

TIMOTHY GORDON FISHER

Professor of Geology

November 2022

CURRICULUM VITAE

Department of Environmental Sciences
University of Toledo
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Timothy.Fisher@utoledo.edu
US & Canadian Citizenships

EDUCATION

- Ph.D. 1993 **University of Calgary**, Dept. of Geography (Geomorphology, Glaciology and Quaternary Research)
Dissertation: "Glacial Lake Agassiz: The northwest outlet and paleoflood spillway, N.W. Saskatchewan and N.E. Alberta" 184p.
- M.Sc. 1989 **Queen's University**, Dept. of Geography (Glacial Sedimentology and Geomorphology) Thesis:
"Rogen Moraine formation: examples from three distinct areas within Canada" 196p.
- B.Sc. 1987 **University of Alberta**, Dept. of Geography, Physical Geography (Honors) Honors thesis: "Debris entrainment in the subpolar glaciers of Phillips Inlet, Northwest Ellesmere Island" 51p.

ACADEMIC APPOINTMENTS

- 2019–2020 Provost Fellow, University of Toledo
- 2010–2020 Chair, Department of Environmental Sciences, University of Toledo
- 2016–2018 Interim Director of the Lake Erie Center, University of Toledo
- 2008–2009 Associate Chair, Department of Environmental Sciences, University of Toledo
- 2006–present Professor of Geology with tenure, University of Toledo
- 2005–present Graduate Faculty member, University of Toledo, full status
- 2003–2006 Associate Professor, tenure track, University of Toledo
- 2002–2003 Chair of the Department of Geosciences, Indiana University Northwest
- 1999–2003 Associate Professor of Geography with tenure, Indiana University Northwest
- 1999–2001 Chair of the Department of Geosciences, Indiana University Northwest
- 1998–2003 Faculty of the Indiana University Graduate School, associate status
- 1994–1998 Assistant Professor of Geography, tenure-track, Indiana University Northwest
- 1993–1994 Sessional Instructor, Red Deer College, Alberta, Canada
- 1993 Sessional Instructor, University of Calgary, Alberta, Canada

AWARDS

- Sabbatical leave, Autumn 2020
- Elected Fellow of the Geological Society of America, 2015
- Top ranking highest cited 2012–13 article (Fisher et al. 2012) for IF Year 2014, J of Paleolimnology, 2015
- Editor's Choice Award for the Higley et al. (2014) article in Canadian Journal of Earth Sciences V. 51
- Outstanding Faculty Research Award, University of Toledo, 2014
- Dion D. Raftopoulos Award for Outstanding Research, Sigma XI, University of Toledo Chapter, 2013
- Arts & Science Faculty Excellence Award, 2010
- Sabbatical leave Autumn, 2009
- Kohler International Travel Grant, University of Toledo, 2007, 2009, 2010
- Sabbatical leave for academic year to University of Canterbury, Christchurch, New Zealand, 2002
- Overseas Conference Fund Award, Office of International Affairs, Indiana University, 2001
- Outstanding Faculty Scholarship Award, Indiana University Northwest, 1999
- Teaching Excellence Recognition Award, Indiana University Northwest, 1998, 1999
- Finalist for Jerome H. Remick III award for best poster, GAC/MAC conference, 1996

PROFESSIONAL SERVICE

- Organized & co-chaired theme session: Dynamics of the Laurentide Ice Sheet, GSA annual meeting, Portland, OR
October 2021

Associate Editor, Canadian Journal of Earth Sciences, 2008–2020, managed 80+ manuscripts
 Section and Past Chair, North Central Section of the Geological Society of America, 2016–2018

- Responsible for division business and running annual business meeting

Program Co-chair, NE-NC Geological Society of America Joint Section Meeting
 Co-organized and ran meeting of >1325 attendees, Pittsburgh, PA 19–21 March, 2017
 GSA Special Paper 508 co-editor: Coastline and Dune Evolution along the Great Lakes, 2014

- With co-editor, solicited, managed, and edited 16 submitted articles with 14 accepted

Editorial Board, Quaternary Science Reviews, 2005–2012
 Physical Geography Associate Editor, Journal of Maps, 2005–2011
 Special Issue Editor, Quaternary Science Reviews, 2004
 Special Issue Editor, Quaternary International, 2001
 President of the Sub-Commission on Glaciation for the International Union for Quaternary Research (INQUA), 2003–2007
 Co-leader of MOCA (Meltwater routing and Ocean-Cryosphere-Atmosphere response) INQUA ,2007–11
 Organized & co-chaired theme session: Wind, Water, and Ice: The Geomorphology and Quaternary Geologic History of Great Lakes’ Coasts, GSA annual meeting, Minneapolis, MN, October 2011
 Organized & chaired theme session: The Quaternary History of the Great Lakes, NCNE-GSA annual Meeting, Pittsburgh, PA, April 2011
 Organized symposium: Living in Ruhe’s Shadow with Loess, Paleosols, and Tills: A Session in Honor of Bob Hall’s Contributions to Quaternary Science, with John Szabo for the North Central Geological Society of America Annual Meeting, Evansville, IN, 23–25 April 2008.
 Organized special session on glacial geology for the North Central Geological Society of America Annual Meeting, Akron, OH, 20–21 April 2006.
 Organized and co-convenor of glacial lake talks for the North Central Geological Society of America Annual Meeting, Minneapolis, MN 19, 20 May 2005.
 Member of the INQUA Commission on Terrestrial Processes, Deposits & History, (2003–2007)
 Secretary of the Commission on Glaciation for INQUA, (1999–2003)
 Member of the scientific committee for the 6th drumlin symposium, Poland, 2001
 Geological Society of America Campus Representative IUN, 1996–2003; UToledo, 2003–2010

