 17. Ebert-May, Diane, Batzli, J.M., and Lim, H. 2003. Disciplinary Research Strategies for Assessment of Learning. Bioscience 53(12): 1221-1228.

REPORTS and PRODUCTS

1. Process of Science Companion PressBook Book 1: Scientific Writing. Batzli, J., Harris, M. 2020
2. Process of Science Companion PressBook Book 2: Group Collaboration. Batzli, J., Harris, M., Khan, B. 2020
3. Process of Science Companion PressBook Book 3: Statistics Primer. Harris, M, Nordheim, E., Batzli, J. 2020
4. Biocore Writing Manual and Rubrics. Batzli, J. and Harris, M. 2018-19
5. Biocore Self-Study for Biocore Program Review Committee. Batzli, J. and Bethke, P. 2020
6. Biocore Diversity Report 2019, 2020
7. Biocore Teaching and Learning Excellence Report 2019, 2020
8. Multi-semester curriculum assessment of Biocore genetics education. Batzli, J., Harris, M., Clark, K., Yu, X. 2010
9. Learner Centered Teaching Evaluation Rubrics Parts A & B. Batzli, J, Withers, M., Knight, J., Brickman, P. 2010

BIOLOGY RESEARCH PUBLICATIONS (peer reviewed)

1. Batzli, Janet M., Zimpfer, J. F., Huguet, V., Fernandez, M. P., and Dawson, J. O. 2004. Nodular symbionts of *Shepherdia*, *Alnus* and *Myrica* from a sand dune ecosystem: Ecological variation of root-nodulation capacity of soil-borne *Frankia*. Can. J. Botn. 82: 700-709
2. Huguet, Valerie, Batzli, J. M., Zimpfer, J. F., Gourbière, F., Dawson, J. O. and Fernandez, M. P. 2004. Nodular symbionts of *Shepherdia*, *Alnus* and *Myrica* from a sand dune ecosystem: Trends in occurrence of soil-borne *Frankia* genotypes. Can. J. Botn. 82: 691-699.
3. Huguet, Valerie, J M. Batzli, J. F. Zimpfer, P, Normand, J. O. Dawson, and M. P. Fernandez. 2001. Diversity and specificity of *Frankia* strains infective on *Myrica gale*, *Alnus incana* and *Shepherdia canadensis* growing in the same natural stand using rrs gene polymorphism. Appl. Environ. Microbiol. 67:2116-2122.
4. Batzli, Janet M. and J. O. Dawson. 1999. Development of flood-induced nodule lenticels on red alder during the restoration of nitrogenase activity. Can. J. Bot. 77:1-5.

5. Batzli, Janet M. and J. O. Dawson. 1997. Physiological and morphological responses of red alder and sitka alder to flooding. *Physiologia Plantarum* 99: 653-663.
6. Batzli, Janet M., W. R. Graves, and P. van Berkum. 1992. Diversity among rhizobia effective with *Robinia pseudoacacia* L. *Appl. Environ. Microbiol.* 58 (7): 2137-2143.
7. Batzli, Janet M., W. R. Graves, and P. van Berkum. 1992. Characterization of rhizobia effective with *Maackia amurensis*. *J. Amer. Soc. Hort. Sci.* 117: 612-616
8. Santamour, Frank S., Jr., and J. M. Batzli. 1990. Root-knot nematodes on willow: Screening of *Salix* sp. cultivars, and hybrids for resistance. *J. Arboriculture*, 16(7): 190-196.
9. Santamour, Frank S., Jr., and J. M. Batzli. 1990. Host checklist of root-knot nematodes (*Meloidogyne* sp.) on broad-leaved landscape trees. *J. Arboriculture*, 16(6): 162-168.
10. Santamour, Frank S., Jr., and J. M. Batzli. 1990. Root-knot nematodes on conifers: A host checklist. *Bull. Amer. Conifer Soc.* 7(3): 63-68.
11. Santamour, Frank S., Jr., J. M. Batzli, and G. K. Eisenbeiss. 1989. Isozyme studies in Holly I: Fingerprinting *Ilex opaca* cultivars. *Holly Soc. J.* 7(4):16-19.

