

Zachary A. Musselman

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Education

- Ph.D., Geography. University of Kentucky, Lexington, Kentucky. (2006).
Dissertation: Tributary Response to the Lake Livingston Impoundment – Lower Trinity River, Texas.
Jonathan D. Phillips, Advisor.
- M.S., Geology. Texas Christian University, Fort Worth, Texas. (2001).
Thesis: Geomorphology of the Rosillos Mountains, Brewster County, Texas.
Michael C. Slattery, Advisor.
- B.S., Geology. Bloomsburg University, Bloomsburg, Pennsylvania. (1999).
Thesis: A Test of a Common Super-Resolution Algorithm.
Michael K. Shepard, Honors Advisor.

Professional Experience

- Instructor, Department of Geography, University of Kentucky. May 2006-Present.
- Teaching Assistant, Department of Geography, University of Kentucky. June 2004-December 2005.
- Research Assistant, Department of Geography, University of Kentucky. January 2002-June 2004.
- Head Graduate Teaching Assistant, Department of Geology, Texas Christian University. August 2000-December 2001.
- Environmental Intern II, North Central Texas Council of Governments. Arlington, Texas. May-August 2001.
- Graduate Teaching Assistant, Department of Geology, Texas Christian University. January 2000-May 2000.
- Computer Cartographer, Department of Geology, Texas Christian University. August 2000-December 2001.
- Geotechnician, Geoscience Data Management. Plano, Texas. May-August 2000.
- Research Assistant, Department of Geology, Bloomsburg University. July 1998-May 1999.

Teaching Experience

- Earth's Physical Environment* (100 Level), Department of Geography, University of Kentucky.
Summer 2004; Fall 2004; Spring 2005; Summer 2005; Fall 2005; Summer 2006.
- Understanding the Earth – Lab* (100 Level), Department of Geology, Texas Christian University.
Spring 2000; Fall 2000; Spring 2001; Summer 2001; Fall 2001.
- UK 101 – Academic Orientation*, University of Kentucky.
Guest Lecture (panel discussion) – Fall 2004; Fall 2005.
- Fluvial Forms and Processes* (400 level), Department of Geography, University of Kentucky.
Guest Lecture – Spring 2004.

Publications

- Phillips, Jonathan D., Slattery, Michael C., Musselman, Zachary A. 2005. Channel Adjustments of the Lower Trinity River, Texas, Downstream of Livingston Dam. *Earth Surface Processes and Landforms*, 30, 1419-1439.
- Phillips, Jonathan D., Slattery, Michael C., Musselman, Zachary A. 2004. Dam-to-Delta Sediment Inputs and Storage in the Lower Trinity River, Texas. *Geomorphology*, 62, 17-34.
- Musselman, Zachary A. 2003. Biography of Grove Karl Gilbert. *The Compass of Sigma Gamma Epsilon*, 77 (2), 31-34.
- Phillips, Jonathan D., Musselman, Zachary A. 2003. The Effect of Dams on Fluvial Sediment Delivery to the Texas Coast. *Proceedings of Coastal Sediments*, American Society of Civil Engineers, New York, 1-14.

Cartographic Publications (provided maps and/or figures)

- Hanson, R.E. 2003. Proterozoic geochronology and tectonic evolution of southern Africa, in Yoshida, M., Windley, B.F., and Dasgupta, S. (eds.), *Proterozoic East Gondwana: supercontinent assembly and breakup*: Geological Society of London Special Publication 206, p. 428-463.
- Phillips, J.D. 2003. Alluvial Storage and the Long-term Stability of Sediment Yields. *Basin Research*, 15, 153-163.
- Phillips, J.D. 2003. Sediment Retention in Stream Corridors of the Lower Trinity River Basin, Texas. Final Report—Year 1, Texas Water Development Board, 1-25.