PROFESSIONAL MEMBERSHIPS

Geological Society of America, 1990–present
 American Quaternary Association, 2003–2020
 International Quaternary Association, 2003–2015
 Ohio Academy of Science, 2014–2020
 American Geophysical Union, 2001–2013
 AAAS, 2003–2009
 Indiana Academy of Science, 2002–2004
 Sigma Xi, 2000–2010
 The Canadian Geomorphology Research Group, 1993–2010

TEACHING ACTIVITY

University of Toledo

EEES 1010	Introduction to Physical Geology
EEES 3100	Surficial Processes
EEES 4640	Applied Geology
EEES 4100/5100	Glacial/Advanced Glacial Geology
EEES 4200/5200	Quaternary/Advanced Quaternary Geology
EEES 6100	Glacial Stratigraphy & Geophysics
EEES 49/6980	Special Topics: Glacial & Quaternary Geology; Evidence for low lake levels; Styles of Deglaciation; Geology & Ecology of Global Climate Change
EEES 6960	Master’s Thesis Research

Indiana University Northwest

Geology 101	Introduction to Earth Sciences
Geology 102	Introduction to Earth Sciences - laboratory
Geography 110	Introduction to Human Geography
Geology 220/420	Regional Geology Field Trip
Geology 317	Field Methodology and Data Analysis
Geology 407, 8	Senior Science Project
Geology 410	Undergraduate Research in Geology
Geology 415	Principles of Geomorphology
Geology 435	Glacial and Quaternary Geology
Geology 460	Internship in Geology

Other Institutions, Associate Faculty

Geography 231	Introductory Physical Geography, Red Deer College
Geography 230	Introductory Geomorphology, Red Deer College
Geography 307	Landform Processes and Morphology, University of Calgary

Postdoctoral Advising

Dr. Xiuju Liu Paleoclimate reconstructions in the Lake Agassiz basin, 2011–13

Graduate Student Advising

MS Students (Principal Advisor):

Active:

Maureen Casaus. Geomorphic and chronologic assessment of glacial Lake Agassiz strandlines, Polk County, NW Minnesota. Dept. of Environmental Sciences, University of Toledo. 2021–.

Thomas Zych. Terrace chronologies of the Maumee Rivev in the western Lake Erie basin. Dept. of Environmental Sciences, University of Toledo. 2020–.

Completed (15):

Alex Sodeman. "Parallel Tunnel Channels: On the Stratigraphy and Formation of a New Variety of Tunnel Channel from the Huron-Erie Lobe." Dept. of Environmental Sciences, University of Toledo. 2018–20.

Thomas Valachovics. The chronology of glacial landforms near Mongo, Indiana—Evidence for the early retreat of the Saginaw Lobe. Dept. of Environmental Sciences, University of Toledo. 2017–2019.

Jonathan N. Luczak. "Chronology and Sedimentology of the Imlay Channel, Lapeer County, Michigan" Dept. of Environmental Sciences, Unpublished MS Thesis, University of Toledo, 136 p. 2016–18.

Mitchel Dziekan. "Origins of Basal Sediment within Kettle Lakes in Southern Michigan and Northern Indiana" Dept. of Environmental Sciences, University of Toledo. 2015–17.

Jennifer Horton. "The Deglacial Chronology of the Sturgis Moraine in South-Central Michigan and Northeast Indiana" Dept. of Environmental Sciences, University of Toledo. 2013–2015.

Joseph Blockland. "The Surficial Geology of Fulton County, Ohio: Insight into the Late Pleistocene-Early Holocene Glaciated Landscape of the Huron-Erie Lake Plain, Fulton County Ohio, USA" Dept. of Environmental Sciences, University of Toledo. 2010–2013

Kira Baca. "Environmental impacts on the development and dune activity of Oxbow Lake along the southwest coast of Lake Michigan at Saugatuck, Michigan USA" Dept. of Environmental Sciences, University of Toledo. 2010–2013

Brad Anderson. "Estimating the duration of ancestral Lake Erie using varve analysis at and above the Warren stage in northwest Ohio" Dept. of Environmental Sciences, University of Toledo. 2009–2011

Barbara Hanes. Paleo-storminess in the southern Lake Michigan basin, as recorded by eolian sand downwind of dunes. Dept. of Environmental Sciences, University of Toledo. 2008–2010

Mario Castaneda. "The Origin and Dynamics of Coastal Processes at Sand Point, Pictured Rocks National Lakeshore, MI". Dept. of Environmental Sciences, University of Toledo. 2007–2009.

Melinda Campbell. "Surficial geology mapping of the dune-dominated Whitehouse 7.5'Quadrangle". Dept. of Environmental Sciences, University of Toledo 2007–2009.

Brittany Austin. "Late Wisconsinan history and molluscan paleoecology of Stony and Silver Lakes, Oceana County, MI, USA" Dept. of Environmental Sciences, University of Toledo. 2004–2007.

Henry Loope. "Deglacial chronology and glacial stratigraphy of the western Thunder Bay Lowland, Northwest Ontario, Canada". Dept. of Earth Ecological & Environmental Sciences, University of Toledo. 2004–2006.
Amber Boudreau. "Constraining the Nipissing transgression in Lake Michigan". Dept. of Earth Ecological & Environmental Sciences, University of Toledo. 2003–2005.
Kelly Weyer. "Can eolian sand in lakes downwind of perched dunes be used as a proxy for paleo Lake Michigan levels?" Dept. of Earth Ecological & Environmental Sciences, University of Toledo. 2003–2005.

