# **Robert Thomas Pavlowsky**

Distinguished Professor of Geography, Missouri State University Director, Ozarks Environmental and Water Resources Institute

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### EDUCATIONAL BACKGROUND

- Ph.D., 1995, Geography (minor in Geology), University of Wisconsin-Madison, Madison WI.
   Dissertation: Spatial variability of mining-related zinc and lead in fluvial sediments, Galena Watershed, Wisconsin-Illinois
   Advisor: James C. Knox (University of Wisconsin-Madison, deceased 2012)
- M.S., 1989, Geography, Rutgers University, New Brunswick NJ;
   Thesis: Trace Metal Yields and Sources in the Raritan Basin, New Jersey
   Advisor: William H. Renwick (Emeritus at Miami University of Ohio)
- B.S., 1981, Natural Resource Management (Wildlife Science), Cook College (Rutgers University), NJ -Rutgers University Scholar-Athlete Award 1980 and 1981, Wrestling Team;

# **EMPLOYMENT HISTORY**

Distinguished Professor: 8/15 to present, Missouri State University (MSU), Springfield, MO Full Professor (geography): 8/07 to 8/15, MSU Director, Ozarks Environmental and Water Resources Institute, MSU: 3/05 to present Associate Professor (geography): 8/01-8/07, MSU Assistant Professor (geography): 8/97-8/01, MSU Lecturer (geography): 1/97-7/97, MSU. Assistant Professor (geography): 8/93-12/96, Carthage College, Kenosha WI Lecturer (physical geography): 8/92-5/93, University of Wisconsin Center-Rock County, Janesville WI Lecturer (physical geography): 6/92-8/92, University of Wisconsin-Madison (UWM), Madison, WI Teaching Assistant (water analysis laboratory): 9/91-1/92, Dept. of Civil and Env, Engineering, UWM Associate Research Specialist (water chemistry): 6/90-6/91, Dept. of Civil and Env, Engineering, UWM Teaching Assistant (physical geography): 9/87-6/90, Dept of Geography, UWM Field Engineer (soils): 5/87-8/87, Mellick and Tully Associates, South Bound Brook, NJ Environmental Specialist: 11/86-4/87, Passaic River Coalition, Basking Ridge, NJ Graduate Assistant: 5/85-11/86, Center for Coastal and Environmental Studies, Rutgers University, NJ Laboratory Technician: 10/84-2/85, Bio Dynamics, Inc., Somerset NJ Teaching Assistant (general biology): 9/83-8/84, Boston College, Chestnut Hill, MA High School Teacher (biology): 9/81-8/83, Rutgers Preparatory School, Somerset NJ Wildlife Biologist: 6/81-9/81, NJ Div. of Fish, Game, and Wildlife, Higbee Beach Wildlife Management Area

### AWARDS

2016:

| 2015: | College- Excellence in Service Award  |
|-------|---|
| 2014: | University- Professor Salary Incentive Award (to top 30 professors on campus)             |
| 2014: | Atwood Award for Excellence in Research and Teaching Award (highest honor in the college) |
| 2014: | College- Excellence in Teaching Award   |
| 2013: | University- Excellence in Public Affairs Award  |
|       |   |

College- Excellence in Research Award

- 2013: College- Excellence in Research Award
- 2003: College- Excellence in Service Award
- 2003: Graduate College- Outstanding Graduate Mentor-nomination
- 2003: Graduate College- Outstanding Thesis Advisor
- 2002-05: University- Fellow in Research
- 2001: University- Excellence in Research Award
- 1999: University- Summer Fellowship

### LEADERSHIP AND SERVICE (selected examples)

#### **University Service**

Member, Academic Sustainability Committee 2016-17

Member, Executive Budget Committee 2015

Director/PI, Cooperative Unit for Research and Program Assistance for USACE, August 2014 to present

Chair, Budget and Priority Committee, Faculty Senate, August 2014-2017.

Member, Environmental Management Policy Panel 2013-17

Member, Sustainability Minor Committee, MSU, 2011-13

Technical Leader, Great Rivers, Cooperative Ecosystems Studies Unit, 2003 to 2007

Environmental Focus Committee, Fall 2000-Spring 2003

Member, Graduate Council, 1998-2002 & 2011-13 Member, Graduate Council, Graduate Faculty Membership Committee, 2011-12 Chair, Graduate Council Grievance Committee (1998-2000) Member, Graduate Council Awards Committee (2001)

Member, Professional Education Unit (1997 to present); Member, Committee for Goals 2000 GGP (1997-98) Chair, NCATE reaccreditation self-study, Category IV sub-committee (1997-98)

### **College Service**

Member, College Budget Committee, 2013-14 & 2015-16

Chair, Reappointment, Tenure, and Promotion Committee for civil engineering faculty

Masters in Natural and Applied Science and Masters in Administrative Studies-Environmental Management Oversight Committee, CNAS, 2011-13

Member, Bull Shoals Field Station Committee, CNAS, 2011-present

Member, Professional Science Masters Program grant and planning committee, 2009-12

Member, Engineering Program faculty search committee, Fall 2009-Spring 2010

PI/Chair, CNAS Committee to host a National Park Service unit (Aqua-Pod), 2003-04

Graduate Coordinator, Environmental Management option-MS program in Administrative Studies (1999-2006)

### **Department Service**

Department lecture series planning committee, 2016-present

Chair, Reappointment, Tenure, and Promotion Guideline Revision Committee, 2013-14

Graduate Director, Resource Planning/Geospatial Science MS Program, Spring 1999 to 2013

Chair, Promotion and Tenure Committee, Department of Geography, Geology, and Planning, 2008-10

Member, Geography Curriculum Planning Committee, 2008-present

Chair, Geography PhD Program Proposal Committee, 2004

Major Advisor for Geography-Natural and Environmental Resources Option (Track B)

Member, Professional Education Unit

Search Committees: 4 as chair for OEWRI, 2 as chair for GGP, and 6 as member for GGP/ENG

### **Professional Service**

Member, Water Resources Specialty Group Awards Committee, Association of American Geographers (AAG), 5-15 to 4-17

Executive Committee (Past President), Geomorphology Specialty Group, AAG, 2013-16

Chair, Geomorphology Specialty Group, AAG, 2012-13

Secretary-Treasurer, Geomorphology Specialty Group, AAG, 2011

Chair, Awards Committee, Geomorphology Specialty Group, AAG, 2005

Member of Awards Committee, Geomorphology Specialty Group, AAG, 2003-2005

### Outreach

Jamaican TV Interview on beach erosion, January 8, 2016, NewsWatch, CVM TV, Treasure Beach, Jamaica.

KSMU Radio interview and theme shows

"STEM Spots" Water quality issues in the Ozarks, by David Cornelison, August 2015 Water quality in the Ozarks by Scott Harvey, May 2014 Water quality in the Ozarks, MSU radio station, by Andrea Mostyn, September 2008 "Studio Live" call-in program on water quality, December 2005

Worked with the Upper White River Basin Foundation to create and be part of a DVD video: "White River Heritage: Guarding the Treasure," Summer and Fall 2007.

Member, Water Future Committee for Southwest Missouri, Spring 2008 to present

Member, Technical committee, Little Sac Watershed Management Plan Advisory group, Watershed Committee of the Ozarks. 2008-14

Member, Fly Ash Storage and Citizen Advisory Group for the Fly Ash Storage and Water Quality Protection Project, Springfield City Utilities, September 2014 to 2016.

Member, Midwest Science Advisory Council, National Fish Habitat Action Plan, Region 3-US Fish and Wildlife Service. October 2009 to December 2013

Member, Springfield Urban 319 Project Steering Committee

**Conference Planning Committees** 

Member, Sustaining our Water Supply, Darr Center, MSU, Springfield, MO, November 14-15, 2013.
 Also this committee for 2014 and 2015
 Member, Conference planning committee, Ozarks Summit, MSU, Springfield, MO, June 12-14, 2012.

# PUBLICATIONS

### **Peer-review Articles**

Lecce, S.A., and R.T. Pavlowsky, 1997. *Storage of mining-related zinc in floodplain sediments, Blue River, Wisconsin:* Physical Geography, 18(5):424-439.

Lecce, S.A., and R.T. Pavlowsky, 2001. Use of mining-contaminated sediment tracers to investigate the timing and rates of historical floodplain sedimentation: Geomorphology, 38:85-108.

Lecce, S.A., and R.T. Pavlowsky, 2004. Spatial and Temporal Variations in the grain-size characteristics of historical floodplain deposits, Blue River, Wisconsin, USA: Geomorphology 61(3/4):361-372.

Nickolotsky, A., and R.T. Pavlowsky, 2007. *Morphology of step-pools in a wilderness headwater stream: the importance of standardizing geomorphic measurements:* Geomorphology 83 (3-4):294-306.

Lecce, S., R.T. Pavlowsky, and G. Schlomer, 2008. *Mercury contamination of active channel sediment and floodplain deposits from historical gold mining at Gold Hill, North Carolina, USA*: Environmental Geology 55:113-121.

