MARK ALAN FONSTAD

CURRICULUM VITAE

CONTACT INFORMATION

Mark Fonstad
Associate Professor
Department of Geography
University of Oregon

1251 University of Oregon
Eugene, OR 97403-1251 USA
(541) 346-4208 (Office Phone)
fonstad@uoregon.edu

EDUCATION

Doctor of Philosophy, December 2000
Arizona State University, Department of Geography
NSF & Sigma Xi - Funded Dissertation: *Spatio-Temporal Variation in the Power of Mountain Streams*

Master of Arts, August 1997
Ohio University, Department of Geography
Thesis: *Long-Term Erosional Shoreline Recession Rates in the Southwestern Lake Bonneville Basin, Utah*

Bachelor of Science, May 1995
The University of Wisconsin – Madison, Department of Geography
Senior Thesis: *A Test of the Applicability and Precision of the HEC-2 Computer Model on Flood Level Flows: An Example from the Grant River, Wisconsin*

HONORS AND AWARDS

- ***2020 Denali Recent Accomplishment Award***,
  Mountain Geography Specialty Group of the Association of American Geographers
- 2019 Outstanding Service Award, Department of Geography, University of Oregon
- 2016 Awarded a faculty sabbatical for the 2017-2018 academic year
- 2012 Awarded Tenure and Promotion at the University of Oregon
- ***2010 Favorite Professor, Alpha Chi National College Honor Society***, Texas State University Chapter
- ***2009*** Appointed as Environmental Science Section Editor of the ***Annals of the Association of American Geographers*** (2010-2014)
- ***2007 Marsico Visiting Scholar***, University of Denver
- 2006 Awarded a faculty developmental leave for the 2007-2008 academic year
- ***2006 Dean's Award for Excellence in Scholarly/Creative Activities***, Texas State University
- 2006 Awarded Tenure and Promotion at Texas State University

- ***2005 G.K. Gilbert Award for Excellence in Geomorphic Research***, Geomorphology Specialty Group of the Association of American Geographers
- ***2005 Outstanding Professor Award*** given by the Geography Graduate Student Forum, Texas State University
- ***2004 Golden Apple Award for Excellence in Scholarly/Creative Activities***, College of Liberal Arts, Texas State University
- Invited Speaker for the Spring 2002 United States Geological Survey Colloquium Series
- ***2001 Graduate Student Paper Competition***, **winner**, Geomorphology Specialty Group, Association of the American Geographers
- Post-Doctoral Research Fellowship, Montana State University (June, 2000 -2001)
- Graduate Fellowship, Arizona State University (August, 1997 - 2000)
- Graduate Fellowship, Ohio University (September, 1995 - August, 1997)
- ***1995 Undergraduate Geographer Award***, UW-Madison Geography Department
- ***1994 UW-Madison Hilldale Research Fellowship Award*** with Dr. Dorothy Sack

EXPERIENCE

Associate (2012 - Present) and Assistant (2011-2012) Professor
University of Oregon, Department of Geography,
Also Affiliate member of the Environmental Studies Program at UO, Associate member of the Environmental Sciences Institute (2011-2017)

Associate (2006-2011) and Assistant (2001-2006) Professor
Texas State University, Department of Geography, August 2001 – August 2011

Courtesy Visiting Professor
University of Wisconsin, Department of Geography, May 2010 – present (summer appointment)

Courtesy Visiting Professor
University of Oregon, Department of Geography, June 2001 – present (summer appointments plus fall 2007 term)

Post-Doctoral Research Associate
Montana State University, Mountain Research Center, June 2000 – August 2001

Consultant Geomorphologist
Jones, Skelton & Hochuli, Winter 1998

Lecturer, Teaching Associate, and Research Associate
Arizona State University, August 1997 – May 2000

Teaching and Research Assistant
Ohio University, September 1995 – May 1997

Ranger and Backcountry Instructor
Philmont National High Adventure Base, Summers 1992 and 1995

Research Assistant
University of Wisconsin – Madison, September 1993 – January 1995

Consultant Field Geomorphologist
Bureau of Land Management, August 1994

GIS Intern
City of Oshkosh, WI, Department of Public Works, June 1993 – January 1994

RESEARCH AND SCHOLARLY ACTIVITIES

My primary research interests focus on physical geography and geographic information science and the fusion of these two fields of study. In particular, I have specialized on researching river environments, developing new theories and tools to measure, model, and analyze riverscapes. I have deliberately chosen to work at a variety of spatial scales, from <1 cm to monitoring continental scale river environments. In addition to my river-related activities, I have pursed research into alpine ecotone change, general geomorphic modeling, and general remote sensing.

EDITED BOOKS/VOLUMES

Fonstad, M.A. 2017. *Mountains*: Special Issue of the *Annals of the American Association of Geographers*, vol. 107, no. 2, 27 papers printed + 1 introduction; also hardbound book

Rhoads, B.L. and Fonstad, M.A. 2016. *The Natural and Human Structuring of Rivers and other Geomorphic Systems*. Special Edited Volume of *Geomorphology*, vol. 252, no. 1, 14 papers printed.

Fonstad, M.A. 2013. *Geographies of Water*: Special Issue of the *Annals of the Association of American Geographers*, vol. 103, no.2, 16 papers printed + 1 introduction.

Marcus, W.A. and Fonstad, M.A. 2010. *Remote Sensing of Rivers*: Special Edited Volume of *Earth Surface Processes and Landforms*. 17 papers printed + 1 preface.

Murray, A.B. and Fonstad, M.A. 2007. *Complexity in Geomorphology: Proceedings of the 38th International Binghamton Geomorphology Symposium*. Amsterdam: Elsevier. 407 pp. ISSN 01669-555x.

REFEREED ARTICLES AND CHAPTERS *(Either Published, In Press, or Accepted)*

[35]Levenson, E.S. and Fonstad, M.A. 2022. Characterizing coarse sediment grain size variability along the upper Sandy River, Oregon, via UAV remote sensing. Geomorphology, 417, Article 108447.

[34]Carbonneau, P.E., Dugdale, S.J., Breckon, T.P., Dietrich, J.T., Fonstad, M.A., Miyamoto, H., Woodget, A. 2020. Adopting deep learning methods for airborne RGB fluvial scene classification. Remote Sensing of Environment, 251, Article 112107.

[33]Fonstad, M.A. and Zettler-Mann, A. 2020. The camera and the geomorphologist. Geomorphology, 366, Article 107181.

[32]Zettler-Mann, A. and Fonstad, M.A. 2020. Riverscape mapping and hyperscale analysis of the sediment links concept. Geomorphology, 350, Article 106920.

[31]Frasson, R.P.M., Pavelsky, T.M., Fonstad, M.A., Durand, M., Allen, G.H., Lion, C., Beighley, R.E., Yang, X. 2019. Global relationships among river width, slope, catchment area, meander wavelength, and sinuosity. Geophysical Research Letters, 46(6): 3252-3262.

[30]Tuozzolo, S., Overstreet, B., Mangano, J., Fonstad, M., Hagemann, M., Frasson, R.P.M., Larnier, K., Garambois, P.-A., Durand, M. 2019. Estimating river discharge with swath altimetry: a proof of concept using AirSWOT observations. Geophysical Research Letters, 46(3): 1459-1466.

[29]Beeson, H.W., Flitcroft, R.L., Fonstad, M.A., Roering, J.J. 2018. Deep-seated landslides drive variability in valley width and increase connectivity of salmon habitat in the Oregon Coast Range. Journal of the American Water Resources Association, 54(6): 1325-1340.

[28]Shintani, C., Fonstad, M.A., 2017. Comparing remote-sensing techniques collecting bathymetric data from a gravel-bed river. International Journal of Remote Sensing, vol. 38, issue 8 - 10, pp. 2883-2902.

[27]Courville, B., Jensen, J.L., Dixon, R., Fonstad, M.A. 2014. A Landsat-based evaluation of lake water clarity in Maine lakes. Physical Geography, vol. 35, no. 4, pp. 355-368.

[26]Fonstad, M.A., Dietrich, J.T., Courville, B.C., Jensen, J.L., Carbonneau, P.E. 2013. Topographic structure from motion: a new development in photogrammetric measurement. Earth Surface Processes and Landforms, vol. 38, no. 4, pp. 421-430.

[25]Fonstad, M.A. Cellular automata in geomorphology. 2013. Chapter 2.9, pp. 117-134 in the Volume 2 (Andreas Baas, editor) of the Treatise in Geomorphology series, edited by John F. Shroder..

[24]Fonstad, M.A. 2012. Hyperspectral imagery in fluvial environments. Chapter 4, pp. 71-84 in Remote Sensing of Rivers: Management and Implications, Carbonneau, P. and Piegay, H. (eds).

[23]Legleiter, C.J., Fonstad, M.A. 2012. An introduction to the physical basis for deriving river information by optical remote sensing. Chapter 3, pp. 43-69 in Remote Sensing of Rivers: Management and Implications, Carbonneau, P. and Piegay, H. (eds).

[22]Marcus, W.A., Fonstad, M.A., and Legleiter, C.J. 2012. Management implications of optical remote sensing in the active river channel. Chapter 2, pp. 19-41 in Remote Sensing of Rivers: Management and Implications, Carbonneau, P. and Piegay, H. (eds).

[21]Carbonneau, P., Fonstad, M.A., Marcus, W.A., Dugdale, S. Making Riverscapes Real. 2012. Geomorphology, vol. 137, no. 1, pp. 74-86.

[20]Walther, S., Marcus, W.A., Fonstad, M.A. 2011. Evaluation of high-resolution, true-colour, aerial imagery for mapping bathymetry in a clear-water river without ground-based depth measurements. International Journal of Remote Sensing, vol. 32, no. 15, pp. 4343-4363.

[19]Marcus, W.A., Rasmussen, J., Fonstad, M.A. 2011. Fire and flood effects on local to watershed scale distributions of large wood in Yellowstone streams. Annals of the Association of American Geographers. Vol. 101, no. 1, pp. 21-44.