Ph.D. Committee Member

Brenda Leady, "Historic Patterns of Deposition and Biomagnification of Mercury in Selected Wetland Systems" Dept. of Environmental Sciences, University of Toledo. 2012–2013.
Amanda Haponiski, "Evolutionary, biogeographic, and population genetic patterns of walleye and other Sander: Relationships among continents, corridors, and spawning sites" Dept. of Environmental Sciences, University of Toledo. 2011–2013.
Todd Crail, "Hierarchy of spatial scales: Niche partitioning of darters (Pisces: Percidae) across a latitudinal and zoogeographic gradient". Dept. of Environmental Sciences, University of Toledo. 2008–2012
Andrew Kozlowski "Origin of the Central Kalamazoo River Valley, Southwestern Michigan USA". University of Western Michigan. 1999–2004.

MS Committee Member

Active:

Nana-Aboagye Otchere. Dept. of Environmental Sciences, University of Toledo. 2022–.
Carson Montz. "Diatom stratigraphy in West Lake Okoboji, IA" Dept. of Environmental Sciences, University of Toledo. 2021–.
George Okoko. "Increasing our understanding of anthropogenic eutrophication of West Lake Okoboji, IA using basin resolved biogenic silica and XRF proxy analysis". Dept. of Environmental Sciences, University of Toledo. 2021–.
Akinwale Ogunkoya, Groundwater models in the Toledo area. Dept. of Environmental Sciences, University of Toledo 2021–.

Examiner:

Kaleb Wagner, Ribbed moraines and subglacial geomorphological signatures of interior-sector palaeo-ice sheet dynamics, Dept. Earth Sciences, Brock University. January 2015.

Completed (6):

John Finnegan. Geophysical investigation of lineaments near Ottawa Lake, MI. 2016–19.
John Dilworth. Geophysical investigation of Ancestral Lake Erie strandlines. 2015–17.
Kent Walters, "Absence of the Younger Dryas Signal in a Section of the Southern Margin of the Laurentide Ice Sheet". Dept. of Geology, University of Cincinnati, 2012–13.
Abby Norton, Geology, UT, 2006–2009.
Amanda Haponiski, Ecology, UT, 2006–2008.
Stanislav Nikolov. Geography, UT, 2006.

Manuscript & Research Proposal Peer Reviews

Reviews since 2003 indicated

National Science Center Poland, 9/21. National Science Foundation (USA) 2/06, 3/06, 3/06, 10/06, 4/07, 4/07, 4/07, 10/08, 12/08, 10/09, 10/09, 10/11, 10/11, 4/12, 10/12, 12/12, 4/14, 7/16, 8/21

NSERC, Natural Sciences and Engineering Research Council (Canada), 12/04, 12/04, 12/06, 12/06, 12/08, 12/10, 12/10, 1/12, 1/13, 1/14, 1/15, 1/16

NERC, Natural Environmental Research Council (United Kingdom)

NGS, National Geographic Society, 10/13

PRF, Petroleum Research Fund (American Chemical Society), 2/06, 3/08, 2/14

The American Midland Naturalist, 3/07; Annals of Glaciology; 7/19, Basin Research, 10/09

Boreas, 8/03, 10/03, 4/08, 8/08, 12/11, 7/12, 1/14, 5/14, 10/14, 8/15, 1/16, 9/17, 11/17, 9/18, 5/20, 2/21, 5/21

Canadian Journal of Earth Sciences, 6/03, 9/04, 2/05, 10/10, 11/10, 8/11, 8/11, 7/12, 7/12, 3/13, 9/14, 1/15, 12/19

Catena, 9/18, 2/19, 11/20, 5/22 Earth and Planetary Science Letters, 11/13, 3/13, 1/20, 4/20, 10/20

Earth Surface Processes and Landforms, 10/09, 2/11, 2/17; Earth Sciences History, 4/14

Geology, 11/04, 3/05, 2/07, 4/07, 10/09, 12/09, 6/12, 5/14, 5/17, Geoscience Canada, 2/16

Geological Society of America Bulletin; Géographie Physique et Quaternaire, 9/05
Geomorphology, 3/04, 6/21, 7/22, 10/22, 11/22 Geosphere, 8/18; Great Lakes Geographer, 8/06;
Indiana Academy of Sciences
The Holocene, 6/05, 11/07, 2/12, 9/15, 12/15, 1/16. Journal of Environmental Management, 6/11
Journal of Great Lakes Research, 12/06, 4/17, 10/19, 4/21, 4/21, 5/21, 6/21, 8/21
Journal of Coastal Research, 4/11
Journal of Maps, 9/05, 11/05, 11/06, 2/07, 6/07, 7/07, 9/07, 5/08, 5/08, 9/08, 9/08, 10/08, 8/09, 12/09, 4/10, 5/10,
10/10, 11/10, 1/11, 5/11, 9/11, 1/12, 10/18, 3/22
Journal of Geology, 6/22 Journal of Paleolimnology, 12/10; 12/10, 8/11, 8/12, 2/15, 8/16
J. Quaternary Science, 1/10; 3/22
Megaflooding on Earth and Mars, Cambridge University Press (1 chapter, 2007)
Molecular Ecology, 9/07; Natural Hazards, 11/05, 3/06
Nature: Communications Earth & Environment, 4/20, 7/20, 3/21
Ohio Supercomputer Center Grant 2/08
Palaeogeography, Palaeoclimatology, Palaeoecology, 9/07
Proceedings of the Seventh International Conference on Permafrost
Quaternary International, 9/11
Quaternary Research, 3/07, 10/07, 11/09, 12/16, 11/17, 9/19, 2/21
Quaternary Science Reviews, 9/05, 7/09, 12/09, 12/10, 1/11, 5/12, 1/13, 3/14, 9/14, 12/14, 8/18, 12/18
Sedimentary Geology, 2/10, 6/14