Pavlowsky, R.T., S.A. Lecce, G. Bassett, D.J. Martin, 2010. Legacy Hg-Cu Contamination of Active Stream Sediments in the Gold Hill Mining District, North Carolina. Southeast Geographer, 50 (4):503-522

Owen, M.R., and R.T. Pavlowsky, 2011. *Base flow hydrology and water quality of an Ozarks spring and associated recharge area, southern Missouri, USA*. Environmental Earth Sciences 64:169-183.

Owen, M.R., R.T. Pavlowsky, and P.J. Womble, 2011. Historical disturbance and contemporary floodplain development along an Ozark river, southwest Missouri. Physical Geography 32(5):423-444.

Martin, D.J., and R.T. Pavlowsky, 2011. Spatial patterns of channel instability along an Ozark river, southwest Missouri. Physical Geography 32(5):445-468.

Lecce, S.A., R.T. Pavlowsky, G.S. Bassett, and D.J. Martin, 2011. Metal contamination from gold mining in the Cid District, North Carolina. Physical Geography 32(5):469-495.

Witt III, E.C., D.J. Wronkiewicz, R.T. Pavlowsky, and H. Shi, 2013. Trace metals in fugitive dust from unsurfaced roads in the Viburnum Trend resource mining District of Missouri—Implementation of a direct-suspension sampling methodology. Chemosphere 92:1506-1512.

Pavlowsky, R.T., 2013. Coal-tar pavement sealant use and polycyclic aromatic hydrocarbon contamination in urban stream sediments. Physical Geography 34(4-5):392-415.

Lecce, S.A., and R.T. Pavlowsky, 2014. Floodplain storage of sediment contaminated by mercury and copper from historic gold mining at Gold Hill, North Carolina, USA. Geomorphology 206: 122-132.

Witt III, E.C., H. Shi, D.J. Wronkiewicz, and R.T Pavlowsky, 2014. Phase partitioning and bioaccessibility of Pb in suspended dust from unsurfaced roads in Missouri—A potential tool for determining mitigation response. Atmospheric Environment 88:90-98.

Pavlowsky, R.T., 2015. Response to "Comment on 'Coal tar pavement sealant use and polycyclic aromatic hydrocarbon contamination in urban stream sediments' in Physical Geography 34(4–5): 392–415" by T. D. Gauthier and R. P. DeMott. Physical Geography 36(1):87-92.

Wang, C., R.T. Pavlowsky, Q. Huang, and C. Chang, 2016. Chanel bar feature extraction for a miningcontaminated river using high-spatial multispectral remote-sensing imagery. GIScience & Remote Sensing 53(3):283-302.

Martin, D.J., R.T. Pavlowsky, and C.P. Harden, 2016. Reach-scale characterization of large woody debris in a low-gradient, Midwestern U.S.A. river system. Geomorphology 262:91-100.

### **Proceedings and Edited Articles**

Pavlowsky, R.T., 1992. Spatial distribution of metal pollution in the Raritan Basin: In, G.M. Ashley and S.D. Halsey (eds.), <u>Environmental Geology of the Raritan Basin</u>: Field Guide and Proceedings, Ninth Annual Meeting of the Geological Association of New Jersey, October 30-31.

Pavlowsky, R.T., 1992. Sediment-associated and dissolved metal loadings in the Raritan River: In, G.M. Ashley and S.D. Halsey (eds.), <u>Environmental Geology of the Raritan Basin</u>: Field Guide and Proceedings, Ninth Annual Meeting of the Geological Association of New Jersey, October 30-31.

Renwick, W.H., G.M. Ashley, R.T. Pavlowsky, and G.H. Haag, 1992. *Spatial distribution of metal pollution in the Raritan Basin:* In, G.M. Ashley and S.D. Halsey (eds.), <u>Environmental Geology of the Raritan Basin</u>: Field Guide and Proceedings, Ninth Annual Meeting of the Geological Association of New Jersey, Oct 30-31.

Pavlowsky, R.T., 1996. Fluvial transport and long-term mobility of mining-related zinc: In, <u>Tailings and Mine</u> <u>Waste '96</u>, Proceedings of the second international conference on tailings and mine waste '96, Fort Collins, CO, January 17-20. A.A. Balkema Publishers, Rotterdam.

Pavlowsky, R.T., 1996. Mining sediment tracers of river sedimentation: 1997 McGraw-Hill Yearbook of Science and Technology.

Pavlowsky, R.T., 1997. *Physical geography and river management of the Pike Watershed:* Field Trip Guide, West Lakes Division Association of American Geographers 48th Annual Meeting at Carthage College, October 9-11, Kenosha, WI.

Cammack, R.G., and R.T. Pavlowsky, 2001. *Internet mapping: a communication pathway to environmental quality research:* In, Mapping the 21st Century: Proceedings of the 20th International Cartographic Conference, 4:2330-2336, August 6-10, Beijing, China.

Horton, K., and R.T. Pavlowsky, 2004. Assessment of recreation impacts on wilderness campsites, Mark Twain National Forest, Missouri: In, K. Bricker and S.J. Millington (eds.), Proceedings of the 2004 Northeastern Recreation Research Symposium, March 28-30, 2004, Bolton Landing, New York. General Technical Report NE-326,USDA Forest Service, Northeastern Research Station.

Pavlowsky, R.T., 2004. *Urban impacts on Ozarks Streams:* In, <u>Self Sustaining Solutions for Streams</u>, <u>Watersheds, and Wetlands</u>, Proceedings of the September 2004 Conference, American Society of Agricultural Engineers.

Pavlowsky, R.T., 2008. *Ozarkers depleting groundwater*, Invited article for Springfield News-Leader, September 20, 2008.

Pavlowsky, R.T., M.R. Owen, and R.A. Bradley, 2016. Recent increase in extreme rainfall amounts in the Big Barren Creek Watershed, S.E. Missouri. Missouri Natural Areas Newsletter 16(1): 19-24.

# **Technical and Professional Reports**

Pavlowsky, R.T., 2000. *Watershed Restoration Action Strategy for Wilson Creek:* Technical report to the Missouri Department of Natural Resources, Jefferson City, MO.

Martin, L., and R.T. Pavlowsky, 2000. *Introductory Physical Geography Laboratory Manual-GRY 142 (1<sup>st</sup> Edition):* Southwest Missouri State University, Springfield, MO.

Pavlowsky,R.T., 2003. *Channel stability and water quality report, Gans and Clear Creeks, Phillips Property, Boone County, Missouri*: In, <u>Philips Farm Water Resources Impact Assessment Report</u> prepared by Wright Water Engineers, Allstate Consultants, and MEC Water Resources.

Owen, M., and R. Pavlowsky, 2007. Quality assurance project plan for: water quality monitoring and analysis of the Bennett Spring watershed and recharge area (OEWRI QA07-001), February 20, 2007.

Pavlowsky, R., J. Steiert, D. Gouzie, B. Gerik, and S. Armstrong, 2007. Finley Creek baseline water quality monitoring project final report (OEWRI EDR-07-002), March 16, 2007.

Miller, R., R. Biagioni, and R. Pavlowsky, 2007. Jordan Creek baseline water quality project (OEWRI TR06-003), March 19, 2007.

Hoggard, H., and R. Pavlowsky, 2007. Quality assurance project plan for: nonpoint source and water quality trends in the Pearson Creek watershed (OEWRI QA07-002), February 20, 2007.

Pavlowsky, R., 2007. Geomorphic analysis of the main channel of the Golf Club of Kansas Site in Lenexa, Kansas. Final report to Olsson Associates, Springfield, Missouri. May 22, 2007.

MEC Water Resources. Inc, and OEWRI (R. Pavlowsky), 2007. Southwest Missouri water quality improvement project (WQIP): James River basin water quality gap analysis. Final report to the Environmental Resources Coalition, Jefferson City, Missouri, October 2007.

Owen, M., M. Gossard, and R. Pavlowsky, 2007. Pre-construction report for the Ward Branch stream restoration project (OEWRI EDR-07-004). Phase one final report to Greene County, Missouri, November 14, 2007.

Hoggard, H., and R. Pavlowsky, 2008. Quality Assurance Project Plan for Suspended Sediment and Dissolved Solid Transport in the James River, SW Missouri, September 2008.

Hoggard, H., and R. Pavlowsky, 2008. Quality Assurance Project Plan for City of Springfield, Missouri MS4 Permit Monitoring Program In support of the City of Springfield's MS4 Storm Water Permit: MO-0126322 October 2008.

Hoggard, H., and R. Pavlowsky, 2008, Quality Assurance Project Plan for Nonpoint Source and Water Quality Trends in the Pearson Creek Watershed, April 2008.

Pavlowsky, R., 2008. *Geomorphic Assessment of Ravenwood Creek Lake Springfield Park, Springfield, Missouri*, Final report to Olsson Associates, Springfield, Missouri, May 2008. OEWRI TR-08-001

Owen, M. R. and R.T. Pavlowsky, 2008. Ward Branch Stream Restoration Project Post-Construction Assessment and Final Report. OEWRI EDR-08-004.