[18]Lamb, M.P. and Fonstad, M.A. 2010. Rapid formation of a modern bedrock canyon: implications for megaflood reconstructions. Nature Geosciences, vol. 3, no. 7, pp. 477-481.

[17]Fonstad, M.A. and Marcus, W.A. 2010. High-resolution, basin-extent observations of fluvial forms and implications for process understanding. Earth Surface Processes and Landforms, vol. 35, pp. 680-698.

[16]Murray, A.B. Lazarus, E., Ashton, A., Baas, A., Coco, G., Coulthard, T., Fonstad, M., Haff, P., McNamara, D., Paola, C., Pelletier, J., Reinhardt, L., 2009, Geomorphology, complexity, and the emerging science of the earth's surface. Geomorphology. vol. 103, pp. 496-505.

[15]Resler, L.M. and Fonstad, M.A., 2009. A Markov analysis of fine scale change at alpine treeline, in The Changing Alpine Treeline in Glacier National Park, Montana, USA. Butler, D., Malanson, G., Walsh,S., Fagre, D. (eds).

[14]Marcus, W.A. and Fonstad, M.A., 2008, Optical remote mapping of rivers at sub-meter resolutions and watershed extents, Earth Surface Processes and Landforms, vol. 33, pp. 4-24.

[13]Giordano, A., Lu, Y., Anderson, S.A., Fonstad, M.A., 2007, Wireless mapping, GIS, and learning about the digital divide: a classroom experience, Journal of Geography, vol. 106, pp. 285-295.

[12]Parsons, J.A. and Fonstad, M.A., 2007, A geographical cellular automata model of surface water flow, Hydrological Processes, vol. 21, no. 16, pp. 2189-2195.

[11]Fonstad, M.A., 2006, Cellular automata as analysis and synthesis engines at the geomorphology-ecology interface, Geomorphology, vol. 77, no. 3-4, pp. 217-234.

[10]Conyers, M.M. and Fonstad, M.A., 2005, The unusual channel resistance of the Texas Hill Country and its effect on flood flow predictions, Physical Geography, vol. 26, no. 5, pp. 370-395.

[9]Fonstad, M.A. and Marcus, W.A., 2005, Remote sensing of stream depths with hydraulically-assisted bathymetry (HAB) models, Geomorphology, vol. 72, no. 4, pp. 320-339.

[8]Dunham, S., Fonstad, M.A., Anderson, S.A., Czajkowski, K., 2005, Using multi-temporal satellite imagery to monitor the response of vegetation to drought in the Great Lakes region, GIScience and Remote Sensing, vol. 42, no. 3, pp. 185-201.

[7]Jordan, D.C. and Fonstad, M.A., 2005, Two-dimensional mapping of river bathymetry and power using aerial photography and GIS on the Brazos River, Texas, Geocarto International, vol 20, no. 3. pp. 1-8.

[6]Fonstad, M.A., Reichling, J., Van de Grift, J.W., 2005, Design of a new transparent velocity head rod for rapid and precise stream velocity measurements, Journal of Geoscience Education, vol. 53, no. 1, pp. 44-52.

[5]Legleiter, C.J., Roberts, D.A., Marcus, W.A., Fonstad, M.A., 2004, Optical remote sensing of river channel morphology and in-stream habitat: physical basis and feasibility, Remote Sensing of Environment, vol. 93, pp. 493-510.

[4]Fonstad, M.A. and Marcus, W.A., 2003, Self-organized criticality in riverbank systems, Annals of the Association of American Geographers, vol. 93, no. 2, pp. 281-296.

[3]Legleiter, C.J., Lawrence, R.L., Fonstad, M.A., Marcus, W.A., Aspinall, R., 2003, Fluvial response to wildfire in northern Yellowstone: a spatially explicit analysis, Geomorphology, vol. 54, no. 3-4, pp. 119-136.

[2]Resler, L.M., Fonstad, M.A., Butler, D.R., 2003, Mapping the alpine treeline ecotone with digital aerial photography and textural analysis, Geocarto International, vol. 19, no. 1, pp. 37-44.

[1]Fonstad, M.A., 2003, Spatial variation in the power of mountain streams in the Sangre de Cristo Mountains, USA, Geomorphology, vol. 55, no. 1-4, pp. 75-96.

REFEREED ARTICLES IN CONFERENCE PROCEEDINGS

Anderson, S.J., Fonstad, M.A., Delrieux, C.A. 2006. Satellite image restoration using the VMCA model. XII Congreso Argentino de Ciencias de la Computación. (Proceedings of the 12th Annual Computer Science Conference).

BOOK REVIEWS

Fonstad, M.A., 2006, Book Review: "*Integrating computer modeling and field observations in geomorphology*" edited by J.F. Schroder and M.P. Bishop. Geomorphology, vol. 74, no. 1-4, pp. 320-322.

Fonstad, M.A., 2002, Book Review: *"Mountain Rivers"* by E.E. Wohl, Geomorphology, vol. 46, no. 3-4, pp. 309-311.

NON-REFEREED ARTICLES AND RESEARCH REPORTS

Fonstad, M.A. 2018. Confessions of a Conference Thief. Op-Ed in the *Newsletter of the American Association of Geographers*. February 2, 2018.

Fonstad, M.A. 2017. Mountains: An Introduction. In Mountains:: Special Issue of the Annals of the American Association of Geographers, vol. 107, no. 2, pp. 235-237.

Fonstad, M.A. 2013. Introduction: Geographies of water. In Geographies of Water: Special Issue of the Annals of the Association of American Geographers, vol. 103, no. 2, pp. 251-252.

Fonstad, M.A. 2012b. A Message from the Chair. Editor's Column in Geomorphorum, the Newsletter of the Geomorphology Specialty Group of the Annals of the Association of American Geographers.

Fonstad, M.A. 2012a. A Message from the Chair. Editor's Column in Geomorphorum, the Newsletter of the Geomorphology Specialty Group of the Annals of the Association of American Geographers.

Fonstad, M.A. 2011b. A Message from the Chair. Editor's Column in Geomorphorum, the Newsletter of the Geomorphology Specialty Group of the Annals of the Association of American Geographers.

Fonstad, M.A. 2011a. A Message from the Chair. Editor's Column in Geomorphorum, the Newsletter of the Geomorphology Specialty Group of the Annals of the Association of American Geographers.

Marcus, W.A. and Fonstad, M.A. 2010. Preface: Remote sensing of rivers: New developments and opportunities for the future. Earth Surface Processes and Landforms (Special Issue on Remote Sensing of Rivers).

Murray, A.B. and Fonstad, M.A. 2007. Preface: complexity (and simplicity) in landscapes. In Complexity in Geomorphology: Proceedings of the 38th International Binghamton Geomorphology Symposium. Murray, A.B. and Fonstad, M.A. (eds). 173-177.

Fonstad, M.A., 2005. Integrated remote sensing and geospatial simulation for watershed management, Proceedings of the International Seminar of the Precious Water Environment, Shimane University, Japan.

Fonstad, M.A., 2000, Spatio-temporal Variation in the Power of Mountain Streams. Ph.D. Dissertation.

Fonstad, M.A., 1999, A Preliminary Assessment of Sand Composition Distribution within Great Sand Dunes National Monument. Report to the Great Sand Dunes National Monument.

Graf, W. L., Aben, L., Amoroso, L., Anderson, S., Armstrong, J., Bartley, J., Beauchamp, V., Cox, J., Curro, J., Dveris, B., Edmonds, J., Fairchild, S., Fergason, K., Fonstad, M., Gomes, C., Hall, R., Henze, M., Hilley, G., Johnson, J., Johnson, H., Keane, J., Levine, C., McGuire, S., O'Day, C., Prud'homme, E., Richter, R., Roach, J., Roberge, M., Villa, N., Vose, R., Washburn, Z., Welter, J., Zoldak, M. 1999, Hydraulics and history: channel change on the Salt River in the Phoenix metropolitan area. *As part of the CAP LTER project. Student and faculty created book*

containing preliminary research results. Center for Environmental Studies, Arizona State University, Tempe, AZ. 148 pp.

Fonstad, M.A., 1999, Ecologic, hydrologic, and geomorphic assessment of streams in the Canadian basin. Report to the Staff of the Vermejo Park Ranch, NM.

Fonstad, M.A., 1998, Ecologic, hydrologic, and geomorphic assessment of streams in the Costilla basin. Report to the Staff of the Vermejo Park Ranch, NM.

Fonstad, M.A., 1998, Stream power variation and channel change in the Salt River basin, AZ. ASU Department of Geography Field Exam, *on file at ASU.*

Fonstad, M.A., 1997, Long-term erosional shoreline recession rates in the southwestern Lake Bonneville basin, Utah. M.A. Thesis.

Fonstad, M.A., 1995, A test of the applicability and precision of the HEC-2 computer model on flood level flows: an example from the Grant River, WI. B.S. Thesis.

PRESENTATIONS

Invited Presentations:

2019 Invited Talk for the Binghamton International Symposium in Geomorphology. "The Camera and the Geomorphologist" presented on October 13, 2019, Metropolitan State University of Denver, Denver, CO.

2018 Invited Talk for the University of Wisconsin - Madison as part of the Yi-Fu Tuan lecture series. "The Mapping of Riverscapes" presented on October 26, 2018, Madison, WI.

2018 Invited Talk for the University of Northern Iowa. "The Serious Business of Geographic Play" presented on March 23, 2018, Cedar Falls, IA.

2017 Invited Talk for the University of Colorado – Colorado Springs "Café Scientifique" talk series, presented November 14, 2017, Colorado Springs, CO.

2017 Invited Talk for Oregon State University. "The Camera and the Geomorphologist: How Big Data is Fundamentally Changing the Science of the Earth's Topography", presented January 26, 2017, Corvallis, OR.

2016 Invited Talk for the University of Oregon's College Scholars Society seminar. "Riverscape Remote Sensing: a Personal Narrative on the Birth of a New Science" presented on June 2, 2016, Eugene, OR.

