

August 2014

**Curriculum Vitae
Kory M. Konsoer**

Department of Geography and Anthropology
227 Howe-Russell-Kniffen Geoscience Complex
Louisiana State University
Baton Rouge, LA 70803
kkonsoer@lsu.edu

ACADEMIC TRAINING

B.S. – Grand Valley State University, Allendale, Michigan, 2006, Geology, Minor – Mathematics
M.S. – West Virginia University, Morgantown, West Virginia, 2008, Geology
Ph.D. – University of Illinois, Urbana-Champaign, IL, 2014, Geography

RESEARCH INTERESTS

My research interests are primarily focused on the morphodynamics of channelized flows, with emphasis on field studies examining the complex interactions between turbulent flow fields, sediment transport, and channel form. My research within this area has focused specifically on hillslope-channel coupling and sediment routing in high gradient streams, the influence of vegetation on turbulence and bank erosion in meandering rivers, flow turbulence along the shear layer/mixing interface at channel confluences, and hydraulic geometry analysis of channelized flows by comparing fluvial, submarine, and extraterrestrial environments.

Vital to these topics is the employment and development of new state-of-the-art technologies that allow for obtaining high spatial and temporal resolution data. Understanding the morphodynamics of channelized flows has applications in many fields, including geology, geomorphology, ecology, and engineering. Using an interdisciplinary approach to study these systems allows for a more comprehensive examination of how the physical processes governing channelized flows modify the landscape through erosion and deposition, and improves our ability to interpret depositional environments from the rock record.

FACULTY POSITIONS

Aug 2014 – present Assistant Professor, Department of Geography and Anthropology
Louisiana State University

OTHER TEACHING EXPERIENCE

2009-2011 Teaching Assistant, Department of Geography and Geographic Information Sciences,
University of Illinois, Urbana-Champaign
2006-2008 Teaching Assistant, Department of Geology
West Virginia University

RESEARCH ASSISTANTSHIPS

- 2010-2014 Research Assistant, Department of Geography and Geographic Information Sciences,
University of Illinois, Urbana-Champaign
- 2008 Research Assistant, Department of Geology
West Virginia University
- 2007-2008 Field Assistant, Canaan Valley Institute, West Virginia

PROFESSIONAL EXPERIENCE

- 2008-2009 Geologic Technician, Dominion Exploration and Production, Inc.
Jane Lew, West Virginia

FUNDED RESEARCH

- 2007 Geological Society of America, Graduate Student Research Grant – MS
- 2007 USGS EDMAP Program, LiDAR mapping in the Appalachian Mountains, MS
- 2010 Summer Research Grant – awarded by University of Illinois, Department of Geography
- 2011 Geological Society of America, Graduate Research Grant – PhD
- 2011 NSF – Doctoral Dissertation Research Improvement Grant – PhD

OTHER AWARDS

- 2006 Tremba Scholarship – awarded by Grand Valley State University, Department of Geology
- 2009 Foster Graduate Fellowship – awarded by University of Illinois, Department of Geography
- 2011 Conference Travel Grant – awarded by University of Illinois, Graduate College
- 2011 Conference Travel Grant – awarded by the Geological Society of America, North-Central Division
- 2011 Russell Graduate Fellowship – awarded by University of Illinois, Department of Geography
- 2012 SESE Research Review, University of Illinois, Second Place Presentation Award
- 2012 Schlesinger Travel Grant, University of Illinois – School of Earth, Society, and Environment
- 2013 SESE Research Review, University of Illinois, First Place Presentation Award
- 2013 Conference Travel Grant – awarded by University of Illinois, Graduate College
- 2014 Doctoral Student Paper Award – awarded by The Association of American Geographers

THESIS AND DISSERTATION

- 2008 LiDAR, GIS, and Multivariate Statistical Analysis to Assess Landslide Risk, Horseshoe Run
Watershed, West Virginia. (M.S. – West Virginia University) 129 p.
- 2014 Influence of riparian vegetation on near-bank flow structure and rates of erosion on a large
meandering river. (Ph.D. – University of Illinois, Urbana-Champaign) 218 p.

PUBLICATIONS

Konsoer, K.M., Zinger, J.A., and Parker, G., 2013. Bankfull hydraulic geometry of submarine channels created by turbidity currents: Relations between bankfull channel characteristics and formative flow discharge. *Journal of Geophysical Research – Earth Surface*, vol. 118, pp. 1-13 doi: 10.1029/2012JF002422

Konsoer, K.M., Rhoads, B.L., 2013. Spatial-temporal structure of mixing interface turbulence at two large river confluences. *Environmental Fluid Mechanics*, doi: 10.1007/s10652-013-9304-5

Konsoer, K.M., Kite, J.S., 2013. Application of LiDAR and discriminant analysis to determine landscape characteristics for different types of slope failures in heavily vegetated, steep terrain: Horseshoe Run watershed, West Virginia. *Geomorphology*, vol. 224, pp. 192-202.