Owen, M. R. and R.T. Pavlowsky, 2008. *Final Report for the Water Quality Monitoring and Analysis of the Bennett Spring Watershed and Recharge Area*. OEWRI EDR-08-005.

Owen, M. R., R.T. Pavlowsky and G. Muchiri, 2008. *Progress Report for Sources and Reductions of Storm Water Runoff in the James River Basin*. OEWRI EDR-08-006.

Pavlowsky, R., 2008. Geomorphic Assessment of City Center Athletic Club Development Impacts on Existing Stream Channel Stability, Lenexa, KS. Final report to Olsson Associates, Springfield, Missouri, December 2008. OEWRI TR-08-002.

Martin, D., and R. Pavlowsky, 2008. *Water Quality Gap Report for Spring River*. Final report to Midwest Environmental Consultants, Columbia, MO, funded by USEPA.

Martin, D., and R. Pavlowsky, 2008. *Water Quality Gap Report for Elk River*. Final report to Midwest Environmental Consultant, Columbia, MO, funded by USEPA.

Martin, D., and R. Pavlowsky, 2008. *Water Quality Gap Report for Sac River*. Final report to Midwest Environmental Consultant, Columbia, MO, funded by USEPA.

Owen, M.R., J. Duzan, R.T. Pavlowsky, M. Burton, T. Dewitt, C. Wallace, D. Gisselbeck, S. Hefner, 2009.. *Nutrient Transport and Fate from Municipal Biosolids Land Application*. Completed for the City of Springfield, Missouri. December 7, 2009.

Pavlowsky, R.T. and M.R. Owen. *Geomorphic Analysis of Lackman Tributary, Lenexa, KS*. Final report to Olsson Associates for the City of Lenexa, Kansas. October 28, 2009.

Pavlowsky, R.T. and M.R. Owen, 2009. *Geomorphic Assessment of Galloway Branch in Sequiota Park, Springfield, Missouri*. Final report to Olsson Associates for the City of Springfield, Missouri. April 24, 2009.

Pavlowsky, R.T. and M.R. Owen, 2009. *Geomorphic Assessment of City Center Athletic Club Development Impacts on Existing Stream Channel Stability, Lenexa, KS*. Final report to Olsson Associates for the City of Lenexa, Kansas. January 5, 2009.

Pavlowsky, R.T. and Derek J. Martin, 2009. *River Channel Stability and Sediment Characteristics in the Upper White River Basin*, Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-09-005. Final Report to Upper White River Basin Foundation, Branson, Missouri (October).

Pavlowsky, R.T., and D.J. Martin, 2010. River sediment quality of the upper White River Basin. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-10-001. Final Report to Upper White River Basin Foundation, Branson, Missouri (January).

Pavlowsky, R.T., M.R. Owen, and D.J. Martin, 2010. *Distribution, geochemistry, and storage of mining sediment in channel and floodplain deposits of the Big River system in St. Francois, Washington, and Jefferson Counties, Missouri*. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-10-002.Final Report to U.S. Fish and Wildlife Service, Columbia, Missouri (June)

Mickus, K.L., R.T. Pavlowsky, M.R. Owen, and P.J. Womble, 2010. DC-resistivity and ground penetrating radar investigation of the floodplain and gravel bars of the Big River, eastern Missouri. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-10-004. Final Report to U.S. Fish and Wildlife Service, Columbia, Missouri.

Pavlowsky, R.T., and M.R. Owen, 2010. Geomorphic *assessment of upper Wards Branch, Springfield, Missouri*. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-10-006.Final Report to Olsson Associates, Springfield, Missouri (August).

Owen, M.R., A. DeWitt, and R.T. Pavlowsky, 2010. *Nutrient transport and fate from municipal biosolids land application (Year 2 annual report)*. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-10-007.Final Report to City of Springfield, Missouri (December).

Owen, M.R. and R.T. Pavlowsky, 2011. *Final Technical Report for: Water Quality Monitoring and Load Reduction Evaluation from Residential Developments in Christian County, Missouri*. Completed for: James River Basin Partnership "Sources and Reductions of Storm Water Runoff in the James River Basin" EPA FY 2006 319.

Owen, M.R., R.T. Pavlowsky, and D.J. Martin, 2012. *Big River Mining Sediment Assessment Project Big River Borrow Pit Monitoring Project*. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-10-003. Final Report to U.S. Fish and Wildlife Service, Columbia, Missouri.

Pavlowsky, R.T. 2012. *Baseline study of PAH sources and concentrations in pond and stream sediments, Springfield, Missouri*. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-12-002. Final report to the City of Springfield.

Pavlowsky, R.T., 2012. Report on "Emergency use of municipal wastewater for gray water supply in Springfield" to Southwest Wastewater Treatment Plant, Springfield, August 29.

Owen, M.R., R.T. Pavlowsky and E. Kuehn (2013). *Historical Water Quality Data Analysis, Pearson Creek, Springfield, Missouri*. Ozarks Environmental and Water Resources Institute EDR-13-001. Prepared for the James River Basin Partnership. February 11, 2013.

Owen, M.R., R.T. Pavlowsky and E. Kuehn (2013). *Nonpoint Source Bank Erosion and Water Quality Assessment, James River at River Bluff Farm, Stone County, Missouri*. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-13-002. Prepared for the James River Basin Partnership. August 16, 2013.

Owen, M.R., R.T. Pavlowsky and E. Kuehn (2013). *Nonpoint Source Bank Erosion and Water Quality Impairment Assessment, James River at Rivercut Golf Course, Greene County, Missouri*. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-13-003. Prepared for the James River Basin Partnership. September 17, 2013.

Pavlowsky, R.T., 2013. Source allocation for lead-contaminated sediment in the Big River from two different mining sources in St. Francois and Washington Counties, Missouri. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-13-004. Draft report to the Department of Justice, contract DJJ-13W-ENR01-0474. November 2, 2013.

Pavlowsky, R.T., and M.R. Owen, 2013. *Stream Sediment Contamination in the Viburnum Trend in Crawford, Dent, Iron, Reynolds, and Washington Counties in Southeast Missouri: Channel Sediment Concentrations.* Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-13-005A. Draft Report to U.S. Fish and Wildlife Service, Columbia, Missouri.

Pavlowsky, R.T. and M.R. Owen (2013). *Indian Creek Fluvial Geomorphology Study, Olathe, Kansas*. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-13-006. Final report to Olsson Associates for the City of Olathe, Kansas. November 11, 2013.

Owen, M.R. and R.T. Pavlowsky (2013). *Asher Creek Water Quality Assessment, Greene and Polk Counties, Missouri*. Final Report, Completed for: Greene County Soil and Water Conservation District, Asher Creek Watershed 319 Project, G12-NPS-02. Ozarks Environmental and Water Resources Institute, Missouri State University, Springfield, MO, Report no. OEWRI EDR-13-007. December 17, 2013.

Pavlowsky, R.T. and M.R. Owen (2014). Geomorphic Assessment of South Creek between National and Campbell Avenue, Springfield, Missouri. Completed for: Olsson Associates, August 6, 2014.

Pavlowsky, R.T. and M.R. Owen (2014). *Geomorphic Assessment of South Creek between National and Campbell Avenue, Springfield, Missouri*. Completed for: Olsson Associates, August 6, 2014.

Owen, M.R. and R.T. Pavlowsky (2014). *Water Quality Assessment and Load Reductions for Pearson Creek, Springfield, Missouri*. Final Report, Completed for: James River Basin Partnership, Show-Me Yards Neighbors, Farms and Ranches 319 Project, February 24, 2014.

Owen, M.R., R.T. Pavlowsky and A. Mulling (2015). *Pre-Project Water Quality Monitoring for South Creek at Campbell Avenue and Kansas Expressway, Springfield, Missouri April 1, 2014 to March 31, 2015.* Completed for the City of Springfield, Missouri. April 29, 2015.

Owen, M.R., R.T. Pavlowsky and A. Mulling (2015). *South and Fassnight Creek Water Quality Assessment, January 2012-March 2015*. Completed for the Watershed Committee of the Ozarks supporting the Springfield Greene County Urban Watershed Stewardship 319 Grant. May 12, 2015.

Owen, M.R., R.T. Pavlowsky and A. Mulling (2015). *Water Quality Monitoring and Load Reduction Evaluation from Detention Basin Retrofits in Springfield, Missouri*. Completed for the Watershed Committee of the Ozarks supporting the Springfield Greene County Urban Watershed Stewardship 319 Grant. June 11, 2015.

Owen, M.R., R.T. Pavlowsky and K. Zelzer (2015). *Nonpoint Source Bank Erosion and Load Reduction along Wilson Creek below Farm Road 156, Greene County, Missouri*. Prepared for the James River Basin Partnership, June 25, 2015.

Owen, M.R. and R.T. Pavlowsky (2015). Nonpoint Source Bank Erosion and Load Reduction Assessment for the Pearson Creek 319 Riparian Corridor Easement Site 5377 E. Fox Grove Lane, Greene County, Missouri. Prepared for the James River Basin Partnership, July 30, 2015.