2015 Invited Talk for the University of Nebraska - Lincoln. "The Camera and the Geomorphologist: A Personal Account of the Topographic Revolution" presented on

April 17, 2015, Lincoln, NE.

2015 Invited Talk for the Bretz Club Conference. “Riverscape Remote Sensing: A Personal Narrative on the Birth of a New Science” presented on April 10, 2015, Gresham, OR.

2015 Invited Talk for the Western Illinois University. “Photography and the Revolutionary Mapping and Documenting of the Three-Dimensional Environment” presented on March 6, 2015, Macomb, IL.

2015 Invited Talk for the Portland State University. “The Camera and the Geomorphologist: A Personal Account of the Topographic Revolution” presented on March 4, 2015, Portland, OR.

2015 Invited Talk for the Upper Midwest Stream Restoration Symposium. “Photography and the Four-dimensional Measurement of Landscapes” presented on February 9, 2015, Dubuque, IA.

2014 Invited Talk for the University of Kentucky. “The Re-enchantment of Photography as a Primary Geographic Mapping Medium” presented on April 18, 2014, Lexington, KY.

2013 Invited Talk for CUAHSI (Consortium of Universities Allied for Water Research”. “Cellular Modeling and Monitoring of Riverscapes” presented on November 8, 2013, Online lecture. Archived at http://www.cuahsi.org/SeminarDetails.aspx?id=68.

2013 Invited Talk for the University of Illinois. “Riverscapes as Atypical Geographic Spaces” presented on March 1, 2013, Urbana, IL.

2013 Invited Talk for the University of Oregon’s Freshman Science Honors Colloquium. “Riverscape Remote Sensing: the Birth of a New Science” presented on February 11, 2013, Eugene, OR.

2012 Invited Talk for the United States Geological Survey “The Implications of Riverscape Complexity and Methods for its Measurement” presented on June 7, 2012, Portland, OR.

2012 Interviewee for “Making Sense of Planet Earth” video series, Ambrose Video, co-organized by Alec Murphy.

2012 Invited Talk for the University of Oregon. “Riverscape Remote Sensing: A Personal Narrative on the Birth of a New Science” presented on April 17, 2012, Eugene, OR

2011 Invited Talk for the University of Oregon. “The Serious Business of Geographic Play” presented on October 6, 2011, Eugene, OR.

2011 Keynote Talk for the Texas Geography Student Research Symposium “Play: the

Handmaiden of Geographic Research Work" presented on April 1, 2011, Texas State University, San Marcos, Texas.

2010 Invited Talk for the Binghamton International Symposium in Geomorphology. "Making Riverscapes Real" (Co-authors Carbonneau, P., Marcus, W.A., Dugdale, S.) presented on October 16, 2010, University of South Carolina, Columbia, SC.

2010 Keynote Talk for the NSF IGERT Conference *Representing Reality: A Conference on Imagery in the Cognitive, Social, and Natural Sciences* – "The Light Fantastic: GIScience and the Representation of Riverscapes" presented on May 12, 2010, University of Buffalo, Buffalo, NY.

2008 Invited Talk for King's College, University of London. "Geographical Mapping and Modelling of Entire Riverscapes" presented on June 27, 2008, London, UK.

2008 Invited Talk for the British Hydological Society -- Ecohydraulics at Scales Relevant to Organisms meeting. "From Organism Ecohydraulics to Population Ecohydraulics: Making Riverscapes a Practical Reality" presented on June 5, 2008, Loughborough, UK.

2008 Invited Talk for Loughborough University. "Mapping the Hyperscale Riverscape" presented on May 28, 2008, Loughborough, UK.

2008 Invited Talk for the University of Newcastle. "From Raster to Rivers: Explicitly Spatial Approaches in Fluvial Studies" presented on May 19, 2008, Newcastle, UK.

2008 Invited Talk for the University of Wales. "The Hyperscale Structure of Rivers" presented on May 8, 2008, Aberystwyth, UK.

2008 Invited Talk for the University of Exeter. "From Raster to Rivers" presented March 12, 2008, Exeter, UK.

2008 Invited Talk for the University of Birmingham. "Looking for the Four-Dimensional Structure of the Riverscape" presented March 3, 2008, Birmingham, UK.

2008 Invited Talk for the University of Liverpool. "Riverscapes: A View at Every Possible Scale" presented February 20, 2008, Liverpool, UK.

2007 Invited Talk for the University of Oregon. "Mapping the Riverscape" presented November 29, 2007, Eugene, OR.

2007 Invited Marsico Scholar Talk at the University of Denver. "Simplicity and Complexity in Riverscapes" presented May 16, 2007, Denver, CO.

2007 Invited Marsico Scholar Talk at the University of Denver. "Cellular Automata in Environmental Modeling" presented May 15, 2007, Denver, CO.

2007 Invited Marsico Scholar Talk at the University of Denver. “Measuring Past Climates and Past Climate Change” presented May 14, 2007, Denver, CO.

2006 Invited Colloquium for the “How I Became a Scientist” Lecture Series at Texas State University. “The Light Fantastic: A Field Education from Running Rivers to Remote Sensing” presented October 6, 2006, San Marcos, TX.

2006 Invited Talk for Denver University. “The Remote Sensing of Rivers” presented January 6, 2006, Denver, CO.

2005 Invited Talk for Royal Holloway College, University of London. “Modelling, Management, and Method in River System Analysis” presented November 29, 2005, London, UK.

2005 Invited Speaker for the Geosalar International Workshop on Geomatics and Fish Habitat Modelling in Rivers and Estuaries. “Clearwater Riverine Habitats: From Remote Sensing to Hydrodynamical Modeling to Agent-Based Characterization” presented November 17, 2005, Quebec City, Quebec, Canada.

2005 Invited Talk for the University of Oklahoma. “A Geomorphologist in Wonderland: The Undiscovered Country between Physical Geography and Geographic Information Science” presented September 23, 2005, Norman, OK.

2005 Invited Talk for the University of Oregon. “Cellular Modeling in Erdas” presented July 4, 2005, Eugene, OR.

2005 Invited Talk for Virginia Tech University. “From Raster to Rivers: Spatially Dynamic Approaches in Physical Geography” presented April 22, 2005, Blacksburg, VA.

2005 Invited Talk for Shimane University, Japan. “River and Watershed Assessment Using Remote Sensing and Cellular Automata Models” presented January 29, 2005, Matsue, Japan.

2004 Invited Talk for the University of Texas. “Equilibrium, Criticality, and Other Spatial Paradoxes in River Studies and Policy” presented October 29, 2004, Austin, TX.

2004 Invited Talk for Syracuse University. “The Cellular River and the Mapping of Riverscapes” presented April 27, 2004, Syracuse, NY.

2003 Invited Talk for the Russian Academy of Sciences. “Self-Organized Criticality in River Channel Change and its Potential Measurement using Three-Dimensional Remote Sensing” presented November 26, 2003, Moscow, Russia.

2003 Invited Talk for King’s College London. “The Cellular River: As seen by remote sensing and understood through cellular automata models” presented October 29, 2003, London, UK.

2003 Invited Talk for Texas A&M University. "From Raster to Rivers: Cellular Approaches in Physical Geography" presented September 26, 2003, College Station, TX.

2002 Invited Talk for Limnotech, Inc. "The Cellular River Concept and its Applications in Water Resource Management" presented June 28, 2002, Ann Arbor, MI.

2002 Invited Talk for the United States Geological Survey Colloquium Series. "The Cellular River: A New Direction in River Measurement, Modeling, and Management" presented April 4, 2002, Denver, CO.

2001 Invited Talk for the Binghamton International Symposium in Geomorphology. "Spatial Variation in the Power of Mountain Streams" presented October 20, 2001, Chapel Hill, NC.

Contributed Presentations:

2021 Fonstad, M. Dietrich, J., Zettler-Mann, A., "Riverseer: a 3D data framework for pre- and post-restoration monitoring and measurement", to be presented December 14, 2021, American Geophysical Union Annual Meeting, New Orleans, LA (Virtual Presentation).

2021 Dietrich, J. and Fonstad, M., "Small area stream mapping with directly georeferenced pole aerial photography", to be presented December 14, 2021, American Geophysical Union Annual Meeting, New Orleans, LA (Virtual Presentation).

2021 Fonstad, M. Dietrich, J., Zettler-Mann, A., Webster, D., "Riverseer: an open-source approach to high-resolution mapping and monitoring of river environments", presented April 8, 2021, American Association of Geographers Annual Meeting, Seattle, WA (Virtual Presentation).

2021 Dietrich, J. and Fonstad, M., "High-precision 3D fluvial surveying without ground control using directly georeferenced pole aerial photography", presented April 8, 2021, American Association of Geographers Annual Meeting, Seattle, WA (Virtual Presentation).

2019 Fonstad, M.A. "River remote sensing: a mid-revolution report", presented December 12, 2019, American Geophysical Union Annual Meeting, San Francisco, CA.

2019 Zettler-Mann, A. and Fonstad, M.A. "A riverscape mapping approach to the sediment links concept", presented December 13, 2019, American Geophysical Union Annual Meeting, San Francisco, CA.

2019 Dietrich, J.T., Fonstad, M.A., Zettler-Mann, A. "Rivescape mapping with an open-source autonomous surface watercraft", presented December 12, 2019, American

Geophysical Union Annual Meeting, San Francisco, CA.

2019 Fonstad, M.A. and Zettler-Mann, A. “Virtual gravel counting for full-river surveys” presented April 5, 2019, American Association of Geographers Annual Meeting, Washington, D.C.

2018 Fonstad, M.A. and Zettler-Mann, A. “Particle-by-particle sediment mapping at entire river scales by automatic object detection from UAS imagery” presented December 12, 2018, American Geophysical Union Annual Meeting, Washington, D.C.

2018 Behrens, S. and Fonstad, M. “Monitoring water quality in complex wetland systems using remote sensing: case study of the Peace-Athabasca Delta” presented April 10, 2018, American Association of Geographers Annual Convention, New Orleans, LA.

