

Rebecca Teed

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EDUCATION:

- Ph.D. - University of Minnesota - Ecology, Evolution, and Behavior: 1999
- M. Phil. - University of Cambridge - Quaternary Studies: 1993
- B.A. - Williams College – Biology: 1990

PROFESSIONAL TEACHING & RESEARCH EXPERIENCE:

- Associate Professor, Department of Biological Sciences, Wright State University (2022-present)
- Interim Chair, Department of Earth & Environmental Sciences, Wright State University (2021-2022)
- Associate Professor, Department of Earth & Environmental Sciences, Wright State University (2012 – present)
- Assistant Professor, Department of Earth & Environmental Sciences/ Department of Teacher Education, Wright State University (2006 – 2012)
- Visiting Assistant Professor, Department of Geological Sciences, Wright State University (2004 – 2005)
- Research Associate, Science Education Resource Center, Carleton College (2003 – 2004)
- Research Associate, Department of Biology, Carleton College (2001 – 2003)
- Adjunct faculty, Dept. of Geology/Graduate School, University of Minnesota (2002 – 2004)
- Lecturer, European Division, University of Maryland, Overseas Division (2000 – 2001)
- Research Associate, Department of Geology, University of Minnesota (1999 – 2000)

PEER-REVIEWED PUBLICATIONS

Teed, R. E., William, H., Romine, W. L. (accepted). An Effective Hands-On Active-Learning Plate-Tectonics Curriculum. *Journal of College Science Teaching* **54**(5): 359–368. DOI: [10.1080/0047231X.2025.2472168](https://doi.org/10.1080/0047231X.2025.2472168)

McGowin, A.E., and Teed, R. (2019). [Increasing Expression of Civic-Engagement Values by Students in a Service-Learning Chemistry Course](#). *Journal of Chemical Education* **96**: 2158-2166. DOI: 10.1021/acs.jchemed.9b00221

Warren, E.L., Teed, R., Sanders, S., Foskuhl, B.J., and McGowin, A.E. (2019). [Heavy metals, iron, and arsenic in water and sediment from a cold spring in southwest Ohio](#). *Environmental Engineering Science* **36**(10): 1296-1306. DOI: 10.1089/ees.2019.0177

- Holmgren, C. and Teed, R. (2017). Changing Biosphere. D. McConnell (Ed.) http://serc.carleton.edu/integrate/teaching_materials/biosphere/index.html
- Teed, R. and Franco, S. (2014). [Increasing teachers' confidence and pedagogical content knowledge through a workshop and follow-up program on climate change](#). *Journal of Geoscience Education*, **62**(5): 587-597. DOI: 10.5408/13-039.1
- Basista, B., Harris, C., Tomlin, J., Mathews, S., and Teed, R. (2011). [Dual appointments in science and mathematics education: Supporting collaboration for education in a democracy](#). *Education in a Democracy: A Journal of the NNER (National Network for Educational Renewal)* **3**: 47-74.
- Teed, R., and Slattery, W. (2011). [Changes in geologic time understanding in a class for pre-service teachers](#). *Journal of Geoscience Education* **59**: 151-162. DOI: 10.5408/1.3604829
- Teed, R., Umbanhowar, C.E., Jr., and Camill, P. (2009). [Multi-proxy lake sediment records at the northern and southern boundaries of the aspen parkland region of Manitoba, Canada](#). *The Holocene* **19** (6): 937-948. DOI: 10.1177/0959683609336569
- Slattery, W., Teed, R., Cole, T. and Davis, C. (2007). A multi-disciplinary Earth systems course designed for pre-service middle school teachers. *Journal of Geoscience Education* **55**: 218-221. DOI: [10.5408/1089-9995-55.3.218](#)
- Umbanhowar, C.E. Jr., Camill, P., Geiss, C., and Teed, R. (2006). [Asymmetric vegetation responses to mid-Holocene aridity at the prairie-forest ecotone in south-central Minnesota](#). *Quaternary Research* **66** (1): 53-66. DOI: 10.1016/j.yqres.2006.03.005
- Teed, R. (2005). [A student-centered project for Earth system history](#). *Journal of Geoscience Education* **53**: 96-100. DOI: 10.5408/1089-9995-53.1.96
- Camill, P., Umbanhowar, C.E., Teed, R., Geiss, C.E., Dvorak, L., Kenning, J., Limmer, J., Walkup, K., Aldinger, J. (2003). [Late Glacial and Holocene Climatic Effects on Fire and Vegetation Dynamics at the Prairie-Forest Ecotone in South-Central Minnesota](#). *Journal of Ecology* **91**: 822-836. DOI: 10.1046/j.1365-2745.2003.00812.x
- Allison, T.D., Art, H.W., Cunningham, F.E., and Teed, R. (2003). [Forty-two years of succession following clear-cutting in a northern hardwoods forest in northwestern Massachusetts](#). *Forest Ecology and Management* **182**: 285-301. DOI: 10.1016/S0378-1127(03)00066-5
- Teed, R. (2000). [A >130,000-Year-Long Pollen Record from Pittsburg Basin, Illinois](#). *Quaternary Research* **54**: 264-274. DOI: 10.1006/qres.2000.2161