Pavlowsky, R.T., K. Zelzer, and K. Geier, 2015. *Historical Shoreline Changes and Beach Erosion Rates for Bluefields Beach Park, Westmoreland, Jamaica (2001-14)*. Completed for the Bluefields Fishers Friendly Society and Bluefields Environmental Protection Association, Bluefields, Westmoreland, Jamaica. December 15, 2016.

Owen, M.R., R.T. Pavlowsky, and Matt Thies (2016). Update to Water Quality Monitoring and Load Reduction Evaluation from Detention Basin Retrofits in Springfield, Missouri. OEWRI-EDR-016-002 Completed for the City of Springfield, February 16, 2016.

Pavlowsky R.T., M.R. Owen, and R.A. Bradley (2016). *Historical Rainfall Analysis for the Big Barren Creek Watershed, Southeast Missouri (1955-2015).* OEWRI-EDR-016-001 Prepared for U.S. Forest Service, Mark Twain National Forest, March 23, 2016.

Owen, M.R., R.T. Pavlowsky, E. Buyurgan, and S. Zeiger (2016). *Water Quality Modeling and Load Reduction Simulation of Nutrients and Sediment, Wilsons Creek Watershed, Springfield, Missouri.* OEWRI-EDR-016-002, completed for the James River Basin Partnership. May 10, 2016.

Pavlowsky, R.T. and M.R. Owen (2016). *Quality Assurance Project Plan (QAPP) for: Big River Lead Remediation Structure (BRLRS) Monitoring Project.* Completed for U.S. Environmental Protection Agency, Region VII. June 13, 2016.

Pavlowsky, R.T., M.C. Pierson, M.R. Owen, and J.C. Voss (2016). *Year 1 Annual Report for: Big River Lead Remediation Structure (BRLRS) Monitoring Project.* Completed for U.S. Environmental Protection Agency, Region VII. October 14, 2016.

Pavlowsky, R.T., and M.R. Owen (2016). *Stream sediment and floodplain soil contamination in the Viburnum Trend in Crawford, Dent, Iron, Reynolds, and Washington Counties in Southeast Missouri*. OEWRI-EDR-15-002. Completed for the U.S. Fish and Wildlife Service, 101 Park DeVille, Suite A, Columbia, MO 65203, November 14, 2016.

### **RESEARCH GRANTS**

### **External Grants**

Pavlowsky, R.T., 1990. Phase distribution and bioavailability of trace metals (Cd, Pb, Zn,) in fluvial sediments in mined and unmined basins in the Upper Mississippi Lead-Zinc District, Southwest Wisconsin-northwest Illinois: Geological Society of America, Grant No. 4526-90, \$600

Knox, J.C., and R.T. Pavlowsky, 1991. *Dispersal and storage of mining-related trace metals in historical and active sediments of the Galena River, Upper Mississippi Lead-Zinc District:* National Science Foundation Dissertation Grant No. SES-9104731, \$9,200.

Lecce, S.A., and R.T. Pavlowsky, 1997. *Lateral deposition and geochemical evolution of mining-related metals in floodplain sediments:* National Science Foundation Geography and Regional Science Program, \$65,841.

Pavlowsky, R.T., 2000. Influence of land use and riparian buffers on channel morphology and sediment properties, Little Sac Watershed, SW Missouri: Missouri Departments of Natural Resources and Conservation, Missouri Cooperative Agricultural Research Grant, \$72,000.
Pavlowsky, R.T., 2000. Little Sac Restoration Project: EPA Section 319 Nonpoint Source Program, \$12,000.

Pavlowsky, R.T., 2001. Spatial distribution, geochemistry, and sources of phosphorus and metals in bottom sediments in the James River Arm of Table Rock Lake: USGS Water Resources Grant, \$17,265.

Pavlowsky, R.T., 2001. *James River TMDL Monitoring Study:* Missouri Department of Natural Resources, \$100,000.

Pavlowsky, R.T., and M. Nowack (Resource Planning graduate student), 2001. *Web-based GIS for organic farm networking and farmland preservation:* Missouri Department of Agriculture, \$4,400.

Pavlowsky, R.T., 2001. *Valley Mill Reservoir Restoration Project*, EPA Section 319 Nonpoint Source Program, \$36,000.

Pavlowsky, R.T., 2002. James River TMDL Monitoring Study (Year 2), EPA, \$85,585.

Pavlowsky, R.T., 2003. *Little Sac Restoration Project-Extension:* EPA Section 319 Nonpoint Source Program, \$4,200.

Pavlowsky, R.T., 2003. Valley Mill Reservoir Restoration Project (1 year extension), EPA Section 319 Nonpoint Source Program, \$11,726.

Pavlowsky, R.T., 2003. Developing a Physical Habitat Characterization and Monitoring Protocol for NPS Heartland Inventory and Monitoring Network Rivers: National Park Service, \$68,977.

Pavlowsky, R.T., J. Havel, and J. Greene, 2004. Southwest Missouri State University-Aqua-Pod Host Proposal. National Park Service, \$1,970 per year.

Pavlowsky, R.T, and R. Biagioni, 2004. Jordan Creek Baseline Water Quality Project: City of Springfield/USACE, \$33,509.

Pavlowsky, R.T., 2004. *Ward Branch Channel Restoration Project:* Greene County/MoDNR/EPA Section 319 Nonpoint Source Program, \$67,000.

Pavlowsky, R.T., 2004, *White River Basin Watershed Initiative*: White River Basin Foundation/USEPA, \$53,893.

Pavlowsky, R.T., 2005, South Dry Sac River channel assessment: Watershed Committee of the Ozarks, \$9,576.

Pavlowsky, R.T., J. Steiert, and D. Gouzie, 2006. *Finley Creek Water Quality Baseline Project-Phase 1:* James River Basin Partnership, \$6,757.

Pavlowsky, R.T., 2006. James River Stormwater 319 Project: James River Basin Partnership/MoDNR/EPA Section 319 Nonpoint Source Program, 3 years, \$63,000.

Pavlowsky, R.T., 2006. Ozarks Environmental and Water Resources Institute (OEWRI) Start-up Workplan year 1: USEPA,3 years, \$495,000

Pavlowsky, R.T., 2006. Southwest Missouri Water Quality Improvement Project: Environmental Resources Coalition/Midwest Environmental Consultants, 2 .5 years, \$108,000

Pavlowsky, R.T., 2006. Bennett Spring recharge area water quality monitoring project: Center for Resource Planning and Management, Missouri Department of Natural Resources, 2 years, \$8,000.

Pavlowsky, R.T., 2007. Geomorphic River Assessment Project (GeoRAP). Olsson Associates, Springfield, MO. \$9,000.

Pavlowsky, R.T., 2007. Ozarks Environmental and Water Resources Institute (OEWRI) Start-up Workplan year 2, USEPA, 3 years, \$495,000

Pavlowsky, R.T., 2007. Ravenwood stream restoration project, Olsson Associates \$1,850.

Pavlowsky, R.T., 2007. Lenexa City Center Phase II, Lenexa, KS project, Olsson Associates. \$6,000.

Pavlowsky, R.T., 2007. Mercury contamination of floodplain sediments from historical gold mining in North Carolina (with S. Lecce at East Carolina University) National Geographic Society-Committee for Research and Exploration grant for \$19,581.

Pavlowsky, R.T., 2008. MS4 storm water quality monitoring, James River communities: Greene and Christian Co., Ozark, Nixa, & Republic (2008-2013), 5 years, \$200,000.

Pavlowsky, R.T., 2008. MS4 storm water quality monitoring-year 1, City of Springfield, 1 year, \$20,000

Pavlowsky, R.T., 2008. Biosolids Runoff Project-years 1 & 2, City of Springfield, \$82,000

Pavlowsky, R.T., 2008. Upper White River Basin geomorphology and land use assessment, Upper White River Basin Foundation, \$18, 000

Pavlowsky, R.T., 2008. Sequiota Park/Galloway Branch Geo-assessment Springfield, Missouri, Olsson Associates, \$5,000.

Pavlowsky, R.T., 2009. Big River mining sediment assessment project, U.S. Fish and Wildlife Service (via CESU), 2 years, 92K

Pavlowsky, R.T., 2009. Macroinvertebrate analysis for TMDL development, URSCorp, 2 years, \$36,000.

Pavlowsky, R.T., 2009. MS4 storm water quality monitoring-year 2, City of Springfield, \$20,000.

Pavlowsky, R.T., 2009. Geomorphic Assessment of Lackman Tributary, Lenexa, KS, Olsson Associates, \$8,000.

Pavlowsky, R.T., 2010. Springfield MS4/TMDL-year 3, City of Springfield, \$22,000.

Pavlowsky, R.T., 2010. Biosolids Runoff Project-year 3 continuation. City of Springfield, \$45,000.