2017 Fonstad, M., Major, J., O’Connor, J., Dietrich, J.,” Reconstructing the 1935 Columbia River Gorge: A Topographic and Orthophoto Experiment“ presented December 13, 2017, American Geophysical Union Annual Meeting, New Orleans, LA.

2017 Zettler-Mann, A. and Fonstad, M.,” Video Instantaneous Structure from Motion for Mapping Water Surface Topography “ to be presented December 13, 2017, American Geophysical Union Annual Meeting,, New Orleans, LA.

2017 American Association of Geographers Annual Convention. Panel Discussant, “Conceptualizing the Integration of UAS Tech into Geog and GISc Research”, presented April 7, 2017, Boston, MA.

2017 American Association of Geographers Annual Convention. Panel Discussant, “Publication and Peer Review in Physical Geography”, presented April 5, 2017, Boston, MA.

2016 Tuozzolo, S., Durand, M.T., Overstreet, B., Mangolo, J., Stringham, C., Pavelsky, T., Frasson, R.P.M., Fonstad, M., Wei, R."Characterizing AirSWOT water elevation accuracy on the Willamette River" presented December 13, 2016, at the American Geophysical Union Annual Meeting, San Francisco, CA.

2015 Fonstad, M. and Grant, G., “Remote Sensing of River Discharge, Depth, and Velocity from Standing Wave Trains” presented March 31, 2016, American Association of Geographers Annual Meeting, San Francisco, CA.

2015 Fonstad, M. and Grant, G., “River Discharge Estimation Using Imaged Critical Flow Phenomena” presented December 17, 2015, American Geophysical Union Annual Meeting, San Francisco, CA.

2015 Lind, P., and Fonstad, M., “Bedload Transport Rates and Flux Patterns in a Steep Montane Tropical River – Rio Pacuare, Costa Rica” presented December 18, 2015, American Geophysical Union Annual Meeting, San Francisco, CA.

2015 Fonstad, M. and Dietrich, J., "Small Stream Surveys: Structure from Motion versus Kinect Mapping for Big Data Collection" presented April 22, 2015, Association of American Geographers Annual Meeting, Chicago, IL.

2014 Fonstad, M. and Dietrich, J., "Structure from Motion vs. the Kinect: Comparisons of River Field Measurements at the 10^{-2} to 10^{2} meter Scales" presented December 18, 2014, American Geophysical Union Annual Meeting, San Francisco, CA.

2014 Beeson, H., Fonstad, M., and Roering, J., "Deep-Seated Landslides Influence Topographic Variability and Salmon Habitat in the Oregon Coast Range, USA" presented December 18, 2014, American Geophysical Union Annual Meeting, San Francisco, CA.

2014 Langston, T., and Fonstad, M., "Characterizing Sediment Flux Using Reconstructed Topography and Bathymetry from Historical Aerial Imagery on the Willamette River, OR" presented December 18, 2014, American Geophysical Union Annual Meeting, San Francisco, CA.

2014 Association of American Geographers Annual Convention. "The Re-enchantment of Geomorphic Photography", presented April 9, 2014, Tampa, FL.

2013 American Geophysical Union Annual Convention "Dreams of a Digital Riverscape Ecosystem", presented December 12, 2013, San Francisco, CA.

2013 Sweeney, K.E., Roering, J.J., Fonstad, M.A. "Testing bedrock incision models: Holocene channel evolution, High Cascades, Oregon", presented December 12, 2013, American Geophysical Union Annual Convention, San Francisco, CA.

2013 Association of American Geographers Annual Convention. "Fluvial Field Education and the Shift from a Data-Poor to a Data-Rich Science", presented April 10, 2013, Los Angeles, CA.

2013 Association of American Geographers Annual Convention. Panel Discussant, "The Good, the Bad, and the Ugly of Manuscript Reviewing", presented April 10, 2013, Los Angeles, CA.

2012 Dietrich, J. and Fonstad, M.A. "Mapping Land and Water Surface Topography with Instantaneous Structure from Motion" presented December 5, 2012, American Geophysical Union Annual Convention, San Francisco, CA.

2012 American Geophysical Union Annual Convention "Utility of Close-Range Remote Sensing Techniques for Mapping Topography and Bathymetry in Small Streams", presented December 5, 2012, San Francisco, CA.

2012 Binghamton Geomorphology Symposium "Geomorphology, Photography, and 3D Mapping using Structure from Motion", presented September 23, 2012, Jackson, WY

2012 Dietrich, J. and Fonstad, M.A. “Three-Dimensional Field Mapping of the Granite Boulder Creek Restoration Project, Oregon”, Binghamton Geomorphology Symposium presented September 23, 2012, Jackson, WY.

2012 NASA Surface Water Ocean Topography Mission, Discharge Algorithms Workshop “An Historical Perspective on Correlations among Discharge-Related Variables”, presented June 18, 2012, Chapel Hill, NC.

2012 Association of American Geographers Annual Convention. “Scale, and the Fusion of Observation and Theory in Weathering Geomorphology”, presented February 24, 2012, New York, NY.

2012 Association of American Geographers Annual Convention. Panel Discussant, “Meet the Editors of the Annals and the Professional Geographer”, presented February 26, 2012, New York, NY.

2011 American Geophysical Union Annual Convention “Topographic Structure from Motion”, presented December 9, 2011.

2011 American Fisheries Society Annual Meeting. “High Resolution, Low-Cost 3D Riverscape Mapping using Field Photography”, presented September 8, 2011, Seattle, WA.

2011 Patrice Carbonneau, P., Fonstad, M., Marcus, W. A., Dugdale, S. “Making Riverscapes Real” presented September 8, 2011, American Fisheries Society Annual Meeting, Seattle, WA.

2011 Association of American Geographers Annual Convention. Panel Discussant, “Meet the Editors of the Annals of the AAG”, presented April 15, 2011, Seattle, WA.

2011 Association of American Geographers Annual Convention. Panel Discussant, “How to be an Editor for the AAG”, presented April 15, 2011, Seattle, WA.

2011 Association of American Geographers Annual Convention. “Space, Time, and the Riverscape” presented April 14, 2011, Seattle, WA.

2011 Dietrich, J., Fonstad, M., Jensen, J., Carbonneau, P., Courville, B. “High Resolution, Automated, Low-cost Topographic Mapping with Microsoft Photosynth” presented April 12, 2011, Association of American Geographers Annual Convention, Seattle, WA.

2011 Association of American Geographers Annual Convention. Panel Discussant, “Annals Editorial Board Meeting”, presented April 12, 2011, Seattle, WA.

2011 Fonstad, M., Courville, B., Dietrich, J., Jensen, J. “Helikites as Testbeds for River

Remote Sensing Techniques" presented December 16, 2010, American Geophysical Union Annual Meeting, San Francisco, CA.

2011 Lamb, M., Fonstad, M. "Rapid Formation of a Modern Bedrock Canyon by a Single Flood Event" presented December 14, 2010, American Geophysical Union Annual Meeting, San Francisco, CA.

2010 Association of American Geographers Annual Convention. "A Simulation Approach to Relating Floods and Fire to Fluvial Wood Transport and Storage" presented April 15, 2010, Washington, D.C.

2010 Association of American Geographers Annual Convention. Panel Discussant, "Meet the Editors of the Annals of the AAG", presented April 17, 2010, Washington, D.C.

2010 Association of American Geographers Annual Convention. Panel Discussant, "Annals Editorial Board Meeting", presented April 15, 2010, Washington, D.C.

2010 Marcus, W.A., Carbonneau, P., Fonstad, M., Walther, S., Dugdale, S. "Making Riverscapes Real" presented April 14, 2010, Association of American Geographers Annual Convention, Washington, D.C.

2010 Anderson, S., Fonstad, M., Vogt, B. "Extending Quantitative Analysis of Historical Photographs" presented April 17, 2010, Association of American Geographers Annual Convention, Washington, D.C.

2009 American Geophysical Union Annual Convention. "The Last Variable: Speculations on Mapping Stream Velocity using Imagery and Models" presented December 18, 2009, San Francisco, CA.

2009 Marcus, W.A., Carbonneau, P., Fonstad, M., Walther, S. "Making Riverscapes Real." presented December 15, 2009, American Geophysical Union Annual Convention, San Francisco, CA.

2009 Walther, S., Marcus, W. A., Fonstad, M. "Bathymetric Mapping Using Remote Sensing on the McKenzie River, Oregon" presented December 18, 2009, American Geophysical Union Annual Convention, San Francisco, CA.

2009 Durand, M., Fonstad, M., Pavelsky, T., Alsdorf, D. "Intercomparison of Algorithms to Estimate River Depth from SWOT Observations of Slope and Width" presented December 18, 2009, American Geophysical Union Annual Meeting, San Francisco, CA.

2009 Association of American Geographers Annual Convention. "Hyperscale Tests of Fluvial Frameworks" presented March 26, 2009, Las Vegas, NV.

2009 Resler, L.M. and Fonstad, M. "Modeling Vegetation-Soil-Climate Connections (and

Disconnections) at Alpine Treeline" Association of American Geographers Annual Convention, presented by L.M. Resler March 25, 2009, New Orleans, LA.

2009 Walther, S.C., Marcus, W.A., and Fonstad, M. "Evaluating the HAB-2 Bathymetric Mapping Model for Different River Characteristics on the McKenzie River, Oregon" Association of American Geographers Annual Convention, presented by S.C. Walther March 25, 2009, New Orleans, LA.

2008 American Geophysical Union Annual Convention. "Basin Extent Measurements of Geomorphology-Stream Habitat Interaction Scales" presented December 17, 2008, San Francisco, CA.

2008 British Society for Geomorphology Annual Conference. "The Local, the Link, and the Network: Hyperscale Comparisons of Remotely-Sensed River Environments" presented on July 4, 2008, Exeter, UK. (poster)

2008 European Geosciences Union Annual Meeting. "Hyperscale, three-dimensional structure of the streams of the Edwards Plateau, Texas, by HAB-transformed digital orthophotoquad imagery " presented April 15, 2008, Vienna, Austria. (poster)

2008 Marcus, W. A. and Fonstad, M. "Creating the International Network of River Observatory Scientists (INROS)" European Geosciences Union Annual Meeting, presented by W. A. Marcus April 15, 2003, Vienna, Austria.