GRANTS

- 2021 Batzli, J.M and Harris, M.A. UW Madison Instructional Continuity Small Grant for development of Covid-19 themed curriculum \$6,345
- 2018 Damschen, E. (PI), Batzli, J.M. (Co-PI). Can past disturbance predict plant species responses to climate change? (DEB NSF 17-512) \$520,334
- 2014 Batzli, J, Maskiewicz, A., Knight, J., Hartley, L. and Desy, E. Introductory Biology Project (RCN NSF PI Gordon Uno) mini-grant to study threshold concepts in biology \$1500
- 2012 Baum, D. (PI) and Batzli, J (co-PI) Educational Innovation grant, UW-Madison- Supplemental Course Evaluations \$25,000
- 2011 Batzli, J. (PI) and Harris, M. (co-PI) UW Provost Assessment grant- Wisconsin Biology Experience Project \$30,000
- 2011 Batzli, J. (PI) and Balster, N. (co-PI) Madison Teaching and Learning Excellence (MTLE)- UW-Madison Initiative for Undergraduates \$300,000
- 2011 Batzli, J. Kemper Knapp Bequest- Jumpstarting Inquiry in Biocore \$3,000
- 2008 Batzli, J. (PI) and Harris, M. (co-PI) UW Provost Assessment grant- Genetics Assessment Project \$54,000
- 2007 Batzli, J. Instructional Laboratory Modernization UW-Madison grant \$177,783
- 2005 Academic Staff Professional Development UW-Madison Grant \$553
- 2004 Batzli, J. College of Letters & Science UW-Madison, Honors Program- Peer Led Team Learning \$3,000
- 2004 Batzli, J. Instructional Laboratory Modernization UW-Madison grant, \$108,700
- 2003 Batzli, J. Kemper Knapp Bequest- Biocore Prairie Restoration Project \$4,950
- 2002 Luckie, D., Batzli, J (co-PI) and Ebert-May, D. C-TOOLS (NSF ASA 0206924) \$356,434

HONORS and AWARDS (while at UW Madison)

- 2019 Madison Teaching and Learning Excellence (MTLE) Leadership Award
- 2019 Honored Instructor- Chadbourne Residential Housing (student nomination)
- 2018 Honored Instructor- Chadbourne Residential Housing (student nomination)
- 2017 Honored Instructor- Chadbourne Residential Housing (student nomination)
- 2015 UW Teaching Academy Award for Innovation, Commitment and Excellence in Teaching
- 2014 UW- Madison Teaching Academy Dedicated Service Award
- 2012 Phi Beta Kappa – alpha Chapter of Wisconsin teaching award (student nomination)
- 2010 Distinguished Honors Faculty- College of Letters and Science Honors Program (student nomination)
- 2007 National Academies Education Fellow in the Life Sciences
- 2007 Honorary Member- Golden Key International Honors Society
- 2005 UW- Madison Teaching Academy

PROFESSIONAL SOCIETIES

- 2011- Society for the Advancement of Biology Education Research (SABER)
- 2007-09 American Association for Education Research (AERA)

- 2003-07 National Association of Biology Teachers (NABT)
 2003- Association for Biology Laboratory Educators (ABLE)
 2000-02 National Association for Research in Science Teaching (NARST)
 1992- Ecological Society of America (ESA)

PROFESSIONAL PRESENTATIONS & INVITED TALKS (last 10 years)