Pavlowsky, R.T., 2010. Geomorphic Assessment of Upper Wards Branch, Springfield, Missouri. Olsson Associates, Springfield MO. \$6,000

Pavlowsky, R.T., 2010. Big River mining sediment assessment project-continuation, U.S. Fish and Wildlife Service (via CESU), 2 years, \$45,000.

Pavlowsky, R.T., 2011. Baseline study of PAH sources and concentrations in pond and stream sediments, Springfield, Missouri, 2 years, \$31,000.

Pavlowsky, R.T., 2011. Springfield/Green County Urban Watershed Stewardship 319 Project, USEPA/MDNR via Watershed Committee of the Ozarks, 4/11-3/15, \$150,240.

Pavlowsky, R.T., 2011. Taum Sauk Lower Reservoir Stream Discharge Assessment, Olsson Associates, Springfield, Mo., \$8,000

Pavlowsky, R.T., 2011. Springfield MS4/TMDL, 1 year, City of Springfield, \$22,000.

Pavlowsky, R.T., 2011. MS4 storm water quality monitoring, James River communities add-on for years 4 & 5, \$20,000.

Pavlowsky, R.T., 2012: Pearson Creek "Show Me" ranches and farms 319 project, James River Basin Partnership via 319 MDNR-USEPA, 2 yrs 64K.

Pavlowsky, R.T., 2012. James River Corridor enhancement assessment and model, James River Basin Partnership via 319 MDNR-USEPA 10K

Pavlowsky, R.T., 2012. Asher Creek 319 project, Greene County Soil and Water District via 319 MDNR-USEPA, 20K.

Pavlowsky, R.T., 2012. Viburnum Trend sediment contamination project, U.S. Fish and Wildlife Service (via CESU), 88K

Pavlowsky, R.T., 2012. Wilson Creek Riparian Assessment, James River Basin Partnership via 319 MDNR-USEPA, 2K

Pavlowsky, R.T., 2013. Indian Creek Geomorphology Study, Olathe, Kansas, Olsson Associates. Springfield, Mo., \$17,000.

Pavlowsky, R.T., 2013. Finley Creek riparian Assessment, James River Basin Partnership via 319 MDNR-USEPA, \$2,200.

Pavlowsky, R.T., 2013. James River-Greene County riparian Assessment, James River Basin Partnership via 319 MDNR-USEPA, \$4,300.

Pavlowsky, R.T., 2013. Springfield MS4/TMDL, City of Springfield, \$29,000.

Pavlowsky, R.T., 2013. MS4 storm water quality monitoring, James River communities, continuation for 5 years, \$270,000.

Pavlowsky, R.T., 2014. Source load assessment for historical mining lead contamination in the Big River, Department of Justice, \$18,000

Pavlowsky, R.T., 2014. Springfield MS4/TMDL monitoring (continuation), City of Springfield, \$31,000.

Pavlowsky, R.T., 2014. South Creek Discharge and Water Quality Monitoring Site. City of Springfield. \$8,000.

Pavlowsky, R.T. and M.R. Owen, 2014. Geomorphic assessment of the South Creek restoration site, Springfield, Missouri, Olsson Associates, \$3,000.

Pavlowsky, R.T. and M.R. Owen, 2015. MS4 monitoring and reporting services for Greene County, City of Nixa, and City of Battlefield, Missouri, \$18,000.

Pavlowsky, R.T. and M.R. Owen, 2015. Stormwater basin monitoring (post-construction period continuation). City of Springfield, \$14,000.

Pavlowsky, R.T. and M.R. Owen, 2015. Load reduction analysis for 319 riparian easement projects for Wilson and Pearson Creeks. James River Basin Partnership \$10,000.

Pavlowsky, R.T., 2015. Springfield MS4/TMDL monitoring (continuation), City of Springfield, \$26,000.

Pavlowsky, R.T., 2015. Big Barren Creek watershed monitoring project, US Forest Service, \$50,000

Pavlowsky, R.T., and M. Pierson, 2015. Big River riffle and basin structure monitoring project: 2015-18, USEPA Region 7, \$70,000.

Pavlowsky, R.T., 2015. Project management: Endangered Bat Survey at Fort Leavenworth, Kansas. USACE Kansas City District, Cooperative Agreement for Research and Program Assistance, Department of Defense, (ESI subcontractor), \$70,000.

Pavlowsky, R.T., 2015. Project management: Endangered Bat Survey at Fort Leonard Wood, Missouri. USACE Kansas City District, Cooperative Agreement for Research and Program Assistance, Department of Defense, (ESI subcontractor), \$205,000.

Pavlowsky, R.T., 2015. T&E Habitat Assessments, Former Machine Gun Range, Fort Leonard Wood, Missouri. USACE Kansas City District, Cooperative Agreement for Research and Program Assistance, Department of Defense, (with ESI as subcontractor), \$16,500.

Pavlowsky, R.T. and M.R. Owen, 2015. Technical assistance and water quality modeling for the Middle James River Watershed Management Plan. James River Basin Partnership \$28,000.

Pavlowsky, R.T., 2016. Big Barren Creek watershed monitoring project (year 2), US Forest Service, \$50,000

Pavlowsky, R.T., 2016. Springfield MS4/TMDL monitoring (continuation), City of Springfield, \$34,000.

Pavlowsky, R.T. and M.R. Owen, 2016. MS4 monitoring and reporting services for Greene County, City of Nixa, City of Ozark, and City of Battlefield, Missouri, \$21,000.

Pavlowsky, R.T., M.R. Owen, and P. Schweiger, 2016. Little Sac Watershed SWAT model to support watershed planning (319), Watershed Committee of the Ozarks, \$58,257.

Pavlowsky, R.T., and M.R. Owen, 2016. Wilson Creek Exfiltration Assessment Pilot Project. City of Springfield, \$14,891.

Barnhart, M.C., and R.T. Pavlowsky), 2016. Mussel surveying and assessment at Fort Leonard Wood, Missouri. USACE Kansas City District, Cooperative Agreement for Research and Program Assistance, Department of Defense, \$60,442.

Pavlowsky, R.T., 2016. North Fork of the White River and Mill Creek monitoring for Channel stability, sediment effects, and large wood structures. Monitoring Project, US Forest Service, \$27,000

Pavlowsky, R.T., 2016. Northern Long-eared bat Survey and Assessment at Fort Leonard Wood, Missouri (year 2). USACE Kansas City District, Cooperative Agreement for Research and Program Assistance, Department of Defense (with ESI as subcontractor), \$200,729.

Pavlowsky, R.T., 2016. Northern Long-eared bat Survey and Assessment at Fort Leavenworth, Kansas. USACE Kansas City District, Cooperative Agreement for Research and Program Assistance, Department of Defense (with ESI as subcontractor), \$55,837.

2017 (453K?) FLW Bat Survey, DOD, (ESI subcontractor), \$120,125 Lamar Lake Nonpoint Assessment, USDA-NRCS, \$35,000 James River Basin Management Plan and Modeling, \$97,000 Soil Disturbance Monitoring-MTNF, USDA-USFS, \$10,000 Wilson Creek 319, JRBP/DNR/EPA, \$63,000 Big Barren Creek watershed monitoring project, (year 3), US Forest Service, \$50,000 North Fork LWS Monitoring Project (year 2), US Forest Service, \$23,000 MS4-SGF, \$34,000 MS4-Greene Co, Nixa, Ozark, and Battlefield, \$21,000 Lamar Lake Watershed Assessment, \$36,000 (check)

### **University/internal Grants**

Pavlowsky, R.T., 1993. *Nonpoint pollution sources and contamination in the Pike River Watershed*: Carthage College Faculty Research Grant, \$675.

Pavlowsky, R.T 1994, *Metal contaminants in retention/detention pond systems:* Carthage College Faculty Research Grant, \$500.

Pavlowsky, R.T., 1995. *Sources, geochemistry, and environmental significance of Lower Pike River sediments:* Carthage College Faculty Research Grant, \$2,500.

Pavlowsky, R.T 1997. *Geography and Geochemistry of metal contaminants in river sediments, Spring River, Tri-State Zn-Pb District:* SMSU Faculty Research Grant, \$6,640.

Pavlowsky, R.T 1999. Sediment and Metal Contaminant Transport in the South Dry Sac Watershed, Greene County, MO: SMSU Faculty Research Grant, \$6,200.

Pavlowsky, R.T., 1999. Geographical Analysis of Missouri Floods: SMSU Summer Fellowship, \$5,000.

Pavlowsky, R.T 2002. Sediment Pollution History and Channel Changes in Wilson Creek: Implications for Water Quality Management, SMSU Faculty Research Grant, \$7,320.

Steiert, J., and R.T. Pavlowsky, 2007. Use of real-time Q-PCR to quantify sources of fecal pollution in Ozark streams. Missouri State University Research Incentive Grant collaboration between biology and geography, \$77,000.

Pavlowsky, R.T, and D. Gouzie, 2007: Co-PI, Missouri State University Graduate Student Recruitment Initiative Grant for the Geospatial Science MS program, \$3,150.