Invited Talks

- Constraining lake level history of glacial Lake Agassiz. Miami University, Oxford OH, September 19, 2022.
- A status update on our understanding of glacial Lake Agassiz. North Dakota Geology Society. Bismarck, ND, October 27, 2021. Remote
- The glacial and post-glacial land forming events of northwestern Ohio. Ohio Biological Survey Natural History Conference, Toledo Zoo. February 29, 2020.
- Geology of the Great Black Swamp, northwest Ohio. Bowling Green State University Black Swamp Project Workshop. August 16, 2018.
- Holocene history of coastal sand dunes along the western Michigan coastline. Department of Earth and Environmental Sciences, Gravenor Lecture Series, University of Windsor. November 11, 2016.
- Coastal Sand Dunes in the Great Lakes Region. Lake Erie Center Speaker Series. 2016.
- How Coastal Sand Dunes in the Great Lakes Region Fulfill Our Needs. Earth Science Week Speaker, Grand Valley State University, Grand Rapids, MI. October 16, 2015.
- Drainage from glacial Lake Agassiz: Did it cause rapid climate change? University of Wisconsin–Eau Claire, Earth Science symposium. April 24, 2015.
- Drainage from glacial Lake Agassiz: Did it cause rapid climate change? Department of Geography & Planning Colloquium series, UT. February 20, 2015.
- Glacial Lake Agassiz: A reassessment of its role as the smoking gun for triggering abrupt climate changes at the close of the last ice age. Sigma Xi Dion D. Raftopoulos Award for Outstanding Research, Colloquium, University of Toledo. October 9, 2013.
- Glacial Lake Agassiz: A reassessment of its role as the smoking gun for triggering abrupt climate changes at the close of the last ice age. Michigan State University, Geography Department. February 15, 2013.
- Glacial Lake Agassiz: A reassessment of its role as the smoking gun for triggering abrupt climate changes at the close of the last ice age. University of Western Ontario, Earth & Environmental Sciences. December 2, 2011.
- Statistical Analysis and Modeling of Heterogeneous Geologic Data. Part 1: Are there climate signals in eolian sand in lake sediment? CNSM Interdisciplinary Colloquium. UT November 4, 2011.
- Using eolian sand and dunes in the Oak Openings and coastal Michigan as proxies for paleoclimate, Department of Geology, Bowling Green State University. February 2011.
- Testing the role of glacial Lake Agassiz for explaining abrupt climate changes at the end of the last ice age, Department of Physics and Astronomy. UT February 2010.

- Reining-in Lake Agassiz's role in Younger Dryas climate change—or is it just a pause before a kick in the ribs? Constraining the glacial Lake Agassiz meltwater routing history by dating ice margins and outlets. Tulane University. January 2010.
- Reconstructing past water levels in the Great Lakes. Indiana University NW. 1 April 2009.
- Reconstructing past water levels in the Great Lakes. College of Wooster. 26 March 2009.
- What was the linkage between glacial Lake Agassiz overflow and climate change? Natural Sciences Colloquium at University of Michigan Dearborn. 21 November 2008.
- Why Geography Matters: glacial Lake Agassiz role in abrupt climate change. University of Wisconsin-Eau Claire. December 2007.
- Dunes, Lakes, Meltwater Routing and Climate Change: So much to do with so little time. Calvin College, Grand Rapids Michigan, November 20, 2007.
- The Lake Evolution II—The low phase of glacial Lake Agassiz. Comer Climate Change Conference, September 14, 2007.
- Timing of meltwater routing through glacial Lake Agassiz. Ormen meeting, Bergen Norway. September 11, 2007.
- Glacial evolution of the Great Lakes region. Plant Biology & Botany Joint Congress, Chicago, IL. July 7–11, 2006.
- Deglaciation in the Lake Agassiz basin. Lamont Doherty Labs, Columbia University. June 2006.
- Glacial Lake Agassiz and abrupt climate change: just what is the relationship? Department of Geology, University of Akron. October 6, 2006.
- Glacial Lake Agassiz: a super-sized lake with probable connections to climate change. Department of Geology, Bowling Green State University. October 14, 2004.
- A Saturated View of the Saginaw Lobe: The Meltwater Megaflood Hypothesis. Department of Geology, Michigan State University, Lansing, MI. October 7, 2004.
- The ups and downs of Lake Michigan as recorded in Silver Lake's sediment cores. Department of Geology, Hope College, MI. January 23, 2004.
- A big lake's record, recorded in a little lake's sediment at Little Sable Point, Michigan. Department of Biological, Geological, and Environmental Sciences, Cleveland State University. October 10, 2003.
- Fact or Fiction: Large-Scale Subglacial Meltwater Floods from South-Central Michigan. T. Mylan Stout Lecture Series, Department of Geosciences, University of Nebraska. January 19, 2001.
- Elucidating the outlet chronologies of Lake Agassiz and their relationship to climate changes. Department of Geology, Indiana University-Purdue University. January 26, 2001.
- Chronology and history of glacial Lake Agassiz. Department of Geology, Carleton College, Northfield, MN. January 21, 2000.
- Origins of boulder beds, tunnel channels, and drumlins in south central Michigan: Department of Geology, University of Illinois – Chicago. November 11, 1999.
- Subglacial meltwater sculpting and modifications of south-central Michigan. Department of Geology, University of Western Michigan, Kalamazoo, MI. November 15, 1999.
- The new northwest outlet of glacial Lake Agassiz - the associated catastrophic flood and possible climatic influences in the Arctic basin. Department of Geological Sciences, Indiana University Bloomington. February 20, 1996.
- A discussion of glacial Lake Agassiz. Lecture presentation to the glacial geology class, Northeastern Illinois University, Chicago, IL. November 4, 1996.
- Glacial Lake Agassiz: New insight into the dynamics of rapid climate change in the Northern Hemisphere. Indiana University-Purdue University, Fort Wayne, IN. November 11, 1996.