Konsoer, K.M., Rhoads, B.L., Langendoen, E., Best, J.L., Ursic, M., Abad, J.D., Garcia, M.H., (2014) Spatial variability in floodplain resistance to erosion on a large meandering, mixed bedrock-alluvial river. (*submitted to: Geomorphology August 2014*)

Frias, C.E., Abad, J.D., **Konsoer, K.M.**, Best, J., Rhoads, B.L., Langendoen, E., and Garcia, M.H., 2013. *Modulation of the bank shear stress due to bedforms on a field scale: The Wabash River case.* (in preparation)

Zinger, J.A., **Konsoer, K.M.**, and Rhoads, B.L., 2013. *Analysis of shallow turbulent flows using the Hilbert-Huang transform: a tool for exploring the characteristics of turbulence and coherent flow structures.* (in preparation)

Konsoer, K.M., Rhoads, B.L., Best, J., Abad, J.D., Langendoen, E., Garcia, M.H., (2014). *Comparison of near-bank hydrodynamics in forested and non-forested meander bends on a large alluvial river.* (in preparation).

Konsoer, K.M., Rhoads, B.L., Best, J., Abad, J.D., Langendoen, E., Ursic, M., Garcia, M.H., (2014) *Investigation of scales of outer bank form roughness on a large meandering river with different floodplain vegetation: implications for near-bank flow structure and bank erosion.* (in preparation)

Conference Proceedings

Parker, G., Fu, X., Zhang, Y., Zinger, J. and **Konsoer, K.**, 2013. *Bedform regime diagram for rivers and turbidity currents: Conditions for the formation and obliteration of dunes.* Proceedings of 2013 IAHR Congress, Tsinghua University Press, Beijing.

Zinger, J.A., **Konsoer, K.M.**, and Rhoads, B.L., 2012. *Hilbert-Huang analysis of shallow flow velocity data.* Conference Proceedings from the 3rd International Symposium on Shallow Flows, June 4-6 2012, Iowa City, Iowa.

CONFERENCES

Konsoer, K.M., Best, J.L., Rhoads, B.L., Abad, J.D., Fazio, D., Frias, C.E., Garcia, M.H., and Langendoen, E., 2014. Dune kinematics in a large elongate meander bend. Geological Society of America, North-Central Section Meeting, Lincoln, NE.

Konsoer, K.M., Rhoads, B.L., Best, J.L., Langendoen, E., Abad, J.D., Ursic, M., and Garcia, M.H., 2014. Influence of bedrock control, bank materials, riparian vegetation, and planform geometry on the morphodynamics of a large meandering river. The Association of American Geographers Annual Meeting, Tampa, FL.

Rhoads, B.L., **Konsoer, K.M.**, Best, J., Garcia, M.H., and Abad, J.D., 2013. Planform dynamics of a mixed bedrock-alluvial meandering river. American Geophysical Union, Fall Meeting.

Konsoer, K.M., Rhoads, B.L., Best, J., Langendoen, E., Ursic, M., Abad, J.D., and Garcia, M.H., 2013. Scales of form roughness on riverbanks with different riparian vegetation. American Geophysical Union, Fall Meeting.

Abad, J.D., Frias, C.E., Langendoen, E., Best, J., Rhoads, B.L., **Konsoer, K.M.**, Garcia, M.H., 2013. Bedforms modulating temporal peaks on near-bank shear stresses, the Wabash River Case. American Geophysical Union, Fall Meeting.

Konsoer, K.M., Rhoads, B.L., Langendoen, E., Johnson, K., and Ursic, M., 2012. Influence of riparian vegetation on near-bank flow structure and erosion rates on a large meandering river. American Geophysical Union, Fall Meeting.

Konsoer, K.M., Rhoads, B.L., Langendoen, E., and Ursic, M., 2012. Influence of riparian vegetation and floodplain heterogeneity on the planform evolution of a large meandering river. Abstracts with Programs, 2012 GSA Annual Meeting, vol. 44, p. 421.

Konsoer, K.M., Zinger, J.A., and Parker, G., 2012. Comparing the hydraulic geometry of rivers, subaqueous channels, and extraterrestrial fluvial features. Abstracts with Programs, 2012GSA Annual Meeting, vol. 44, p. 464.