- Horn, H., Batzli, J.M., Harris, M.A. Using a graphic syllabus to personalize the process of science and explore science identity in a multi-semester lab course sequence. Society for Advancement of Biology Education Research virtual meeting July 31, 2020
- Batzli, J. The big picture- your education. Invited address for Alpha Chi Sigma annual banquet. Nov 23, 2019.
- Batzli, J. I'm curious: pivoting from the benchmark. Invited address for National Collegiate Honors Society. Madison, WI April 10, 2019.
- Batzli, J. Peer Feedback on Teaching: Professional Development? And/or Teaching Evaluation? Members only Invited talk, UW Teaching Academy retreat. April 8, 2019.
- Batzli, J. Inquiring into learning: Questions and Approaches for Biology Education Research. Invited talk. Alpha Chi Sigma Science Week. April 5, 2019.
- Walck-Shannon, E., Pultorak, J., Batzli, J. Biological variation within species as a threshold concept: Can we measure threshold crossing? 7th Biennial Threshold Concepts Conference. Miami University of Ohio, Oxford, OH. June 13-15, 2018.
- Schmid, M. and Batzli, J. Leveraging alignment to overcome active learning challenges. UW Teaching & Learning symposium May 17, 2018.
- Batzli, J. Inquiry into learning: Questions and approaches to Biology Education Research. Invited speaker- Northern Illinois University Biology Department, Host: Heather Bergan-Roller March 22, 2018.
- Walck-Shannon, E., Pultorak, J., Batzli, J. Biological variation within species as a threshold concept: Can we measure threshold crossing. Society for Advancement of Biology Education Research July, 2017.
- Batzli, J. Peer Feedback on Teaching. Invited speaker for Women Faculty Mentoring Program. UW Madison April 26, 2017.
- Walck-Shannon, E., Jobe, E., Batzli, J. Using a threshold concept framework to examine student explanations of variation within species. Society for Advancement of Biology Education Research July, 2016.
- Batzli, J. Crossing the Threshold: From Concept to Competency. Gordon Conference for Undergraduate Biology Research, Lewiston, ME July, 2015.
- Batzli J., Smith, A., Williams, P.H., McGee, S., Dosa, K. and Pfammater, J. Beyond Punnett Squares: Transforming genetics learning in an integrated introductory biology course. Society for Advancement of Biology Education Research July 17-19, 2014.
- Batzli, J. Introductory Biology Project - Invited meeting for stimulating partnerships in introductory biology through DBER (Discipline Based Science Education) (RCN-NSF funded, Gordon Uno, PI) Denver, CO November 2013
- Batzli, J. Learning about learning in biology classrooms. Invited talk for Women In Science and Engineering learning community. UW Madison October, 2013.
- Balster, N., Batzli, J. The University of Copenhagen Initiative on Teaching and Learning in Higher Education. Invited speaker and consultants. Copenhagen, Denmark Sept. 25-29, 2013.
- Miller, S., Batzli, J., Balster, N., and Utzerath, E. Shifting Research Universities Toward a Culture of Learning by Supporting Early-Career Faculty in Teaching. Association of American Colleges and Universities General Education and Assessment Conference, February 28- March 2, 2013, Boston, MA.
- Batzli, J., Smith, A., Williams, P., McGee, S., Dosa, K. Beyond Punnett Squares: Learning quantitative genetics in an inquiry-based introductory lab course. Society for the Advancement of Biology Education Research, July 12-15, 2012 and Ecological Society of America, Portland, OR August 5-10, 2012.
- Harris, M. Lorimer, R. and Batzli, J. Using rubrics to guide teaching assistant professional development in writing intensive courses Society for Advancement of Biology Education Research 2012
- Batzli, J. Assessment of multi-semester Biology Core Curriculum at UW-Madison. Invited talk for Center for Research on College Science Teaching and Learning, Michigan State University. Nov. 14, 2011.
- Batzli, J., Harris, M., Harell, K., Smith, A., Giffen, C., Branchaw, J., Heitz, J. Biology students' development of scientific inquiry and reasoning skills: Are there key experiences that matter? Society for the Advancement of Biology Education Research, July 29-August 1, 2011.
- Batzli, J., Harris, M. Generating an assessment framework using UW Essential Learning Outcomes. UW President's Summit, April 14-15, 2011. Madison Concourse, Madison, WI.