BOOK CHAPTERS

- Grimley, D., Teed, R., and Phillips, A. 2015. Stop 8: Central Illinois Materials sand pit/Catfish Pond paleoecology. In D.A. Grimley and A.C. Phillips (Eds.), [Ridges, mounds, and valleys: Glacial-interglacial history of the Kaskaskia Basin, southwestern Illinois](#): 55th Midwest Friends of the Pleistocene 2011 Field Conference (pp. 107-109). Champaign IL: Illinois State Geological Survey Prairie Research Institute. Open File Series 2011-1.

RECENT PRESENTATIONS AT SCIENTIFIC CONFERENCES

- Teed, R. 2023. Measuring Content-Knowledge Gains in a Lecture-Based Environmental Science Class. Geology Society of America Annual Meeting, Pittsburgh PA.

- Manker, J., and R. Teed. 2020. North American freshwater snails as paleoecological proxies in Crystal Lake, Ohio. Geology Society of America Annual Meeting, Online (Montréal, Québec).
- Manker, J., and R. Teed. 2019. Mollusks as lake-level indicators in Crystal Lake, Ohio. Geology Society of America North-Central Section Meeting, Manhattan KS.
- Kopera, K. and R. Teed. 2019. Vegetation sensitivity during the mid-Holocene warming in western Ohio. Geology Society of America North-Central Section Meeting, Manhattan KS.
- Teed, R. 2018. Do Student Note-Sheets Increase Quiz Scores? Geological Society of America Annual Meeting, Indianapolis, IN.
- Teed, R. 2018. The One-minute Paper and Other Interactive Tricks for a Large-group Class. American Physiological Society Institute for Teaching and Learning, Madison WI. (INV)
- Teed, R. 2017. CiG3: An open-ended pre/post-test for introductory geology. Geological Society of America Annual Meeting, Seattle, WA.
- Teed, R. 2017. Do better-prepared students learn more from collaborative tests? Geological Society of America Annual Meeting, Seattle, WA.
- Holmgren, C.A., and R. Teed. 2017. From mass extinctions to modern extinctions: Teaching with InTeGrate's online Changing Biosphere module. Geological Society of America Annual Meeting, Seattle, WA.
- Warren, E., Teed, R., and McGowin, A. 2017. Source determination of arsenic, lead, and cadmium in the Yellow Spring sediment in Glen Helen Nature Preserve, OH. Geology Society of America North-Central Section Meeting, Pittsburgh, PA.
- Teed, R. 2016. Preliminary pollen analysis of sediments from Crystal Lake, western Ohio. American Quaternary Association Biennial Meeting, Santa Fe, NM.
- Schmus, M., Teed, R. 2016. Measuring Student Learning Gains and attitudes in Earth and Environmental class for pre-service teachers after additional assignment to rocks and mineral identification lab. Earth Educators Rendezvous. Madison, WI.
- Wilson, A.D., and Teed, R.E. 2016. Shedding some light into crystal lakes: How diatoms can indicate change. Geology Society of America North-Central Section Meeting, Champaign IL.
- Schmus, M., Teed, R., and Hundley, S.A. 2016. Measuring student learning and attitudes of pre-service teachers after an additional assignment to the rock and mineral identification labs during Earth and environmental course. Geology Society of America North-Central Section Meeting, Champaign IL.