RESEARCH ACTIVITY

Research Grants

Awarded:

Ohio Department of Transportation (\$400,259) Investigation of Pavement Performance in Historically Under-Performing Regions. CO-PI. 10/5/2022–10/4/2024.

Ohio Sea Grant (\$9999). An Exceptionally Low Lake Level in the Lake Erie Basin ca. 300 Years Ago. (PI) 2021–2022.

United States Geological Survey EDMAP (\$17,500). Surficial Geology Mapping of Glacial Lake Agassiz Strandlines, Polk County, Minnesota (PI) 2020–2021.

United States Geological Survey EDMAP (\$17,500). Surficial Geology Mapping of the Burnside, MI 7.5 Minute Quadrangle (PI) 2017–2018.

USGS Mapping Coalition (\$6791) Moraine dating with IGS to determine age of deglaciation in northern Indiana, 5/15/15–5/14/16.

National Geographic Society (\$20,000) PI. Exploring the paleoenvironmental conditions triggering coastal dune activity along the Lake Michigan shoreline, 2015–16.

USGS Mapping Coalition (\$7350) Lake Coring with IGS to determine age of the Sturgis Moraine, 9/30/13–9/29/14.

United States Geological Survey EDMAP (\$5662). Surficial Geology Mapping of the Delta, Ohio, 7.5 Minute Quadrangle (PI) co-PI D. Stierman, 05/01/11–04/30/12. G11AC20135.

National Science Foundation (\$2,468,505) Graduate Teaching Fellows in STEM High School Education: An Environmental Science Learning Community at the Land-Lake Ecosystem Interface. Co-PI with PI Carol Stepien, Co-PI's Daryl Moorhead, Thomas Bridgeman, and Cyndee Gruden, all from UT, 15/01/08–04-30-13. DGE-0742395.

U.S. Geological Survey (\$18,000) (P.I.) Determining the origin and dynamics of coastal processes of Sand Point at Pictured Rocks National Lakeshore, for 2007–2008.

U.S. Department of Agriculture (\$511,000) Function of a mitigation wetland at Maumee Bay State Park, Lucas County, Ohio. co-PI with Dwyer, D. (P.I.) and Co-PI D. Krantz, 2007–2008.

Comer Science and Education Foundation (\$22,000) Boulder sampling in northwestern Ontario. PI 2007.

OBOR Research Challenge (\$4000) University of Toledo: Deglaciation chronology of the Des Moines Lobe – implications for ice sheet dynamics and climate change. PI. 2006.

EDMAP (\$11,400) co-PI. Surficial Geology of the Oak Openings Region, Whitehouse Quadrangle, Lucas County, Ohio. 2006–2007. co-PI with Martin-Hayden PI & Stierman, D. UT.

National Science Foundation (\$60,000) Co-PI. Collaborative Research: Deglaciation chronology of the Des Moines Lobe – implications for ice sheet dynamics and climate change, 2006–2007. With Thomas Lowell, University of Cincinnati.

Comer Science and Education Foundation (\$161,929) co-PI. Retreat of the southwestern and western margins of the Laurentide Ice Sheet and the volume of glacial Lake Agassiz. With Dr. Tom Lowell, U of Cincinnati, 2005–2007.

INQUA Project (\$3000) co-PI. Large-Scale Meltwater Processes & Products. With Dr. Andrew Russell, University of Newcastle on Tyne, England, 2004–2007.

Illinois-Indiana Sea Grant (\$119,983) PI. Reconstructing Low Lake Levels of Lake Michigan, 2004–2006.

Comer Science and Education Foundation (\$250,000) co-PI. Assessing a Possible Cause of Abrupt Climate Change: Timing of Glacial Lake Agassiz Drainage. With Dr. Tom Lowell, U of Cincinnati, 2004–2006.

National Science Foundation (\$230,000) PI. Elucidating both the northwest extent of glacial Lake Agassiz, and the northwest and south outlet chronologies, 1999–2002.

Indiana University, Research Project Initiation Expenses Grant (\$500) PI. Determining the time of eolian activity from sediment cores, near Grand Marais, MI, 1999.

Indiana University, Research Support Fund (\$14,500) PI. Micromorphology of glacial sediment: a technique to determine sediment genesis in glacial sedimentary environments, 1998.

Center for Earth and Environmental Research at IUPUI (\$2600) PI. Research Summer Faculty Fellowship, 1997.

National Geographic Society (\$17,240) PI. Determining the timing of Lake Agassiz's outlets by radiocarbon dating, 1996–97.

Indiana University Northwest (\$20,000) Summer Faculty Fellowship. For research conducted on glacial landforms in southern Michigan, 1995–98.

Indiana University Northwest (\$3400). Grant-in-Aid of Research. PI. Funds to support field work and research on glacial landforms in southern Michigan, 1996–98.