Konsoer, K.M., Zinger, J.A., Hernandez, J., Viparelli, E., and Parker, G., 2012, Relations for bankfull hydraulic geometry of sinuous channels in submarine and subaerial settings. AAPG Search and Discovery Article #90142, 2012 AAPG Annual Convention and Exhibition, April 22-25, 2012, Long Beach, California.

Konsoer, K.M., Rhoads, B.L., and Johnson, K.K., 2011. Spatial-temporal structure of mixing-interface turbulence at two large river confluences. American Geophysical Union, Fall Meeting, abstract #EP31E-0857.

Konsoer, K.M., Zinger, J.A., and Parker, G., 2011. Hydraulic geometry of sinuous channels: A comparison between submarine and subaerial environments. Abstracts with Programs, 2011 GSA Annual Meeting, vol. 43, No. 5, pp. 454.

Konsoer, K.M., Rhoads, B.L., and Johnson, K.K., 2011. Large-scale turbulence at confluences of large alluvial rivers. The Association of American Geographers, 2011 Annual Meeting, Seattle, WA, Apr. 15th, 2011.

Zinger, J.A., Rhoads, B.L., Best, J., Engel, F., and **Konsoer, K.M.**, 2010. Mobilization of floodplain sediments by chute cutoffs on a large river: Lower Wabash River, Illinois-Indiana. American Geophysical Union, Fall Meeting, abstract #EP31C-0753.

Konsoer, K.M., 2008. LiDAR, GIS, and multivariate statistical analysis to assess landslide risk, Horseshoe Run watershed, West Virginia. 8th Annual Geohazards in Transportation in the Appalachian Region, Technical Program. Aug. 5-7, 2008.

Downing, J.B., **Konsoer, K.M.**, Kite, J.S., 2007, LiDAR based surficial geology mapping in comparison to more traditional methods in the heavily vegetated Appalachian Mountains. Abstracts with Programs, 2007 GSA Annual Meeting, vol. 39, no. 6, pp. 161.

Konsoer, K.M., 2005, Comparison of suspended sediment loads between the Rogue River and Thornapple River, Grand Rapids, Michigan. Grand Valley State University, Student Scholarship Day.

Sessions Organized

2012 Channel morphology and hydraulic geometry of channelized flows: Linking observations from a variety of environments and scales. 2012 Geological Society of America Annual Meeting, Charlotte, NC, 4-7 November.

MANUSCRIPT REVIEWER

Journal of Geophysical Research – Earth Surface

PROFESSIONAL MEMBERSHIPS

Geological Society of America (2005-Current)
Association of American Geographers (2010-Current)
American Geophysical Union (2010-Current)

COLLABORATORS

Jorge Abad (University of Pittsburgh)
Jim Best (University of Illinois)
Devon Burr (University of Tennessee)
Marcelo Garcia (University of Illinois)
Kevin Johnson (US Geological Survey)
J. Steven Kite (West Virginia University)
Eddy Langendoen (USDA National Sedimentation Laboratory)
Gary Parker (University of Illinois)
Mauricio Perillo (University of Texas)

Drew Philips (Illinois State Geological Survey)
Bruce Rhoads (University of Illinois)
Jessica Zinger (University of Illinois)

GRADUATE ADVISORS

M.S. J. Steven Kite (West Virginia University)
Committee – Steve Kite, Bob Behling, Mike Strager

Ph.D. Bruce Rhoads (University of Illinois)
Committee – Bruce Rhoads, Jim Best, Marcelo Garcia, Gary Parker

TECHNICAL SKILLS:

- acoustic Doppler current profilers (ACDP) – large boat-mounted and tagline catamaran systems
- acoustic Doppler velocimeters (ADV) – field and laboratory
- Multi-beam echo sounders (MBES) – data acquisition and post-processing
- Light Detection and Ranging (LiDAR): ground and aurally based
- Real Time Kinematic – GPS
- Total Station Surveying
- Sediment/soil characterization: grain size distribution via sieving, hydraulic conductivity, shear strength via bore hole shear tests, bulk density, cohesiveness and erodibility via hydraulic jet tests
- ArcGIS
- MatLab – Special Training Course
- Ground Penetrating Radar (GPR) – shallow seismic of aurally exposed features
- Parametric Echo Sounding (PES) – shallow seismic through water column
- Flow modeling softwares: i.e. HEC-RAS, iRIC
- Trained and operated work boats as large as 20 feet in length