Presentations

- Musselman, Zachary A. *Tributary Reactions to the Damming of a Coastal Plain River in Southeastern Texas*. Geological Society of America, Southeastern Section Meeting. Knoxville, Tennessee. 2006.
- Musselman, Zachary A. *Nonlinearity and Complexity Illustrated Within a Coastal Plain Fluvial System*. The 2006 Meeting of The Association of American Geographers. Chicago, Illinois. 2006.
- Musselman, Zachary A. *Getting Our Boots Muddy – What I taught last semester*. Colloquium, Department of Geography. University of Kentucky. 2005.
- Musselman, Zachary A., Nordberg, Viva G., Adams, Kristin R. *Weathering the Bridge: A Review of Micro- and Macro-scale Forms Found in and Around Natural Bridge Resort State Park*. 35th Binghamton International Geomorphology Symposium, Weathering and Landscape Evolution. Lexington, Kentucky. 2004.
- Slattery, Michael C., Phillips, Jonathan D., Musselman, Zachary A. *Dam-To-Delta Sediment Inputs, Storage, and Delivery in the Lower Trinity River, Texas*. 32nd International Geological Congress. Florence, Italy. 2004
- Musselman, Zachary A., Phillips, Jonathan D. *Channel and Floodplain Changes on the Trinity River Between Livingston Dam and the Trinity Bay, Texas*. 33rd Binghamton International Geomorphology Symposium, Dams and Geomorphology. Bloomsburg, Pennsylvania. 2002.
- Busbey, Arthur B., Bittick, Susan, Dennie, Devin, Kirkland, Rodney, Murray, Jill, Musselman, Zachary, Breyer, John A., Hanson, Richard, Morgan, Ken M., Slattery, Michael. *Summary of recent studies in the Rosillos Mountains, Brewster Co., Texas*. Geological Society of America, South-Central Section Meeting. Alpine, Texas. 2002.
- Musselman, Zachary A. *What I Did This Summer*. Colloquium, Department of Geography. University of Kentucky. 2002.
- Musselman, Zachary A., Slattery, Michael C. *Geomorphology of Rosillos Mountains, Brewster County, Texas*. Geological Society of America, Annual Meeting, A Geo-Odyssey. Boston, Massachusetts. 2001.

Busbey, Arthur B., Dennie, Devin P., Donovan, R. Nowell, Musselman, Zachary A. *Enhancing The Lab Component for Non-Science Students - Fingal, Mud Cracks, Mendelssohn and the Triple Junction*. Geological Society of America, Rocky Mountain and South-Central Sections Joint Meeting. Albuquerque, New Mexico. 2001.

Musselman, Zachary A., Busbey, Arthur B., Slattery, Michael C. *Geomorphology of the Star Creek Alluvial Fan, Rosillos Mountains, Brewster County, Texas*. Geological Society of America, Annual Meeting, Summit 2000. Reno, Nevada. 2000.

Shepard, Michael K., Musselman, Zachary A. *Geomorphology from Space - Radar*. 30th Lunar and Planetary Science Conference. Houston, Texas. 1999.

Musselman, Zachary A., Shepard, Michael K. *A Test of a Common Super-Resolution Algorithm*. 30th Lunar and Planetary Science Conference. Houston, Texas. 1999.

Awards

Student Support Travel Award, The Graduate School, University of Kentucky, March 2006.

Graduate Student Travel Grant, Tracy Farmer Center for the Environment, University of Kentucky, January 2006.

Graduate Student Research Grant, Geological Society of America, April 2005.

Student Support Research Award, The Graduate School, University of Kentucky, April 2005.

External Fellowship Application Award, The Graduate School, University of Kentucky, November 2004.

Student Support Travel Award, The Graduate School, University of Kentucky, October 2002.

Departmental Travel Award, Department of Geology, Texas Christian University, 2001.

Departmental Travel Award, Department of Geology, Texas Christian University, 2000.

Louis Hand Madlyn Barnett Fellowship, Department of Geology, Texas Christian University, 2000-2001.

Chairman's Service Award, Department of Geology, Texas Christian University, 2001.

Departmental Honors, Department of Geography and Geosciences, Bloomsburg University, May 1999.

Dean's List, Bloomsburg University, 1999.

Service

Advisory Committee, Explorer Multimedia Incorporated, Arlington, Texas, 2002-present.

Organizing Committee, 35th Binghamton International Geomorphology Symposium, Weathering and Landscape Evolution, Lexington, Kentucky. 2004.

Graduate Student Representative, Library Acquisitions Committee, Department of Geography, University of Kentucky, 2004-05.

President, Geography Graduate Student Union, Department of Geography, University of Kentucky, 2003-04.

Graduate Student Representative, Graduate Committee, Department of Geography, University of Kentucky, 2003-2004.

Graduate Student Representative, Lab Committee, Department of Geography, University of Kentucky, 2002-03.

Graduate Student Desk Czar, Geography Graduate Student Union, Department of Geography, University of Kentucky, 2002-04.

Secretary, Epsilon Delta Chapter, Sigma Gamma Epsilon, Department of Geology, Texas Christian University, 2000-01.

Vice President, Texas Christian University Geological Society, Department of Geology, Texas Christian University, 2000-01.

President, Bloomsburg University Geological Society, Department of Geology, Bloomsburg University, 1998-1999.

Memberships

Geological Society of America, 1998-present.

Sigma Gamma Epsilon, 2000-present.

Association of American Geographers, 2005-present.