Indiana University, Intercampus Research Fund (\$9805) co-PI. Direct dating of deposits to determine the chronology and direction of drainage of glacial Lake Agassiz. With Dr. C. Souch, IUPUI, 1997–96.

Indiana University, Research Support Fund (\$16,000) PI. Abnormal glaciolacustrine sedimentation rates in glacial Lake Calgary caused by jökulhlaup style flooding from the Bow Valley Glacier approximately 12,000 years ago; and a reconnaissance survey along the Red River valley, ND, MN to examine glacial Lake Agassiz features and deposits, 1995.

Indiana University, Research Project Initiation Expenses Grant (\$500) PI. The Branch County drumlin field, southern Michigan, 1995.

Geological Society of America Research Grant (\$1300) Glacial Lake Agassiz: The N.W. outlet and paleoflood in northern Alberta and Saskatchewan, 1992.

Department of Indian and Northern Affairs 'Northern Science Training Grant'. (\$17,789) Glacial Lake Agassiz: The N.W. outlet and paleoflood in northern Alberta and Saskatchewan, 1990–92.

Thesis Research Grant, University of Calgary (\$1500) Glacial Lake Agassiz: the N.W. outlet and paleoflood in northern Alberta and Saskatchewan, 1990.

PUBLICATIONS

Google Scholar: Citations–2767, h-index–30, i10-index–56

Google Scholar link at <http://www.utoledo.edu/nsm/envsciences/faculty/fisher.html>

In preparation (*-student):

*Dilworth, J.R., Krantz, D.E., **Fisher, T.G.**, Lepper K.E. Investigations of glacial Lake Arkona coastal features in the western Lake Erie Basin, USA. *Geomorphology*.

Loope, H.M., Loope, W.L., Jol, H.M., **Fisher, T.G.**, Breckenridge, A., Goble, R.J. Legacy of a transgression: a Holocene history of high bluffs, terraces, and dunes along the southeastern margin of Lake Superior with reference to variation in the Lake's water plane. *Geological Society of America Bulletin*.

*Ogunkoya, A.O., Martin-Hayden, J., **Fisher, T.G.**, Doro, K.O. An improved conceptual hydrogeological model of a post-glacial aquifer system using geophysical and geological datasets, NW Ohio, USA. *Journal of Hydrology: Regional Studies*.

In review

Chartolani, G., Aden, D.J., Sasowsky, I.D., Parrick, B.D., **Fisher, T.G.**, 2023. Morphology of sinkholes on an extensive glaciated karst plain, Bellevue, Ohio, USA. Conference Proceedings. Conference on Sinkholes and the Engineering and Environmental Impacts of Karst. University of South Florida—Tampa, FL. March 27–31.

In press

Published, Peer-Reviewed Articles (*—student):

79. **Fisher, T.G.**, Breckenridge, A., 2022. Relative lake level curve of glacial Lake Agassiz spanning the Herman to Campbell levels. *Quaternary Science Reviews* 294, 107760.

78. *Luczak, J.N., **Fisher, T.G.**, Lepper, K., 2022. Chronology and stratigraphy of the Imlay channel in Lapeer County, Michigan, USA. *Canadian Journal of Earth Sciences* 59: 59–70. <https://doi.org/10.1139/cjes-2021-0039>.

77. Lowell, T.V., Kelly, M.A., Howley, J.A., **Fisher, T.G.**, Barnett, P., Schwartz, R., Zimmerman, S., Norris, N. Malone, A., 2021. Near-Constant Retreat Rate of a Terrestrial Margin of the Laurentide Ice Sheet during the Last Deglaciation. *Geology* 49(12): 1511–1515 <https://doi.org/10.1130/G49081.1>

76. **Fisher, T.G.**, DeVries-Zimmerman, S., Hansen, E.C., Wolin, J., Lepper, K., Spanbauer, T.L. 2021. Drought coincident with aeolian activity in a Great Lakes coastal dune setting during the Algoma Phase (3.1–2.4 ka), southwest Michigan. *Journal of Great Lakes Research* 47(6): 1468–1484. <https://doi.org/10.1016/j.jglr.2021.04.017>

75. *Sodeman, A., *Wolfe, E., **Fisher, T.G.**, Becker, R., Martin-Hayden, J.M., Loope, H. 2021. Parallel tunnel channels of the Huron-Erie Lobe of the Laurentide Ice Sheet: a variation of tunnel channels with implications on lobe history and subglacial meltwater dynamics. *Geomorphology*. <https://doi.org/10.1016/j.geomorph.2021.107726>

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Conference Presentations and Abstracts

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2023

Chartolani, G., Aden, D.J., Sasowsky, I.D., Parrick, B.D., **Fisher, T.G.**, 2023. Morphology of Large Sinkholes on an Extensive Glaciated Karst Plain, Ohio USA. 2023. Conference on Sinkholes and the Engineering and Environmental Impacts of Karst. University of South Florida—Tampa, FL. March 27–31.

2022 (4)

*Zych, T.J., Fisher, T.G., 2022. The Lowest Terraces of The Maumee River: Perspectives from Side cut Metropark. Green Ribbon Initiative Science Summit. Nov. 11. Toledo, OH.

*Okoko, G., Efemena, E., Adebayo, M., Casaus, M., Otchere, E., Ogunkoya, A., Ogundeji, S., Doro, K.O., **Fisher, T.G.** 2022. Using geophysical methods to differentiate between till and glacial rhythmite sediment at Wildwood Metropark, Toledo, Ohio. Geological Society of America Annual Meeting of the North-Central section, Cincinnati, OH, April 7–8, Abstracts with Programs. Vol. 54, No. 4.