Wedenoja, W., and R.T. Pavlowsky, 2008. Bluefields environmental and Cultural collaboration among Geography, Anthropology, OEWRI, and the BPCA in Belmont, Westmoreland, Jamaica. Latin American Faculty Research Grant, \$5,000

Meints, G., and R.T. Pavlowsky, 2008. *Solid-State Nuclear Magnetic Resonance Research Facility*, Provost Research Incentive Program Grant, collaboration between Chemistry and Geography, total budget: \$190,000.

Pavlowsky, R., 2010. *Water quality and sediment sources in the Bluefields River, Westmoreland, Jamaica*. Faculty research grant, Graduate College, Missouri State University, \$5,700.

Pavlowsky, R.T., and D. Beckman, 2010. *Baseline survey of fish and habitat in Bluefields Bay, Jamaica, collaboration between Geography and Biology*. Latin American, Caribbean, and Hispanic Studies Faculty Development Grant, Missouri State University. \$5,000

Pavlowsky, R.T., 2012. Natural Resource Quality and Geotourism Opportunities in Treasure Beach, South Coast, Jamaica. Latin American, Caribbean, and Hispanic Studies Faculty Development Grant, Missouri State University. \$4,980

Pavlowsky, R.T, 2013. *Spatial analysis of shoreline land use and erosion along the south coast of Jamaica (1980-2012)*. Faculty Research Grant, Missouri State University, \$6,000.

Pavlowsky, R.T., 2015. Geomorphic classification of shoreline types in relation to substrate, vegetation, and erosion history, Galleon Fish Sanctuary, St. Elizabeth, Jamaica, \$5,900.

### **INVITED PRESENTATIONS**

Pavlowsky, R.T., 1991. *Importance of particle size-partitioned data for metal pollution assessments of river sediments:* Wisconsin Department of Natural Resources, Water Resources Statewide Meeting, March 6, Waupaca, WI.

Pavlowsky, R.T., 1997. *Wisconsin Rivers: Geomorphology and Management:* Geography Awareness Week, Department of Geography, Geology, and Planning, Temple Hall, SMSU, November 17, 1997.

Pavlowsky, R.T., 1999. Where's the silt! Agricultural settlement, mining contamination, and floodplain contamination in southwest Missouri watersheds. Department of Geography Colloquium Series, University of Missouri Columbia.

Pavlowsky, R.T., 2000. *Watershed research in Resource Planning*. James River Partnership meeting, SMSU campus.

Pavlowsky, R.T., 2000. *Human Impacts on channel stability and sediment quality in Ozark streams*. SMSU Department of Biology Seminars.

Pavlowsky, R.T., 2000. *Alluvial history of mining and agriculture in the Ozarks: a geographic perspective*. SMSU Department of Sociology and Anthropology, Interdisciplinary Colloquium on "Character, Characteristics, and Caricatures of the Ozarks."

Pavlowsky, R.T., 2000. *Environmental research report*. SMSU meeting for the "Life Sciences business/resources inventory for the state of Missouri."

Pavlowsky, R.T., 2000. *Water quality research and monitoring*. At the "Workshop to the drinking water source assessment and protection process," City Utilities, Springfield, MO.

Pavlowsky, R.T., and R. Cammack, 2000. *GIS applications in Watershed Management: Example from the SMSU Resource Planning Program*. DNR/EPA Watershed Conference, September, Lake of the Ozarks, Missouri.

Pavlowsky, R.T., 2000. *Watershed Research Projects in the SMSU Resource Planning Program*, James River Basin Water Quality Work group-Information Sharing Session. Coordinated by the James River Basin Partnership, Library Center, Springfield, Missouri.

Pavlowsky, R.T., 2000. *Phosphorus contamination in caves and streams of the James River Basin*. Geography Awareness Week, Department of Geography, Geology, and Planning, Temple Hall, SMSU, November 13, 2000.

Pavlowsky, R.T., 2001. *Report on the Little Sac Cooperative Grant Project at SMSU*. Monthly meeting of the Watershed Committee of the Ozarks, Springfield, Missouri.

Pavlowsky, R.T., 2001. Nonpoint pollution monitoring using bed sediment surveys in the Ozark Plateau Region. Department of Geography, University of Wisconsin-Milwaukee

Pavlowsky, R.T., 2001. *Fusion of GIS and photogrammetric tools to assess streambank erosion patterns*. Sixth Annual Missouri GIS Conference, March 26-28, Columbia, MO.

Pavlowsky, R.T., 2002. *Integrating environmental and public health issues across the curriculum*. 7th Showcase on Teaching, January 9, Southwest Missouri State University

Pavlowsky, R.T., 2002. *Geomorphic response of Ozarks streams to land use changes*. Department of Geography and Earth Science, University of Wisconsin-La Crosse, February 9, La Crosse, Wisconsin.

Pavlowsky, R.T., 2002. SMSU's Contributions to the Upper and Middle Mississippi Valley Cooperative Ecosystems Studies Unit. University of Missouri, Columbia, October.

Pavlowsky, R.T., 2003. *Phosphorus pollution in the James River: Report on recent monitoring activities*. SMSU Environmental Focus Forum on "Water Quality: Concerns and Realities in Southwest Missouri," April 23, Southwest Missouri State University

Pavlowsky, R.T., 2003. *Ozarks streams and their behavior*. Summer Seminar Series, Department of Chemistry, SMSU.

Pavlowsky, R.T., 2003. Upper and Middle Mississippi Valley Cooperative Ecosystems Studies Unit at SMSU, Office of Sponsored Research, 9/03

Pavlowsky, R.T., 2003. *Testimony on water quality issues*, Public hearing of the State of Missouri Interim Committee on Water Quality Issues, SMSU Campus, October 3<sup>rd</sup>..

Pavlowsky, R.T., 2004. *Geomorphic adjustments of Ozark streams to land use disturbance*, Annual Meeting of the Missouri Association of Professional Soil Scientists, January 28, 2004, Tan-Tar-A Resort, Lake of the Ozarks, Missouri

Pavlowsky, R.T., 2005. Workshop on *Advances in Ozark Stream Assessment*, Missouri Natural Resource Conference, February 2-4 2005, Tan-Tar-A Resort, Lake of the Ozarks, Missouri

Pavlowsky, R.T., 2005. *Water Quality Research at Missouri State University*, Environmental Workshop for the Army Research Office and Lincoln University, Ft. Leonard Wood, November 29-30, 2005.

Pavlowsky, R.T., 2006. *OEWRI: Introduction and Projects*: Rotary Club if Branson/Hollister, Missouri, October 25, Branson.

Pavlowsky, R.T., 2006. *River and Lake Sediment Contamination Trends in the James River Basin, Missouri: Applications for Nonpoint Source Assessments*, Arkansas Watershed Advisory Group (AWAG) annual conference, November 2006, Fayetteville, AR.

Pavlowsky, R.T., 2006. *OEWRI: Introduction and Projects:* Water Talk Watershed Group meeting, Dec, Crowder College, MO.

Pavlowsky, R.T., 2007. *Water quality problems in the Finley River*. James River Basin Partnership Board Meeting, Springfield Library-South, April 27, 2007.

Pavlowsky, R.T., 2007. Origin and causes of the Hawkins sinkhole collapse and its impacts on water quality in Sequiota Spring. Presentation to the City Utilities of Springfield, MSU Campus, February.

Pavlowsky, R.T., 2008. *Advising Strategies at the Graduate Level*. Academic Advisor Forum, February 7, Missouri State University.

Pavlowsky, R.T., 2008. Sediment geochemistry and its influence on water quality in Ozarks streams, Department of Chemistry seminar series, March 17, Missouri State University.

Pavlowsky, R.T., 2008. *OEWRI and Water Quality Issues*, Congressional testimony at the water quality meeting, March 19, College of the Ozarks, Hollister, Missouri.

Pavlowsky, R.T., 2008. *What do graduate students need to know to be successful?* Graduate Assistant Orientation, Graduate College, MSU Campus, August.

Pavlowsky, R.T., 2008. *The environmental legacy of the first US gold rush in 1799*. Geography Awareness Week, November 17.

Pavlowsky, R.T., 2008. *Historical alluviation and mining contamination in Little-Dutch Buffalo Creek, North Carolina Piedmont*. Seminar Series Presentation at Northwest Missouri University, December 2008.

Pavlowsky, R.T., 2009. Rutgers Colloquium Series: Geochemical geography: historical gold mining contamination of a river system in Piedmont North Carolina, Rutgers University, February 27, 2009.

Pavlowsky, R.T., 2009: GGP Seminar series: Large-scale contamination of river sediment in the Old Lead Belt, SE Missouri, Missouri State University, October 23, 2009.

Pavlowsky, R.T., 2009. *Big River Floodplain and Channel Sediment Transport: Southeast Missouri Lead Mining District*, NRDAR Trustees-USEPA Coordination Meeting, EPA Region 7, Kansas City, Kansas, June 12, 2009.

Pavlowsky, R.T., 2009. *Mining-contamination of river sediments: Report on Big River and other rivers: Tristate Zinc and Lead Mining District*, NRDAR Trustees-MODNR Coordination Meeting, Joplin, Missouri, July 22, 2009.