GRANTS FUNDED

- Teed, R. Apr. 2016. A Pollen and Diatom Record from Crystal Lake, Medway, OH. \$5,000, 100% portion, WSU Women in Science Giving Circle.
- Schen, M., Teed, R., Apr. 2013 (originally Sept 2010). Developing Scientific Reasoning Abilities in Pre-service Teachers. (WSU 0942573, DUE-0942573) - 3 years, \$124,898, National Science Foundation.
- Teed, R., Schen, M., Basista, B., Smith, T., Tomlin, J., Hundley, S., Frysinger, P., Jan. 2011. Earth, Life, and Physical Science Professional Development Program for Grade 5-12

Teachers. (WSU 668301) - 1 year, \$193,609, 8% overhead, 100% portion, Ohio Board of Regents.

Teed, R.E., May 2009. Changes in Geologic Time Understanding in a Class for Pre-service Teachers. \$4,000, 100% portion, West Ohio Center of Excellence for Science and Mathematics Education.

Slattery, W., Teed, R.E., Aug. 2008. Delivering On-Line Professional Development Courses to a New Population of K-12 teachers. (WSU 666911) - 3 years, \$39,220, 8% overhead, 50% portion, Institute for Global Environmental Studies.

Lunsford, S., Slattery, W., Teed, R., and Ciampaglio, C. Nov. 2005. Partners in Integrated Earth Systems Science (PIES). (WSU 06-232-21) – \$63,806, Ohio Board of Regents - Title II: Improving Teacher Quality Program.

TEACHING

Courses Taught at Wright State:

- EES 4510, Effective Scientific Communication
- EES 2600, Environmental Science and Society
- EES 2550, Earth History
- EES 2150, Global Change
- EES1070, Sustainable Earth
- EES 7000, Principles of Instruction in Earth and Environmental Sciences
- GL/EES 345/607/3450, Concepts in Geology
- GL/EES 346/699/3460, Earth Systems
- EES 3250/6250 Climate Change
- GL 699, Earth Science Enhancement
- ED 670, MST Project Development
- EES 401(W)/699, Earth Science Research
- SM 145(W), Foundations in Scientific Literacy and Problem Solving
- EES 199, Cave Geology, co-taught with Chris Atchison

Courses Taught at University of Minnesota

- GEOL 5001, Earth Systems Science for Teachers

Courses Taught at University of Maryland – Overseas Division

- BIOL 101 & 102, General Biology
- BIOL 220, Human Genetics
- MATH 100, Pre-Algebra
- IFSM 201, Concepts and Applications of Information Technology
- Workshops on Networking, MS Word, Excel, FrontPage, and PowerPoint

PROFESSIONAL SERVICE:

Biological Sciences Department Committees & Service

- Bioseminar Committee, chair (2022-present)
- Undergraduate Curriculum Committee (2022-present)
 - Life Science Education Undergraduate Curriculum Subcommittee, chair (2022)
- Undergraduate Petitions Committee

Earth & Env. Sciences Department Committees & Service

- Capital Equipment Inventory (2022)
- Ben Richards Fund, administrator (2022)
- Undergraduate Curriculum Committee (2009-2014, 2020-present)
 - Committee chair 2015-2016
- Dept. Liaison for the American Association of University Professors – WSU chapter (2014 - 2021)
- Ad-hoc EES By-laws Committee, chair (2017-2020)
- Managing the departmental poster printer (2018)
- Webmaster – Earth & Environmental Sciences Department (2013 – 2015)
- MST Studies Committee (member: 2004 – 2015)
- Graduate Studies Committee (member: 2009 – 2011, 2015 – 2020)
- MST (Earth Science) Program (director: 2004 – 2005, Winter 2007)

College Committees

- Environmental Studies BA Committee, member (2022 - present)
- College of Science and Math Dean Search Committee (2022)
- Women in Science Giving Circle & Considine Fellowship (2021-22)
- College of Science and Math Academic Mediation Committee (2021-2022)
- College of Science and Math Curriculum Committee (2017-2021)
- College of Science and Math Instructional Collaborative (member: 2014 – 2018)
- College of Science and Math Steering Committee (elected member: 2013 – 2015)
- College of Science and Math Petitions Committee (member: 2009 – 2013)
- Science and Math Education Council (member: 2006 – 2009)
- Teacher Education Council (member: 2004 – 2009)
- Ctr. for Science & Math Ed. Curriculum Committee (member: 2007– 2009)