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*Sodeman, A.D., **Fisher, T.G.**, Loope, H.M. 2021. Reexamining the deglaciation of the Huron Erie lobe through subglacial meltwater-derived landforms in Indiana, USA. Geological Society of America annual meeting in Portland OR, October 10–13. Abstracts with Program V53, no. 6. Invited.

- Breckenridge, A., **Fisher, T.G.**, 2021. Two unusual sets of giant dunes created by catastrophic ice-dam failure and glacial lake drainage into a proglacial lake, upper peninsula of Michigan, USA. Geological Society of America annual meeting in Portland OR, October 10–13. Abstracts with Program V53, no. 6.
- *Luczak, J.N., **Fisher, T.G.** 2021. Stratigraphy and chronology of the Imlay channel in Lapeer County, Michigan, USA. Geological Society of America annual meeting in Portland OR, October 10–13. Abstracts with Program V53, no. 6.

2020 (1)

- *Wolfe, E., *Sodeman, A.D., **Fisher, T.G.** 2020. Morphological connection between paired tunnel channels, buried tunnel channels, and subaerial channels of the Huron-Erie Lobe, across the Indiana, Michigan and Ohio tristate area. Geological Society of America Virtual Annual Meeting of the North-Central section, Abstracts with Programs. Vol. 52, No. 5, ISSN 0016-7592 doi: 10.1130/abs/2020NC-347709.

2019 (5)

- *Samsen, B., Antinao, J.L. Loope, H.M. **Fisher, T.G.** 2019. Saginaw lobe glacial stratigraphy preserved in a deep (67.1 m) rotosonic core, northern Indiana. Geological Society of America annual meeting in Phoenix, AZ, September 22–25. Abstracts with Program V51, no. 5.
- *Sodeman, A.D., **Fisher, T.G.**, Becker, R.H. 2019. On the stratigraphy and formational processes of unique subglacial landforms in NE Indiana, SE Michigan, and NW Ohio. Geological Society of America annual meeting in Phoenix, AZ, September 22–25. Abstracts with Program V51, no. 5.
- *Wolfe, E., *Sodeman, A.D., **Fisher, T.G.** 2019. Evidence for connection between a unique subglacial landform and a buried tunnel channel of the Huron-Erie Lobe, NE Indiana. Geological Society of America annual meeting in Phoenix, AZ, September 22–25. Abstracts with Program V51, no. 5.
- *Sodeman, A.D., **Fisher, T.G.**, Becker, R. 2019. Model for formation of unique subglacial landforms in Indiana, Ohio and Michigan associated with the Huron–Erie lobe. International Glaciological Society, Glacier Erosion and Sedimentation Workshop. Madison, WI, May 12–17.
- *McCormick, M., *McGuinness, S., *Sodeman, A., Krantz, D., Pankrantz, H., **Fisher, T.** 2019. Discontinuous Rhythmite Deposition in Ancestral Lake Erie: Quantifying Shoreline Features in Wildwood Metropark, Toledo, OH. Toledo Metroparks Forum, Toledo February 9.

2018 (10)

- *Luczak, J.N., **Fisher, T.G.**, *Samsen, B. History and chronology of Lake Maumee’s Imlay channel, Michigan. 2018. Legacy of a transgression: shoreline behavior along the southeastern margin of the Superior Basin in response to Holocene lake-level change. Geological Society of America annual meeting in Indianapolis, IN, November 4–7. Abstracts with Program V50, no. 6.
- Loope, W.L., Loope, H., Jol, H.M., **Fisher, T.G.**, Goble, R.J. 2018. Legacy of a transgression: shoreline behavior along the southeastern margin of the Superior Basin in response to Holocene lake-level change. Geological Society of America annual meeting in Indianapolis, IN, November 4–7. Abstracts with Program V50, no. 6.
- *Valachovics, T.R., **Fisher, T.G.**, Antinao, J.L., Loope, H.M., Monaghan, G. 2018. OSL constraints on glacial and post glacial landforms of terrain previously occupied by the Saginaw Lobe in northern Indiana and southern Michigan. Geological Society of America annual meeting in Indianapolis, IN, November 4–7. Abstracts with Program V50, no. 6.
- *Sodeman, A.D., **Fisher, T.G.**, Becker, R.H. implications for Huron-Erie lobe deglaciation from unique subglacial meltwater features in Indiana and Ohio. Geological Society of America annual meeting in Indianapolis, IN, November 4–7. Abstracts with Program V50, no. 6.
- *Sodeman, A. **Fisher, T.G.**, Becker, R. 2018. Evidence for unique subglacial meltwater features in Indiana and Ohio: Implications for Huron-Erie Lobe deglaciation and meltwater drainage mechanisms. AGU fall meeting, Washington. C51G-1143.
- *Towell, A., *Valachovics, T.R., *Dehm, D., *Samsen, B., *Breitner, S., **Fisher, T.G.**, Krantz, D.E., Stierman, D. 2018. Geophysical investigation of a spit complex in glacial Lake Maumee. Geological Society of America North-Central Annual Meeting, Ames, IO April 15-17, Abstracts with Programs. Vol. 50, No. 2.
- *Sodeman, A.D., **Fisher, T.G.**, Becker, R.H. 2018 Evidence for tunnel channels from Huron-Erie lobe in northeastern Indiana. Geological Society of America North-Central Annual Meeting, Ames, IO April 15-17, Abstracts with Programs. Vol. 50, No. 2.
- *Samsen, B., *Luczak, J.N., **Fisher, T.G.** 2018. Estimating paleoflow through Lake Maumee’s Imlay Channel. Geological Society of America North-Central Annual Meeting, Ames, IO April 15-17, Abstracts with Programs. Vol. 50, No. 2.
- *Luczak, J.M., **Fisher, T.G.**, *Samsen, B. 2018 Sedimentology and chronology of fill in Lake Maumee’s Imlay Channel. Geological Society of America North-Central Annual Meeting, Ames, IO April 15-17, Abstracts with Programs. Vol. 50, No. 2.
- *Dilworth, J., Krantz, D., **Fisher, T.G.**, Stierman, D. Analysis and chronology of glacial Lake Arkona in the western Lake Erie basin, USA. Geological Society of America North-Central Annual Meeting, Ames, IO April 15-17, Abstracts with Programs. Vol. 50, No. 2.