2008 Marcus, W. A. and Fonstad, M. "Making remote sensing of rivers accessible to river scientists and managers: The remote sensing of rivers on-line tutorial project" European Geosciences Union Annual Meeting, presented by W. A. Marcus April 15, 2003, Vienna, Austria. (poster)

2008 Buzo, D., Forstner, M.R.J., Green, M.C., Fonstad, M.A. "A GIS Predictive Habitat Distribution Model for the Houston Toad (Bufo Houstonensis) in Bastrop and Lee Counties, Texas" Texas Academy of Science Meeting, presented by Daniela Buzo March 7, 2008, Corpus Christi, TX.

2007 American Geophysical Union Annual Convention. "Hyperscale Analysis of River Morphology Through Optical Remote Mapping of Water Depths" presented December 14, 2007, San Francisco, CA.

2007 British Society for Geomorphology Annual Conference. "Remote Sensing-Based, Sub-Meter Resolution Mapping of Fluvial Forms and Processes at Watershed-Extents: Possibilities and Needs" presented by both W.A. Marcus and M.A. Fonstad, July 4, 2007, Birmingham, UK.

2007 Meeting of the Large Rivers Group, International Association of Geomorphology. "Physical Habitat Characterization of the Brazos River: A Geospatial and Remote Sensing Approach" presented June 26, 2007, Lyon, France.

2007 Association of American Geographers Annual Convention. “The Three-Dimensional River Environment: Tests of Classical Hydraulic Geometry Predictions using Remote Sensing Approaches along the Brazos River, USA“ presented April, 2007, San Francisco, CA.

2006 Association of American Geographers Annual Convention. “Spatial Maps of River Hydrodynamics Produced by the Unification of Remote Sensing and Cellular Automata Modeling” presented March, 2006, Chicago, IL.

2005 Association of American Geographers Annual Convention Paper Session. “Rapid Bedrock Incision During the Spillway Flood Formation of Barranca de Caliza, Texas, USA” presented April 8, 2005, Denver, CO.

2004 American Society of Photogrammetry and Remote Sensing Annual Convention. “Physical Calibration Issues in Remote Imaging of Clearwater Stream Habitats” presented May 25, 2004, Denver, CO.

2004 Association of American Geographers Annual Convention. “Cellular Automata as Predictive Engines at the Geomorphology-Ecology Interface” presented March 16, 2004, Philadelphia, PA.

2003 Fonstad, M. and Conyers, M. “Flood Prediction Errors due to Anomalously High Roughness Values Along the Balcones Escarpment” Living in Flood Alley Symposium, presented by M. Fonstad September 18, 2003, San Marcos, TX.

2003 Fonstad, M. and Marcus, W. A. “A New Method for High Resolution, Remote Mapping of Stream Habitats across Watersheds” Association of American Geographers Annual Convention, presented by M. Fonstad March 6, 2003, New Orleans, LA.

2003 Marcus, W. A. and Fonstad, M. “Remote Sensing of Stream Depths in Mountain Streams” Association of American Geographers Annual Convention, presented by W. A. Marcus March 6, 2003, New Orleans, LA.

2003 Conyers, M. and Fonstad, M. “A Regional Evaluation of Manning’s Roughness Estimates in Streams of South-central Texas” Association of American Geographers Annual Convention, presented by M. Conyers March 7, 2003, New Orleans, LA.

2003 Dunham, S., Fonstad, M., Anderson, S., and Czajkowski, K. “Using Landsat Imagery to Monitor the Response of Vegetation to Drought in the Great Lakes Region” Association of American Geographers Annual Convention, presented by S. Dunham March 5, 2003, New Orleans, LA.

2002 Panel Discussant. “The Canyon Lake Flood of 2002” Southwestern Division of the Association of American Geographers Meeting, presented November 3, 2002, Laredo, TX.

2002 Fonstad, M., Wu, D., and Jordan, D.C. "Three-dimensional Riverbed Geodiversity Below Whitney Dam, Texas from Textural Analysis of Digital Imagery" Binghamton Symposium in Geomorphology Poster Session, presented October 12-13, 2002, Bloomsburg, PA.

2002 Fonstad, M. and Marcus, W.A. "Criticality, Prediction, and Management of Riverbank Failure at the Watershed Scale" Association of American Geographers Annual Convention, presented by M. Fonstad March, 2002, Los Angeles, CA.

2001 Fonstad, M. and Marcus, W.A. "Self-Organized Criticality as a General Principle of Riverbank Failure and Sediment Mobility" American Geophysical Union Annual Convention, presented by M. Fonstad December, 2001, San Francisco, CA.

2001 Applied Geography Conference Paper Session. "The Fusion of Distributed Hydrologic Modeling, Remote Sensing, and River Channel Change Prediction" presented November 16, 2001, Fort Worth, TX.

2001 Fonstad, M. and Marcus, W.A. "A General Theory of Riverbank Instability" Geological Society of America Annual Convention, presented by M. Fonstad, November 6, 2001, Boston, MA.

2001 Association of American Geographers Annual Convention Paper Session. "The Instability of Classic Flood Assumptions: The Case of the 1999 Canadian River Flood" presented April, 2001, New York, NY.

2000 Anderson, S. and Fonstad, M. "An Assessment of Geographic Pattern Classification Through Spatial Power Spectra Deconvolution" American Society for Photogrammetry and Remote Sensing Annual Convention, presented by S. Anderson May 24, 2000, Washington, DC.

2000 Association of American Geographers Annual Convention.
"Fragmentation of Stream Power Distributions in a High Mountain Setting" presented April 5, 2000, Pittsburg, PA. (poster)

2000 Zoldak, M.A. and Fonstad, M. "Regional Flood Hydrology: Characterization and Prediction in the Sangre de Cristo Mountains" Association of American Geographers Annual Convention, presented by M. Zoldak April 5, 2000, Pittsburg, PA. (poster)

2000 Anderson, S. and Fonstad, M. "A New Form of Geographic Pattern Recognition Through Spatial Power Spectra Deconvolution" Association of American Geographers Annual Convention presented by S. Anderson April 8, 2000, Pittsburg, PA.

2000 Villa, N, Fonstad, M., Vogt, B. "Total-Scale Analysis of Lava Flow Surface Complexity for SP Crater, Northern Arizona" Association of American Geographers Annual Convention, presented by N. Villa April 8, 2000, Pittsburg, PA.

2000 Vogt, B. and Fonstad, M. "Complexity-Scale Relationships in Montane Snowpack Depth: Potential Applications in Snow Process Research and Snow-Water Equivalent Measurement" Association of American Geographers Annual Convention, presented by B. Vogt April 5, 2000, Pittsburg, PA.

1999 Geological Society of America Annual Convention. "The Canadian River Headwaters Flood of 1999: Hydrology, Geomorphology, and Riparian Interactions" presented October 28, 1999, Denver, CO.

1999 Association of American Geographers Annual Convention. "Stream Power Variation and Channel Change in the Salt River Basin, AZ" presented March 25, 1999, Honolulu, HI.

1999 Co-Presenter, All-Scientists Meeting, Central Arizona - Phoenix Long Term Ecological Research (CAP-LTER). "Salt River Historical Channel Change Project" presented May, 1999, Phoenix, AZ.

1998 Campbell, S.W. and Fonstad, M. Rocky Mountain Geological Society of America. "Pediment Surface Erosion Rates Derived From DEM/GIS Analysis and Chlorine-36 Dating Techniques" presented by S. Campbell May, 1998, Flagstaff, AZ. (poster)

1997 Geological Society of America Annual Convention. "Long-Term Erosional Shoreline Recession Rates in the Southwestern Lake Bonneville Basin, Utah" Salt Lake City, UT.

1997 Fonstad, T.A. and Fonstad, M. "Seasonal Aspects of Wisconsin Silent Sports" Wisconsin Geographical Society Annual Meeting, presented by T. Fonstad September 20, 1997, Whitewater, WI.

1996 Fonstad, M. and Sack, D. "Numeric Dating of the Carrizozo Malpais, New Mexico" Association of American Geographers Annual Convention, presented by M. Fonstad, Charlotte, NC. (poster)

1996 Ohio University Department of Geography Colloquium. "Stratigraphy and Numeric Dating of the Carrizozo Malpais Lava Flow, New Mexico" Athens, OH.

RESEARCH GRANT AND CONTRACT ACTIVITY

2019 "NSF-EAGER: Next-Generation Riverscape Mapping and Monitoring" ($300,000)

2017 "Lateral Channel Confinement and Its Impact on Channel Morphology" ($15,912), NSF (GSS Program) Doctoral Dissertation Research Improvement grant with co-PI (and Ph.D. student) Aaron Zettler-Mann.

2017 "An Entire River Test of Next-Generation 'Riverscape' Mapping Methods" ($5212) funded by the University of Oregon's Faculty Research Awards program.

2015 “Production of 1935 Topographic Datasets of the Columbia River Gorge from Aerial Photogrammetry” ($2500) contract work for the USGS Water Sciences Center, Portland, OR (2015-2016).

2013 Stanley B. Greenfield Faculty Award through the UO library to purchase the “Treatise in Geomorphology” book series, along with Pat McDowell and Josh Roering. ($3100)

2010 “Fluvial Wood Presence and Dynamics Over a Thirty-Year Interval in Forested Watersheds” ($7,900), NSF (GSS Program) Doctoral Dissertation Research Improvement grant with co-PI (and Ph.D. student) Jane Atha.

2009 “Global Spatial River Database Construction in Support of the NASA Surface Water Ocean Topography (SWOT) Mission” contracted work, funding from Ohio State University, 2009-2011 ($4,500).

2009 “Remote Measurement of River Velocity for Habitat Characterization” ($6,594) funded by Texas State University REP grant (2009-2010).

2007 “Complexity in Geomorphology: the 38th Binghamton Geomorphology Symposium” ($33,000) funded by several Geoscience-related NSF programs (lead program: GLD) with co-PI Brad Murray of Duke University.