University Committees

- Library Advisory Board, member (2022 - 2024), chair (2024-present)
- Faculty Senate (representative: 2020-2021)
- STEMMS Mentoring Circles Advisory Committee (2019-2020)
- University Appeals Committee (member: 2012 – 2014, co-chair: 2014 – 2016)
- Undergraduate Academic Policy Committee (member: 2013 – 2014)
- Information Technology Committee (member: 2010 – 2012)
- Ad hoc Independent Studies Committee (member: 2010)

Wright State University Center for Teaching and Learning Events

- Workshop Leader – How to make a graphic syllabus, November 6th, 2019
- Poster at the Student Success Symposium, 2015 – Using pre-tests and post-tests to measure student learning
- Workshop Leader – Game-based Learning, September 17th, 2014
- Workshop Leader - Assessment Workshop, April 20th, 2012
- Workshop Leader - Cooperative Learning, October 20th, 2011

Professional ServiceAssociate Editor

- *Journal of Geoscience Education* (2012 – 2018)

Peer review of manuscripts submitted for publication in scientific journals

- Reviewer for the *Journal of Geoscience Education* (2005, 2007, 2011 – 2019, 2023)
- Reviewer for *The Holocene* (2017), *Science Education* (2016, 2018), *Hydrology and Earth System Science* (2012), *Quaternary Science Reviews* (2010), *EOS* (2018), *Teacher Education*

Peer review of research proposals:

- U.S. National Science Foundation – Population and Community Ecology Cluster: 2010

American Association of University Professors

- Collective Bargaining Agreement Negotiating Team (2023 - present)
- Wright State Chapter Executive Committee (TET Rep. 2015 – 2016, 2021)

External Reviewer

- Faculty promotion at SUNY Buffalo (2018)
- Sepkowski Award referee (2021)

Community Service

- Guest lecture on Global Warming, University of Dayton, Great Decisions program (October, 2022)
- Outdoor presentation on global warming, WSU Rainbow Alliance (September 2021)
- Online presentation on kelp forests and other ecosystems for Girl Scout Troop 1853 (4/15/2020) for several grade-school students aged 8-10.
- Invited presentation on Scottish peatlands (4/15/19) at Sinclair Community College for 9 community-college students & 2 instructors in a geography course preparing for a field trip to NW Scotland.
- Gave a presentation on what geologists do for a Cub Scout troop in Beavercreek (2016)
- Volunteered to help visitors to Caesar's Creek State Park find and identify fossils for National Fossil Day (2014)

- Worked with graduate students at Wright State to assemble and deliver rock kits for Dayton City Schools (Kiser, Eastmont, and Ruskin Pre-K-8; 2013).
- Taught an Earth history workshop for the Science Education Council of Ohio (K-12 science teachers), Dayton (2013)
- Reported relevant Wright State research findings at a zoning board meeting for Clark County on behalf of the Crystal Lake Housing Association (2010)
- Assisted colleagues at Wright State (Beth Basista) and Central State (Kumar Nedunari) to develop and give a workshop on hydraulic flow and energy conservation for teachers from the Dayton Public School system (2009)

WEB RESOURCES

- Holmgren, C., and Teed, R., Changing Biosphere:
http://serc.carleton.edu/integrate/teaching_materials/biosphere/index.html
- Teed, R., McDaris, J., and Roseth, C. Cooperative learning:
<http://serc.carleton.edu/introgeo/cooperative/index.html>
- Teed, R. Game-based learning: <http://serc.carleton.edu/introgeo/games/index.html>
- McDonald, H., Teed, R., Hoyt, G., Imazeki, J., Millis, B., Vasquez-Cognet, J. Interactive lectures: <http://serc.carleton.edu/introgeo/interactive/index.html>
- Teed, R. Role-playing exercises: <http://serc.carleton.edu/introgeo/roleplaying/index.html>
- Teed, R. Using an Earth history approach:
<http://serc.carleton.edu/introgeo/earthhistory/index.html>