2017 (6)

- *Luczak, J.N., **Fisher, T.G.**, *Samsen, B. Preliminary map of the surficial geology of the Burnside 7.5 Minute Quadrangle, Lapeer County, Michigan. Geological Society of America Annual Meeting in Seattle, WA (22–25 October).
- *Finnegan, J.P., *Gentner, T., *Armstrong, E., *Luczak, J., Krantz, D.E., **Fisher, T.G.**, Stierman, D. 2017. Geophysical investigation of Magee Marsh, Lucas County, Ohio: evidence of a prograding barrier spit. Geological Society of America Joint NE and NC Annual Meeting, Pittsburgh, PA March 19–21, Abstracts with Programs. Vol. 49, No. 2.

- *Dilworth, J.R., Krantz, D., **Fisher T.G.**, Lepper, K. 2017. Analysis and chronology of glacial Lake Arkona in the western Lake Erie basin, USA. Geological Society of America Joint NE and NC Annual Meeting, Pittsburgh, PA March 19–21, Abstracts with Programs. Vol. 49, No. 2.
- *Finnegan, J.P., *Gentner, T., *Armstrong, E., *Luczak, J., Krantz, D.E., **Fisher, T.G.**, Stierman, D. 2017. Analysis of erosional features in the northwest corner of the Ottawa Lake basin, Monroe County, Michigan. Geological Society of America Joint NE and NC Annual Meeting, Pittsburgh, PA March 19–21, Abstracts with Programs. Vol. 49, No. 2.
- Lepper, K., Argyilan, E.P., **Fisher, T.G.** 2017. Pushing the limits of OSL application to Great Lakes costal deposits: how young and how small? Geological Society of America Joint NE and NC Annual Meeting, Pittsburgh, PA March 19–21, Abstracts with Programs. Vol. 49, No. 2.
- *Dziekan, M.R., **Fisher, T.G.**, Loope, H.M., McCarthy, F.M.G. 2017. Origins of basal sediment within kettle lakes in southern Michigan and northern Indiana: climate change, groundwater fluctuations, or trash? Geological Society of America Joint NE and NC Annual Meeting, Pittsburgh, PA March 19–21, Abstracts with Programs. Vol. 49, No. 2.

2016 (8)

- Lowell, T., Kelly, M., Fisher, T., Barnett, P., Howley, J., Zimmerman, S. Retreat of the southwest Labrador Sector of the Laurentide Ice Sheet during the last termination. American Geophysical Union Annual Meeting, San Francisco, CA December.
- *Alme, K.C., Lepper, K., *Towell, A., Fisher, T.G., OSL evaluation of dune-sourced sand lenses from Gilligan Lake, Michigan, USA. Geological Society of America Annual Meeting in Denver, CO (25–28 September).
- *Dziekan, M.R., Fisher, T.G., *Towell, A., Loope, H.M. 2016. Characteristics of basal trash layers within kettle lakes in southern Michigan and north-east Indiana. Geological Society of America Annual Meeting in Denver, CO (25–28 September).
- *Dziekan, M. R., **Fisher, T.G.**, Krantz, D.E., Stierman, D.J. 2016. Stratigraphy of a rimmed ridge plateau, Sturgis Moraine, northeastern Indiana. Geological Society of America North-Central Section, April 18–19, Champaign, IL. Abstracts with Programs. Vol. 48, No. 5 doi: 10.1130/abs/2016NC-275361.
- Lowell, T.V., **Fisher, T.G.**, Lepper, K. 2016. Lake Agassiz is a conundrum - should the chronology be likewise? Geological Society of America North-Central Section, April 18–19, Champaign, IL. Abstracts with Programs. Vol. 48, No. 5 doi: 10.1130/abs/2016NC-275361.
- *Dziekan, M. R., **Fisher, T.G.**, Horton, J., Loope, H.M. 2016. Melt-out time lag, and its impact on assessing ages of Quaternary events. Geological Society of America North-Central Section, April 18–19, Champaign, IL. Abstracts with Programs. Vol. 48, No. 5 doi: 10.1130/abs/2016NC-275361.
- Loope, W.L., Loope, H.M., Jol, H.M. **Fisher, T.G.**, Goble, R.J. 2016. Early to mid-Holocene shoreline behavior associated with the Nipissing phase, southeastern Lake Superior. Geological Society of America North-Central Section, April 18–19, Champaign, IL. Abstracts with Programs. Vol. 48, No. 5 doi: 10.1130/abs/2016NC-275361.
- Jol, H.M., Loope, W.L. **Fisher, T.G.**, *Morrison, S., Johnston, J.W., Moore L.J., Smith, D.G. 2016. Ground penetrating radar studies along the present and past coastlines of the Great Lakes: an overview. Geological Society of America North-Central Section, April 18–19, Champaign, IL. Abstracts with Programs. Vol. 48, No. 5 doi: 10.1130/abs/2016NC-275361.

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