2003 Hydrologic consultant to EPA-STAR grant “Developing Effective Ecological Indicators for Watershed Analysis” project analysis ($5,000)

2002 Hydrologic consultant to EPA-STAR grant “Developing Effective Ecological Indicators for Watershed Analysis” project analysis ($5,100)

2002 “A New Photogrammetric Method for Measuring Historic Three-Dimensional River Channel Change” - Southwest Texas State University REP grant ($7,100)

2002 Hydrologic consultant to BioMedware, Inc. on “Spatially Explicit River Modeling” project design ($2,200)

1998 “Spatio-temporal Variation in the Power of Mountain Streams”- National Science Foundation Doctoral Dissertation Improvement Grant, Will Graf, co-PI, ($9,700)

1998 “Visualizing Spatial Variation in the Power of Mountain Streams”- Sigma Xi Grant ($300)

TEACHING

My teaching interests at the undergraduate level include introductory classes in physical geography, as well as intermediate and advanced undergraduate classes in physical geography (such as geomorphology, hydrology, and fluvial geomorphology) and various remote sensing classes. At the graduate level, I have interests in teaching theoretical physical geography classes (such environmental systems analysis), applied remote sensing and geocomputation classes, geographic research design, and seminars on rivers, mountains, and the interface between environmental geography and geographic information science.

Undergraduate Courses:
University of Oregon – Geog 141: The Natural Environment
University of Oregon – Geog 322: Geomorphology
University of Oregon – Geog 410: Mountain Geography
University of Oregon – Geog 418: Fundamentals of Remote Sensing
University of Oregon – Geog 425: Hydrology and Water Resources
University of Oregon – Geog 427: Fluvial Geomorphology
University of Oregon – Geog 485: Remote Sensing I
University of Oregon – Geog 486: Remote Sensing II
University of Oregon – Geog 410: Topic: Mapping with Drones
Texas State University – Geo 2410: Introduction to Physical Geography
Texas State University – Geo 2426: Fundamentals of GIS
Texas State University – Geo 3325: Geomorphology
Texas State University – Geo 3434: Water Resources Management
Texas State University – Geo 4325: Fluvial Processes
Texas State University – Geo 4412: Digital Remote Sensing
Texas State University – Geo 4430: Field Methods

Graduate Courses:
University of Oregon – Geog 510: Mountain Geography
University of Oregon – Geog 518: Fundamentals of Remote Sensing
University of Oregon – Geog 525: Hydrology and Water Resources
University of Oregon – Geog 527: Fluvial Geomorphology
University of Oregon – Geog 585: Remote Sensing I
University of Oregon – Geog 586: Remote Sensing II
University of Oregon – Geog 590: Topic: Mapping with Drones
University of Oregon – Geog 607: Seminar: Physical Geography of Oregon
University of Oregon – Geog 607: Seminar: Willamette Riverscape
University of Oregon – Geog 607: Seminar: Photography and Geographic Research
University of Oregon – Geog 611: Theory and Practice of Geography
University of Oregon – Geog 612: Current Trends in Geography
Texas State University – Geo 5316: Applied Physical Geography
Texas State University – Geo 5395: Fluvial Processes
Texas State University – Geo 5334: Applied Water Resources Management
Texas State University – Geo 5430: Advanced Field Methods
Texas State University – Geo 5370: Modeling in Physical Geography

Texas State University – Geo 7300: Advanced Geographic Research Design
Texas State University – Geo 7313: Environmental Systems Analysis
Texas State University – Geo 7316: Remote Sensing and Environment
Texas State University – Geo 7318: GIS in Environmental Geography
Texas State University – Geo 7364: Geocomputation
Texas State University – Geo 7370: Advanced Seminar in Environmental Geography

TIMELINE OF COURSES TAUGHT AT THE UNIVERSITY OF OREGON

Fall 2011: GEOG 418/518
Winter 2012: GEOG 425/525
Spring 2012: GEOG 607 (Physical Geography of Oregon)

Fall 2012: GEOG 141, GEOG 611
Winter 2013: GEOG 612
Spring 2013: GEOG 425/525, GEOG 486/586

Fall 2013: GEOG 425/525, GEOG 611
Winter 2014: GEOG 410/510, GEOG 607 (Willamette Riverscape)
Spring 2014: None

Fall 2014: GEOG 141, GEOG 425/525, GEOG 611
Winter 2015: GEOG 485/585, GEOG 612
Spring 2015: None

Fall 2015: GEOG 141, GEOG 607 (Physical Geography of Oregon)
Winter 2016: GEOG 410/510, GEOG 425/525
Spring 2016: None

Fall 2016: GEOG 410/510, GEOG 611
Winter 2017: GEOG 425/525, GEOG 612
Spring 2017: GEOG 427/527

Fall 2017: Sabbatical
Winter 2018: Sabbatical
Spring 2018: Sabbatical

Fall 2018: GEOG 141, GEOG 485/585, GEOG 611
Winter 2019: GEOG 612
Spring 2019: GEOG 607 (Photography & Geographic Research)

Fall 2019: GEOG 141, GEOG 611
Winter 2020: GEOG 612, One-Course Release
Spring 2020: GEOG 490/590

Fall 2020: GEOG 141

Winter 2021: GEOG 425/525
Spring 2021: GEOG 322, GEOG 410/510

Fall 2021: GEOG 141
Winter 2022: One-Course Release
Spring 2022: GEOG 322, GEOG 607 (Physical Geography of Oregon)

Fall 2022: GEOG 141, GEOG 427/527

THESIS ADVISING AND COMMITTEE MEMBERSHIP

Advising Completed

Devin Lea (Dissertation Committee Chair, 2021)
Letters of map change on flood insurance rate maps in the United States National Flood Insurance Program

Dakota Whitman (Thesis Committee Chair, 2021)
Fluvial geomorphic history of the Virgin River in response to tamarisk colonization and removal

Dion Webster (Thesis Committee Chair, 2021)
Modeling reach scale response to controlled flows on the Willamette River

Eric Levenson (Thesis Committee Chair, 2021)
Multiscale grain-size mapping along the upper Sandy River

Riley Anderson (Thesis Committee Chair, 2020)
High resolution remote sensing of eelgrass in South Slough, Oregon

Aaron Zettler-Mann (Dissertation Committee Chair, 2019)
Lateral channel confinement, tributaries, and their impact on channel morphology

Syler Behrens (Thesis Committee Chair, 2018)
Monitoring water quality in complex wetland ecosystems using remote sensing: a case study of the Peace-Athabasca Delta

Sarah Proctor (Thesis Committee Chair, 2016)
Fluvial biogeomorphic evolution of the upper South Fork Toutle River, WA after the 1980 eruption of Mount St. Helens

Christina Shintani (Thesis Committee Chair, 2016)
Comparing photogrammetric and spectral depth techniques in extracting bathymetric data in a gravel-bed river

Eliza Pearce (Senior Honors Thesis Advisor, 2016)
An examination of the relationship between Rapa Nui ahu and topographyusing structure from motion and GIS

Trevor Langston (Thesis Committee Chair, 2015)
Spatial patterns of sediment transport in the upper Willamette River, Oregon

James Dietrich (Dissertation Committee Chair, completed 2014)
Applications of structure-from-motion photogrammetry to fluvial geomorphology

Helen Beesen (Thesis Committee Chair, completed 2014)
Deep-seated landslides, topographic variability, and salmon habitat in the Oregon Coast Range, USA

Jane Heath Atha (Dissertation Committee Chair, completed 2013)
Long-term fluvial wood dynamics in the Oregon Coast Range

Mindy Conyers (Dissertation Committee Chair, completed 2011)
Spatial prediction of channel instability in the Animas River Basin, Colorado

C. Andy Day (Dissertation Committee Chair, completed 2011)
Forecasting future local hydroclimatology: A framework for local water resource in the Animas River basin at Durango, Colorado

Delbert Humberson (Thesis Committee Chair, 2008)
Applying the Cellular Automata Evolutionary Slope and River (CAESAR) model to a highly erosive reach of the Colorado River, Austin, Texas

Jane Heath (Thesis Committee Chair, 2006)
Criticality and river instability response to mountain environment control

Jonathan Frodge (Thesis Committee Chair, 2006)
Modeling the occurrence of springs and seeps along the Blanco River, Texas using logistic regression

Jason Pinchback (Thesis Committee Chair, 2005)
Spatial aspects of water quality management in Austin, Texas

Jay Parsons (Thesis Committee Chair, 2004)
A computational cellular automaton for modeling surface water flow within the Rocky Mountain National Park.

Mindy Conyers (Thesis Committee Chair, 2003)
A regional evaluation of Manning's roughness estimates in streams of south-central Texas

Susan Dunham (Thesis Committee Chair, 2003)
Using multitemporal satellite imagery to monitor the response of vegetation to drought in the Great Lakes region.