Pavlowsky, R.T., 2009. *Missouri S & T Geology Seminar Series: Dispersal and storage of mining sediment in the Old Lead Belt, SE Missouri*: Missouri University of Science and Technology, Rolla, Missouri, November 2, 2009.

Pavlowsky, R.T., 2010. *Lead mining and sediment contamination in the Big River*. Ozarks Mountain Paddlers, monthly meeting, July.

Pavlowsky, R.T., 2010. *Mining sediment deposited behind low head dams and within gravel bars in the Big River*. Trustee Councils of TriState, Missouri Southern University, Joplin, MO, September 14-15.

Pavlowsky, R.T., 2010. CNAS Academic Integrity Panel: Case studies of investigation in ethical behavior of scientists. Plaster Student Union, Missouri State University, October 5.

Pavlowsky, R.T., 2010. *Ground and surface water quality in the Ozarks: Conference on "Water:a finite resource in a growing region*. Hosted by the TriState Water Resource Coalition and Missouri State University. Springfield, MO, November 19, 2010.

Pavlowsky, R.T., 2011. *Climate change science: physics, chemistry, and biology*. Panel presentation and discussion of the science of climate change. Sponsored by Environmental Focus Committee and Office of Public Affairs, Missouri State University. March 3, 2011.

Pavlowsky, R.T., 2011. Lead contamination in Big River floodplains in Jefferson County, MO, Big River Watershed Group Meeting, Hillsboro Civic Center, August 23, 2011

Pavlowsky, R.T., 2012. Water quality concerns, trends, and progress in the James River, CNAS public lecture series Feb 14, 2012

Pavlowsky, R.T., 2012. Baseline study of PAH sources and concentrations in pond and stream sediments, Springfield, Missouri. City Council, Springfield, Missouri.

Pavlowsky, R.T., 2012. Panel presenter, *Drought Forum*, Watershed Committee of the Ozarks monthly meeting, Springfield, MO, September 7.

Iantria, L., R.T. Pavlowsky, and W. Kristos, 2013. *Bluefields Bay Area: charting its tourism destiny. Sustainable tourism development workshop*, Bluefields, Jamaica. January 8, 2013.

Pavlowsky, R.T., 2013. Urban stream management and water quality monitoring in the Springfield area, Annual conference of the Missouri Chapter of the American Public Works Association, University Plaza Hotel, Springfield, Mo.

Pavlowsky, R.T., 2013. Sediment PAHs, phosphorus, and metal contamination in urban streams draining Springfield, Missouri. Annual meeting of the Ozarks Chapter of the Institute of Transportation Engineers, Lake Springfield Boathouse, June 6.

Pavlowsky, R.T., 2013. *Ozarks geomorphology and physical stream assessment*. Ozarks Summer Watershed Academy, Watershed Center, Springfield, Missouri, July 15.

Pavlowsky, R.T., 2013. *Graduate Student Goals in the Sciences. Doing well in graduate school session*, New Graduate Student Orientation, Plaster Student Union, August 12.

Pavlowsky, R.T., 2013. *Mining contamination of alluvial sediments and management implications in the Big River, Old Lead belt, Missouri.* Special session on Sediment, Geomorphology, and Society, American Water Resources Association, Annual Water Resources Conference, Portland, OR, November 4-7.

Pavlowsky, R.T., 2013. *Ridge to reef watersheds and geotourism opportunities along Bluefields Bay, Jamaica*. Geography Awareness Week Lecture Series, Missouri State University, November 21.

Pavlowsky, R.T., 2013. *Spatial variability of PAHs in stream sediments in an urban karst watershed*. On-line presentation, United States Geological Survey Web-Ex Program, December 2.

Pavlowsky, R.T., 2014. *Management challenges due to geomorphic instability and climate change in Ozark River systems*. Missouri Natural Resources Conference, Special session on Multidisciplinary assessment and planning to meet future Missouri water needs in a changing climate. Tan-Tar-A Resort, Osage Beach, MO, February 5-7.

Pavlowsky, R.T., 2014. *Management challenges due to geomorphic instability and climate change in Ozark river systems*. Geotechnical Engineering Seminar Series, Department of Civil and Environmental Engineering, University of Missouri-Columbia.

Pitts, J., R.T. Pavlowsky, and T. Whaley, 2014. *Riparian protection and restoration: 4 years of progress*. Water Quality Coordinating Committee Meeting, Missouri Department of Natural Resources, Jefferson City, July 15.

Pavlowsky, R.T., 2014. Overview of Big River sediment contamination problems. Big River Task Force Meeting for the Big River, USEPA and USACE Meramec River Basing Urban Water Partnership, Saint Louis University, St. Louis, Missouri. September 26, 2014.

Pavlowsky, R.T., 2014. Geomorphic disturbance, mining contamination, and restoration of the Big River, Southeastern Missouri. Dept. Seminar Presentation to the Department of Earth and Atmospheric Sciences, Saint Louis University, St. Louis, Missouri. September 26, 2014.

Owen, M.R. and R.T. Pavlowsky, 2014. Decade of Watershed Science and Applications in Southwest Missouri. Water Challenges and Opportunities, A symposium in Celebration of 50<sup>th</sup> Anniversary of Missouri Water Resources Research Center. University of Missouri, Columbia. Sponsored by University of Missouri-Columbia, Advantage & the Chancellor's Distinguished Speakers Program, October 7-8, 2014.

Pavlowsky, R.T., 2015. OEWRI's role in solving nonpoint water quality problems in Ozark watersheds. Missouri Department of Natural Resources Nonpoint Source 319 Workshop, Osage Beach, Missouri, February 13-14.

Pavlowsky, R.T., 2015. Legacy sediment waves in channel and floodplain deposits of the Big River, southeast Missouri. Environmental Research Center Seminar Series, Missouri University of Science and Technology, Rolla Missouri, March 6.

Pavlowsky, R.T., 2015. Coral reef conservation, fish sanctuaries, and geotourism in Jamaica. Geography Awareness Week Lecture, November 20, Missouri State University, Springfield, MO.

Pavlowsky, R.T., 2015. Recent flood trends in the Ozarks. Watershed Committee of the Ozarks Monthly Meeting Lecture, December 4, Springfield, MO.

Pavlowsky, R.T., 2016. Shoreline changes and beach erosion in Bluefields Bay and Black Biver, South Coast Jamaica. Jakes Resort, Treasure Beach Saint Elizabeth, Jamaica, January 7, 2016.

Pavlowsky, R.T., 2016. Water quality monitoring. CNAS Interdisciplinary Research Seminar, Missouri State University, July 13..

Pavlowsky, R.T. 2016. Lessons from research: water and climate, recent flood trends in Ozark rivers. Water Futures Conference, Darr Center, MSU campus, Springfield, MO. October 20.

Pavlowsky, R.T., 2016. Water quality problems and possible solutions in Ozark streams. Library armchair series, November 30, South Campbell Library.

# **CONFERENCE PAPERS** (student awards highlighted since 2007)

Pavlowsky, R.T., 1987. *Evaluation of heavy metal sources and transport variation with the Raritan Basin, N.J.:* 22<sup>nd</sup> Annual meeting of the Northeast section of the GSA, March 4-7, Pittsburgh, PA.

Pavlowsky, R.T., 1988. *Trace metal transport in the Raritan River, NJ*. Association of American Geographers Annual Meeting, April 6-10, Phoenix, AZ.

Pavlowsky, R.T., 1989. A method for calculating the relative anthropogenic enrichment of trace metal loads in *rivers*. Association of American Geographers Annual Meeting, March 19-22, Baltimore, MD.

Pavlowsky, R.T., 1990. *Effects of extreme climatic events on trace metal transport in developed basins*. Association of American Geographers Annual Meeting, April 18-21, Toronto, Canada.

Pavlowsky, R.T., 1991. *Downstream changes in trace metal transport in the Raritan River, New Jersey:* Association of American Geographers Annual Meeting, April 13-17, Miami, FL.

Pavlowsky, R.T., 1992. *Effects of historical Pb-Zn mining on contemporary sediment contamination:* Association of American Geographers Annual Meeting, April 18-22, San Diego, CA.

Pavlowsky, R.T., 1993. *High density particle as indicators of Zn-Pb pollution in mined basins:* Association of American Geographers Annual Meeting, April 6-10, Atlanta, GA.

Pavlowsky, R.T., 1994. *Fluvial metal transport processes: geomorphology or geochemistry?* Association of American Geographers Annual, Meeting, March 30-April 2, San Francisco, CA.

Pavlowsky, R.T., 1994. *Fluvial transport and environmental fate of Zn-Pb tailings in the Galena River, sw WI-nw IL:* 17<sup>th</sup> Applied Geography Conference, October 12-15, Akron, OH.

Pavlowsky, R.T., 1995. Zn-Pb dispersal in Holocene floodplain sediments in a mineralized area. Association of American Geographers Annual Meeting, March 15-18, Chicago, IL.