Batzli, J., Harris, M., Clark, K., Yu, X. Multi-semester curriculum assessment of Biocore genetics education. Annual Meeting of the Ecological Society of America, Pittsburgh, PA. August 1-6, 2010.

WORKSHOP LEADER (last 10 years)

- Batzli, J and Harris, M. Delivering feedback to student-writers: Nurturing growth or bearing bad news? UW Madison Writing Across the Curriculum instructor training. August 2020 online workshop.
- Batzli, J. Providing Feedback on the Research Process: Science Reasoning Through Oral Presentations Nazarbayev University, Astana Kazakhstan. October 2018
- Batzli, J. Designing for discourse into STEM courses. Nazarbayev University, Astana Kazakhstan. October 2018
- Batzli, J and Harris, M. Delivering feedback to student-writers: Nurturing growth or bearing bad news? UW Madison Writing Across the Curriculum instructor training. August 2018.
- Schmid, M. and Batzli, J. Leveraging alignment to overcome active learning challenges. Teaching and Learning Symposium. UW Madison May 2018.
- Batzli, J., Nellis, M., Wyatt, L., Treves, A., Schoeder, S. Field trip into the Lakeshore Nature Preserve: The Essential Wisconsin Experience. Teaching and Learning Symposium. UW Madison May 2017.
- Batzli, J., Martin, B., Schmid, M., Wenker, S. Framework for collegial peer feedback on teaching. Teaching Academy workshops April, May 2015; Teaching and Learning Symposium. UW Madison May. 2015; Teaching Academy April, May 2016.
- Batzli, J. Active Learning 101. MTLE three-week module. UW Madison Fall 2015.
- Batzli, J., Martin, J., Schmid, M. Peer feedback on teaching. MTLE Faculty Institute on Teaching. UW Madison Aug. 2014.
- Batzli, J. Scaffolding scientific writing through biology curriculum. UW-Writing Center. June 21, 2014.
- Batzli, J., Dakes, C., Halverson, E., Miller, S. Peer review of Teaching. UW Teaching and Learning Symposium. May 2013.
- Smith, G., Batzli, J., Branchaw, J., Brantly, S. Four Models of Peer Mentoring. UW Teaching and Learning Symposium. May 2013.
- Batzli, J., Maher, J., Malcolm, G. You Want to Do What? Integrating Scientific Communication Into Large Undergraduate Courses. Ecological Society of America, Portland, OR August 6, 2012.
- Batzli, J, Linton, D., and Rauschert, E. FIRST IV Regional Workshop for Science Postdocs in Teaching and Learning. Kellogg Biological Station. June 1-4, 2011 and May 29- June 1, 2012.
- McDaniel, S., Miller, S., Batzli, J., Balster, N., Hughes, B. Madison Teaching and Learning Excellence Program, Faculty Institute on Teaching. UW Madison Aug. 2012.
- Batzli, J and Harris, M. Writing to learn science. UW-Writing Center teaching assistant staff retreat. January 21, 2011.
- Batzli, J and Ebert-May, D. Engaging the Masses: Meeting the Challenges of a Large Intro Class. Annual meeting of the Ecological Society of America, Pittsburgh, PA. August 2, 2010.
- Batzli, J, Long, T., and Linton, D. FIRST IV Regional Workshop for Science Postdocs in Teaching and Learning. Kellogg Biological Station. June 2-5, 2010.

OUTREACH

2007-11 One-week summer science camp unit for the Biocore Outreach Ambassadors collaborating with undergraduate Biocore students to lead a prairie ecology unit for 4th-12th graders utilizing the same inquiry pedagogy we implement in our Biocore lab courses.