David Jordan (Thesis Committee Chair, 2002)
Two-dimensional mapping of river bathymetry and power using aerial photography and GIS on the Brazos River, Texas.watershed, Hays County, Texas

Doctoral Committee Memberships

(Larry) Syu-Heng Lai (Ph.D. Committee Member, in progress)
Title TBA

Matthew Morriss (Ph.D. Committee Member, 2020)
The Dynamic Interplay Between Miocene to Post-Miocene Magmatism, Tectonism, and Geomorphology in NE Oregon

Daniel O'Hara (Ph.D. Committee Member, 2020)
The Signatures of and Feedbacks Between Magmatic and Surface Processes in Volcanic Provinces

Swagata Goswami (Ph.D. Committee Member, 2018)
Geomorphology, hydrology and human-environment interactions of the Kosi megafan in the Gangetic Plains, India

Pollyanna Lind (Ph.D. Committee Member, 2016)
Geomorphology and sediment dynamics of a humid tropical montane river, Rio Pacuare, Costa Rica

Corina Cerovski-Darriau (Ph.D. Committee Member, 2016)
Landslides and Landscape Evolution over Decades to Millennia: Using Tephrochronology, Air Photos, Lidar, and Geophysical Investigations to Reconstruct Past Landscapes

Kristen Sweeney (Ph.D. Committee Member, 2015)
Linking geomorphic process and landscape form: Topographic analysis, analog experiments, and numerical modeling

Hannah Dietterich (Ph.D. Committee Member, 2015)
Remote sensing, morphologic analysis, and analogue modeling of lava channel networks in Hawai'i

Amy Woodget (Ph.D. External Examiner, University of Worcester, 2015)
High resolution remote sensing and object based image analysis for river habitat detection

Matthew Connelly (Ph.D. Committee Member, 2013)

Spatiotemporal drivers of municipal water consumption

Shelrie Houlton (Ph.D. Committee Member, 2013)
Communication and interaction in group decision-making during school shooting simulations

Adam Booth (Ph.D. Committee Member, 2012)
The role of deep-seated landslides in landscape evolution: quantitative modeling and high-resolution topographic analysis

Bernie Fang (Ph.D. Committee Member, 2012)
A pseudo individual near real-time measurement for assessing air pollution exposure in selected Texas cities

Jiao Wang (Ph.D. Committee Member, 2012)
Scale effects on the remote estimation of evapotranspiration

Adrian Vogl, Dept. of Biology, Texas State (Ph.D. Committee Member, 2010)
A systems approach to decision support for water resources: Cyprus Creek

Jon Kedrowski (Ph.D. Committee Member, 2010)
The Mount Everest project: A cross-section of overall climber demographics, Everest climbing experience, perception of climber's risk, and environmental and hazard assessment.

Xuelian Meng (Ph.D. Committee Member, 2010)
Urban CBD change analysis using high-resolution feature analysis

Emariana Taylor (Ph.D. Committee Member, 2009)
Individual-based ecological model of urban resource patch use by Mexican Free-Tailed Bats in Austin, Texas

Jose Silvan Cardenas (Ph.D. Committee Member, 2009)
Modeling invasive species spread: a case study of Tamarisk along Rio Grande river basin

Guangyu Wu (Ph.D. Committee Member, 2008)
Regional Climate Change and its Impact on Water Resources in Texas

Junmei Tang (Ph.D. Committee Member, 2007)
Multitemporal study of urban growth using remote sensing and cellular automata modeling

Carol Sawyer (Ph.D. Committee Member, 2007)
The formation of patterned ground in Glacier National Park, Montana.

Brian Brettschneider (Ph.D. Committee Member, 2006)
Estimating Atlantic Basin Tropical Cyclone Landfall Probability for the United States

Derek Wu (Ph.D. Committee Member, 2006)
Urban land use classification using variogram-based post-classification

Jonathan Herbert (Ph.D. Committee Member, 2004)
Predicting future climate change in Big Bend National Park, Texas

Lynn Resler (Ph.D.Committee Member, 2004)
Conifer establishment sites on a periglacial landscape, Glacier National Park

Masters Committee Memberships

Nicole Merrill (M.S. Committee Member, in progress)
Title TBA

Daniel Baldwin (M.S. Committee Member, 2019)
Monitoring Aquatic Habitat Restoration using High-Resolution Multispectral Remote Sensing

Christina Appleby (M.S. Committee Member, 2016)
Potential Impacts of Stream Rehabilitation on the lower Long Tom River

Alexander Handwerger (M.S. Committee Member, 2015)
Controls on the kinematics of slow-moving landslides from satellite radar interferometry and mechanical modeling

Brian Penserini (M.S. Committee Member, 2015)
Debris flow network morphology and a new erosion rate proxy for steepland basins with application to the Oregon Coast Range and Cascadia Subduction Zone

Ariana White (M.S. Committee Member, 2014)
Postglacial vegetation change in the interior temperate rainforest of British Columbia

Amanda Reinholtz (M.S. Committee Member, 2012)
Reforestation, water yield, and management of micro-watersheds in Central America

Brittany Courville (M.S. Committee Member, 2012)
Remote sensing of water quality trends in lakes across Maine

Shelley Miller (M.S. Committee Member, 2010)
Comparative study of the spatial organization and zoogeomorphic effects of black-tailed prairie dogs

Sean Lafferty (M.S. Committee Member, 2010)
Openness to change: A new spatial portrait of America

Mohan Rao (M.S. Committee Member, 2009)
Using remotely sensed imagery to identify parking lot sealant surface types

Daniela Buzo, Dept. of Biology, Texas State (M.S. Committee Member, 2008)
Predictive habitat suitability models for the Houston Toad

Chris (Andrew) Day (M.S. Committee Member, 2006)
Groundwater contaminant concentrations of land use categories for the Barton Springs, Edwards Aquifer, TX

Lynn Smollin (MAG Committee, 2006)
A climatology of streamflow for Glacier National Park, USA

Carl Schmiedeskamp (MAG Committee Member, 2005)
Remote sensing and cellular automata simulation of wildfire propagation

Matthew Thompson (MAG Committee Member, 2005)
The influence of land use/ land cover within riparian environments on channel change in mixed alluvial bedrock rivers: a comparative study between the Medina and Guadalupe rivers, Texas

Grady Reed (MAG Committee Member, 2004)
Development of a daily water demand model for selected Texas cities: A comparison of daily climate variations on water demand

Brian Plaster (M.S. Committee Member, 2003)
The geomorphic impact of marmots in Gothic, Colorado

Carol Sawyer (M.S. Committee Member, 2003)
Aerial-photographic inventory and analysis of landslides in northeastern Yellowstone National Park, Wyoming.

Chris Simek (MAG Committee Member, 2003)
Use of spectral mixture analysis to estimate Ashe Juniper coverage in Pedernales River subwatersheds.

Emily Manderson (M.S. Committee Member, 2002)
Plant composition on four basalt flows at El Malpais National Monument, NM

PROFESSIONAL SERVICE

2022 Co-organizer (with J. Toby Minear and Sarah Cooley) of the CUAHSI/NASA Surface Water Field School

2020 Panelist, Research Grant Program, NASA NSPIRES Program

2011-2019 Editorial Board Member, *Geomorphology*.

2017 Co-organizer (with Sarah Lewis) of the 2018 Bretz Club symposium.

2017 Panelist, Research Grant Program, NSF Arctic Sciences Program

2010-2017 Environmental Sciences Section Editor of the *Annals of the Association of American Geographers*

2014 Co-organizer (with Tamlin Pavelsky and Patrice Carbonneau), "Remote Sensing of Rivers: Observations Across Scales" Special Session at the 2014 American Geophysical Union meeting in San Francisco, CA.

2014 Panelist, Research Grant Program, NASA Terrestrial Hydrology Program

2014 Co-organizer (with Bruce Rhoads), "The Natural and Human Structuring of Rivers and other Geomorphic Systems: Special Sessions in Honor of Will Graf" at the 2014 Association of American Geographers meeting in Tampa, FL.

2013 Co-organizer (with Josh Roering and Sarah Lewis) of the 2013 Bretz Club symposium, April 26-27, Charleston, OR.

2012 Contributor of figures and narrative for "Waterfalls" and "Landscape Change" page pairs in *Atlas of Yellowstone*, edited by W. Andrew Marcus, James Meacham, Ann Rodman, Alethea Steingisser.

2012 Co-organizer (with Patrice Carbonneau, Kostas Andreadis, snd Carl Legleiter), "Remote Sensing of Riverscape Topography" Special Session at the 2012 American Geophysical Union meeting in San Francisco, CA.

2011-2012 Chair, Geomorphology Specialty Group, Association of American Geographers

2011 Organizer, "Advances in Spatial & Temporal Analysis: Examples from Different Landscapes" Special Session at the 2011 Association of American Geographers meeting in Seattle, WA

2010-2011 Secretary/Treasurer, Geomorphology Specialty Group, Association of American Geographers

2010 Co-organizer (with Patrice Carbonneau, Tamlin Pavelsky, and Carl Legleiter), "The Remote Sensing of Rivers" Special Session at the 2010 American Geophysical Union meeting in San Francisco, CA

2009 Co-organizer (with Patrice Carbonneau, Herve Piegey, and Carl Legleiter), "Assessing Forms, Processes, and Habitats in Freshwater Environments Using High-Resolution Remote Sensing" Special Session at the 2009 American Geophysical Union meeting in San Francisco, CA

2008 Invited member of NASA Surface Water Ocean Topography hydrology (SWOT) satellite mission workshop working group. Workshop on September 15-17, 2008 at Ohio State University in Columbus, OH

2008 Invited member of National Institute for Environmental eScience working group "Individuals and Environmental Change: eScience for Sustainable Systems". Workshops in Gregynog, Wales on March 4-5, 2008 and the University of Cambridge, UK on July 18, 2008

2008 Co-organizer (with W. Andrew Marcus), "Remote Sensing of Rivers" Special Session at the 2008 European Geosciences Union meeting in Vienna, Austria

2007-2008 Chair, Mountain Geography Specialty Group, Association of American Geographers

2006-2007 Secretary/Treasurer, Mountain Geography Specialty Group, Association of American Geographers

2004-2007 Co-organizer (with A. Brad Murray) of the 2007 Binghamton International Geomorphology Symposium held at Duke University

1999-2005 Co-organizer of Silverton Geography Field School, Silverton, CO

2001 Volunteer consultant for the National Avalanche Center, Bozeman, MT

1998 Field trip leader, Arizona Geographic Alliance teachers' Annual GeoDayTrip; familiarized K-12 teachers with geography fieldwork in the desert southwest

1998 Volunteer field geomorphologist, *Verde River paleoflood reconstruction*, with the Arizona Geological Survey

Reviewer Activities:

2022- Reviewer for *Remote Sensing of Environment* and *Water Resources Research*

2019-2021 Declined review requests during this period

2018-2019 Reviewer for *Geomorphology, Earth Surface Processes and Landforms, Ecohydrology, Water Resources Research, Annals of the American Association of Geographers, Journal of Geophysical Research – Earth Surface, Environmental Research Letters, and Remote Sensing of Environment*

2017-2018 Reviewer for *Geomorphology* and the *National Science Foundation*

2016-2017 Reviewer for *Geomorphology, Earth Surface Processes and Landforms, Remote Sensing of Environment, AGU Earth Surface, Water Resources Research,* and the *National Science Foundation*

2015-2016 Reviewer for *Geomorphology*

2014-2015 Reviewer for *Earth Surface Processes and Landforms*, *Geomorphology*, *Methods in Ecology and Evolution, Hydrology and Earth System Science*, *Progress in Physical Geography*, *Water Resources Research*, the National Science Foundation, and the National Aeronautics and Space Administration

2013-2014 Reviewer for *Earth Surface Processes and Landforms*, *Geomorphology*, *Remote Sensing of Environment*, *Remote Sensing*.

2012-2013 Reviewer for *Earth Surface Processes and Landforms*, *Geomorphology*, *River Research and Applications*, *Water Resources Research*, *International Jounral of Remote Sensing*, National Geographic Society, and the National Science Foundation

2011-2012 Reviewer for *Earth Surface Processes and Landforms*, *Geomorphology*, *River Research and Applications*, *Water Resources Research*, *Hydrological Sciences Journal*, *Geocarto International*, *International Journal of Geographical Information Science*, and the National Science Foundation.

2010-2011 Reviewer for *Earth Surface Processes and Landforms*, *Geomorphology*, *River Research and Applications*, *Gravel Bed Rivers 7*, and the NSF.

2009-2010 Reviewer for *River Research and Applications, Geomorphology, Annals of the Association of American Geographers, Earth Surface Processes and Landforms, Remote Sensing, Remote Sensing of Environment, Treatise in Fluvial Geomorphology, Limnology and Oceanography, Journal of Geophysical Research – Earth Surface*, and the National Science Foundation.

2008-2009 Reviewer for *Geomorphology*, *Geography Compass*, *Annals of the Association of American Geographers, Earth Surface Processes and Landforms, Photogrammetric Engineering and Remote Sensing, Remote Sensing, Geology, Zeitschrift für Geomorphologie, River Research and Applications,* the Graduate

Women in Science Fellowships Program, and the National Science Foundation, and also an external reviewer for two tenure and promotion applicants.

2007-2008 Reviewer for *IEEE GIScience and Remote Sensing*, *Geomorphology*, *Earth Surface Processes and Landforms, Annals of the Association of American Geographers, Lakes & Reservoirs: Research and Management, River Research and Applications, Journal of Environmental Management*, and the National Science Foundation

2006-2007 Reviewer for *Geological Society of America Bulletin*, *Photogrammetric Engineering and Remote Sensing*, *Geomorphology*, and the National Science Foundation

2005-2006 Reviewer for *Remote Sensing of Environment, Journal of Environmental Management, Geomorphology, Photogrammetric Engineering & Remote Sensing, Geographical Analysis*, and the USDA-SBIR program

2004-2005 Reviewer for *River Research and Applications, Geomorphology*, and the National Science Foundation

2003-2004 Reviewer for *Geomorphology*, the *Professional Geographer*, *Remote Sensing of Environment*, and the National Science Foundation

2002-2003 Reviewer for *Geomorphology*, and the National Science Foundation

2001-2002 Reviewer for the *Journal of Geographical Systems*, *Geomorphology*, and the National Science Foundation

UNIVERSITY SERVICE

2021-2022 Chair of the Search Committee for the Head of the UO Infographics Lab CAS Deans Office)

2014-2016 Faculty Research Awards Committee, University of Oregon

2012 Poster Judge, Roosevelt Middle School student earthquake poster presentations, May 14, 2012, Eugene, OR.

2005-2007 Department of Geography Liaison to the Faculty Senate, Texas State University

2006-2007 Member of Spring Lake Management Committee, Texas State University

2004-2005 Faculty Advisor, Texas State University chapter of the *American Society of Photogrammetry and Remote Sensing*

1999 Presenter, ASU *International Earth Science Day*, introducing remote sensing and geovisualization techniques to a diverse public audience

1999 Presenter, ASU *Discovery Tours*, a weekly informal educational session educating undergraduates on cutting edge geographic technologies

1999 Co-organizer, Graduate Earth and Life Sciences Symposium, Arizona State University

1998 Volunteer co-director, *Salt River Long Term Ecological Research Historic Channel Change* project, an interdisciplinary class educational and research effort in modeling large floods and reconstructing historic channel changes in the Salt River of Arizona

DEPARTMENTAL SERVICE

2022- UO Geography Graduate Director

2021-2022 UO Geography Graduate Admissions Committee (Chair)

2020-2021 UO Geography Graduate Admissions Committee (Chair)

2019-2020 UO Geography Graduate Admissions Committee (Chair), Environmental Remote Sensing Search Committee (Chair)

2018-2019 UO Geography Graduate Admissions Committee (Chair)

2016-2017 UO Geography Graduate Director, UO Geography Graduate Admissions Committee

2015-2016 UO Geography Graduate Director, UO Geography Graduate Admissions Committee

2014-2015 UO Geography Graduate Admissions Committee, Chair of Search Committee for Geospatial Technologies new faculty member.

2013-2014 UO Geography Graduate Admissions Committee, Chair of Search Committee for Geospatial Technologies new faculty member.

2013-2014 UO Geography Graduate Admissions Committee, Department of Geography Liaison to the Library, Promotion and tenure committee evaluating Dr. Derrick Hindery.

2012-2013 UO Geography Graduate Admissions Committee, Department of Geography Liaison to the Library, Leader of the Workshop on Academic Job Preparation, Faculty evaluation of Dr. Chris Bone's progress towards promotion and tenure.

2011-2012 UO Geography Graduate Admissions Committee, Department of Geography Liaison to the Library, Leader of the Workshop on Academic Job Preparation

2010-2011 Associate Director, Texas Center for GIScience, Texas State Department of Geography Travel Committee (Chair), Department Colloquium and Professional Workshops Coordinator, Leader of the Workshop on Academic Job Preparation (for graduate students of the department)

2009-2010 Associate Director, Texas Center for GIScience, Texas State Department of Geography Travel Committee (Chair), Department Colloquium and Professional Workshops Coordinator, Leader of the Workshop on Academic Job Preparation (for graduate students of the department)

2008-2009 Associate Director, Texas Center for GIScience, Texas State Department of Geography Travel Committee (Chair), Remote Sensing Hiring Committee (Chair), Leader of the Workshop on Academic Job Preparation (for graduate students of the department)

2006-2007 Associate Director, Texas Center for GIScience, Texas State Department of Geography Travel Committee (Chair), Equipment Committee, Human Dimensions of Environmental Geography Hiring Committee (Chair), Leader of the Workshop on Academic Job Preparation (for graduate students of the department)

2005-2006 Associate Director, Texas Center for GIScience, Texas State Department of Geography Travel Committee (Chair), Graduate Committee

2004-2005 Texas State Department of Geography Travel Committee (Chair), Graduate Committee, GIScience Hiring Committee

2003-2004 Texas State Department of Geography Travel Committee (Chair), Graduate Committee, GIScience Hiring Committee

2002-2003 SWT Department of Geography Travel Committee (Chair), Library Committee (Secretary), Cartography and Visualization Hiring Committee, Working group to establish a Center of Geographic Information Science

2001-2002 SWT Department of Geography Travel Committee (Chair), Colloquium Committee (Secretary), GIScience and Water Resources Hiring Committee, GIScience Hiring Committee, Working Group to Establish a B.S. in Geography - Water Resources Degree

COLLABORATORS IN THE LAST 48 MONTHS

George Allen, Texas A&M
R.Edward Beighley, Northeastern
Toby Breckon, Durham
Patrice Carbonneau, Durham
James Dietrich, Dartmouth
Stephen Dugdale, Quebec
Mike Durand, Ohio State
Renato Frasson, North Carolina
Pierre-andré Garambois, INRAE
Mark Hagemann, Ohio State
Kevin Larnier, IMT
Eric Levenson, Oregon
Christine Lion, PSM
Hitoshi Miyamoto, SIT
Brandon Overstreet, USGS
Tamlin Pavelsky, North Carolina
Joseph Mangano, USGS
Josh Roering, Oregon
Christina Shintani, Oregon
Stephen Tuozzolo, Ohio State
Dion Webster, Oregon
Amy Woodget, Loughborough
Xiao Yang, UNC
Aaron Zettler-Mann, Oregon

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Association of American Geographers
American Geophysical Union
Geomorphology Specialty Group AAG
Water Resources Specialty Group AAG
Remote Sensing Specialty Group AAG
Biogeography Specialty Group AAG
Mountain Geography Specialty Group AAG

ADDITIONAL ACTIVITIES

2007 Wrote “SATS” – a simple alpine treeline simulator that models the changes in alpine treeline position and structure with changes in various controlling factors in a simple spreadsheet format

2006 Wrote “The Cellular Treeline Simulator” - computer software that simulates the changes in alpine treeline position and structure with changes in various controlling factors

2003 Wrote “TreeFlow” - computer software that allows prediction of woody debris transport through Yellowstone streams

2002 Wrote “HAB-1” and “HAB-2” - computer software that allow estimation of water depths in an image using associated stream gage data

2001 Wrote “ISOVELS” - computer software that predicts spatial velocity distributions in a river section

2000 Wrote “The Stream Power Engine” - computer software that predicts the downstream variation in stream power based on the geometry of river form

REFERENCES

Dr. W. Andrew Marcus
Professor Emeritus, Department of Geography
University of Oregon
Eugene, OR 97403-1251 USA
(541) 346-3902
marcus@uoregon.edu

Dr. Patricia McDowell
Professor Emeritus, Department of Geography
University of Oregon
Eugene, OR 97403-1251 USA
(541) 346-4567
pmcd@uoregon.edu

Dr. Richard A. Marston
Past-co-editor-in-chief, Geomorphology, and
Professor Emeritus, Department of Geography
Kansas State University
Manhattan, KS 66506-2904
(785) 532-6727
rmarston@k-state.edu

Last Updated October 7, 2021