Lecce, S.A. and R.T. Pavlowsky, 1995. *Mining sediments in alluvial deposits*. Association of American Geographers Annual Meeting, March 15-18, Chicago, IL.

Voight, R.J., and R.T. Pavlowsky, 1995. *Geochemical indicators of metal contaminants in fluvial systems*. Association of American Geographers Annual Meeting, March 15-18, Chicago, IL.

Pavlowsky, R.T., 1996. *Fluvial dilution and sorting of mining-related metal contaminants*. Association of American Geographers Annual Meeting, April 9-13, Charlotte, NC.

Lecce, S.A., and R.T. Pavlowsky, 1996. *Floodplains as long-term sources of metal contamination in mined watersheds:* Association of American Geographers Annual Meeting, April 9-13, Charlotte, NC.

Pavlowsky, R.T., 1997. *Particle-size metal contaminant relationships in fluvial sediments:* Association of American Geographers Annual Meeting, April 2-5, Ft. Worth, TX.

Shaffer, J.J., and R.T. Pavlowsky, 1997. *Spatial variability of nonpoint metal contaminants in fluvial Sediments*. Association of American Geographers Annual Meeting, April 2-5, Ft. Worth, TX.

Pavlowsky, R.T., 1997. *Physical geography and river management of the Pike Watershed:* Field Trip Guide, West Lakes Division Association of American Geographers 48th Annual Meeting at Carthage College, October 9-11, Kenosha, WI.

Lecce, S.A., and R.T. Pavlowsky, 1998. *Lateral variability of sediment-associated metal contamination in floodplains:* Association of American Geographers Annual Meeting, March, Boston, MA.

Pavlowsky, R.T., and S.A. Lecce, 1998. *Geomorphic response of the Pike River to channelization and urban development:* Association of American Geographers Annual Meeting, March, Boston, MA.

Pavlowsky, R.T., 1998. Use of Pb-Zn mining contaminants to evaluate sedimentation patterns in Midwestern streams (USA): British Geomorphology Research Group (BGRG) Conference on "Tracers in Geomorphology", Coventry University, England, September 1998.

Carlson, J.L., and R.T. Pavlowsky, 1998. *Analysis of historical sedimentation patterns using mining contaminant tracers, Honey Creek, southwest Missouri:* Association of American Geographers Annual Meeting, March 23-27, Honolulu, HI.

Legleiter, K.J., R.T. Pavlowsky, and E. Johnson, 1999. *Influence of a small dam on the hydrology and geomorphology of the James River, southwest Missouri*: Association of American Geographers Annual Meeting, March 23-27, Honolulu, HI.

Pavlowsky, R.T., 1999. Use of geochemical tracers to study floodplain sedimentation patterns in mined watersheds: Association of American Geographers Annual Meeting, March 23-27, Honolulu, HI.

Fredrick, B., and R.T. Pavlowsky, 2000. *Nonpoint pollution monitoring using bed sediment surveys:* Association of American Geographers Annual Meeting, Pittsburgh, PA.

Lecce, S.A., and R.T. Pavlowsky, 2000. *Timing and rates of historical floodplain sedimentation*. Association of American Geographers Annual Meeting, Pittsburgh, PA.

Licher, S., and R.T. Pavlowsky, 2000. *Geochemical tracing of sediment transport through a karst cave system in Springfield, Missouri:* Association of American Geographers Annual Meeting, Pittsburgh, PA.

Owen, M.R., and R.T. Pavlowsky, 2000. *Historical mining pollution and overbank sedimentation along the James River:* Association of American Geographers Annual Meeting, Pittsburgh, PA.

Martin, L., and R.T. Pavlowsky, 2000. *Applied geography and stormwater (mis) management in southwestern Missouri*. Association of American Geographers Annual Meeting, Pittsburgh, PA.

Pavlowsky, R.T., 2000. Role of geographers in watershed restoration projects. West Lakes/East Lakes

regional meeting Association of American Geographers, October 19-21, Oxford, OH.

Pavlowsky, R.T., 2000. *Karst caves as sources of nonpoint pollution*. White River Basin Forum 2nd Annual Meeting, Mountain Home, AR.

White, J., and R.T. Pavlowsky, 2000. Assessing nonpoint pollution using bed sediment surveys in the Kings River Basin, NW Arkansas. White River Basin Forum 2nd Annual Meeting, Mountain Home, AR.

Pavlowsky, R.T., 2001. *Downstream changes in metal-grainsize relationships in fluvial sediments from mined watersheds*. Association of American Geographers Annual Meeting, New York, NY.

Lecce, S.A., and R.T. Pavlowsky, 2001. *Dispersal of mining-contaminated sediments in floodplains, Blue River, Wisconsin.* 56th Annual Meeting of the Association of American Geographers Southeastern Division, Lexington, Kentucky.

Pavlowsky, R.T., M. Owen and B. Fredrick, 2001. *Spatial patterns and soruces of phosphorus and metals in lake bottom sediments, James River Arm of Table Rock Lake.* White River Basin Water Quality Forum 3rd Annual Meeting, Springfield, MO, Nov 6-7.

Pavlowsky, R.T., 2001. H. Rache, J. Havel, R. Biagioni, 2001. *James River total maximum daily load monitoring project: progress report and preliminary results*. White River Basin Water Quality Forum 3rd Annual Meeting, Springfield, MO, Nov 6-7.

Pavlowsky, R.T., J. Horton, A. Cheng, and S. Licher, 2001. *Land use influence on channel geomorphology and sediments in the Little Sac and James River basins, Southwest Missouri*. White River Basin Water Quality Forum 3rd Annual Meeting, Springfield, MO, Nov 6-7.

Pavlowsky, R.T., 2002. *Dispersal of metal-contaminated sediments in mined watersheds*. Association of American Geographers Annual Meeting, Los Angeles, CA, February.

Pavlowsky, R.T., and B. Fredrick, 2002. *Watershed-scale monitoring of phosphorus pollution using sediment surveys*. 9<sup>th</sup> International Symposium on the Interactions Between Sediments and Water, Banff, Canada, May 5-10.

Owen, M.R. and R.T. Pavlowsky, 2002. *Spatial patterns and sources of phosphorus and metals in lake bottom sediments*. 9<sup>th</sup> International Symposium on the Interactions between Sediments and Water, Banff, Canada, May 5-10.

Trimble, J., and R.T. Pavlowsky, 2002. *Bank erosion as a source of secondary contamination from historical Zn-Pb mining*. 9<sup>th</sup> International Symposium on the Interactions between Sediments and Water, Banff, Canada, May 5-10.

Pavlowsky, R.T., 2003. Land use and riparian buffer influence on channel morphology in Ozarks streams. Association of American Geographers Annual Meeting, New Orleans, LA, March 5-8.

Johnson, R., and R.T. Pavlowsky, 2003. *Nutrient sources and water quality in the James River Basin*. Association of American Geographers Annual Meeting, New Orleans, LA, March 5-8.

Jones, A., and R.T. Pavlowsky, 2003 Using stream morphology and land use as indicators of stream instability in small watersheds. Association of American Geographers Annual Meeting, New Orleans, LA, March 5-8.

Shade, K., and R.T. Pavlowsky, 2003. *Temporal analysis of floodplain deposition using urban pollution stratigraphy*. Association of American Geographers Annual Meeting, New Orleans, LA, March 5-8.

Evans, K., and R.T. Pavlowsky, 2003. *New Dimensions of the Weaubleau Structure: A possible meteorite impact site in southwestern Missouri*. 37<sup>th</sup> Annual Meeting of the North-Central Section of the Geological Society of America, Kansas City, MO, March 24-25.

Pavlowsky, R.T., 2003: *Urban influence on Ozark stream morphology, South Dry Sac Watershed, Missouri.* Geological Society of America Annual Meeting, Seattle, November 2-5, 2003 (Abstract/Program Vol. 35, no. 6, September 2003)

Pavlowsky, R.T., 2003:Land use influence on phosphorus patterns in bottom sediments, James River Arm of Table Rock Lake, Missouri. Annual Applied Geography Conference, Colorado Springs, Colorado, November 5-8, 2003.

Rodgers, W., R.T. Pavlowsky, and J. Ritchie, 2004. *Mercury Distribution and source identification using geochemical surveys and cesium-137 dating of fluvial sediments*. Association of American Geographers Annual Meeting, Philadelphia, PA, March 13-19.

Pavlowsky, R.T., 2004: *Urban influence on Ozark stream channels*. Association of American Geographers Annual Meeting, Philadelphia, PA, March 13-19.

Shade, K., R.T. Pavlowsky, and J. Ritchie, 2004. *Historical water quality trends using the alluvial sedimentary record, Wilson Creek National Battlefield, Missouri*. Association of American Geographers Annual Meeting, Philadelphia, PA, March 13-19.

Horton, K., and R.T. Pavlowsky, 2004. Assessment of recreation impacts on wilderness campsites, Mark Twain National Forest, Missouri. 16<sup>th</sup> Northeastern Recreation Research Symposium, March 28-30, Syracuse, NY.

Pavlowsky, R.T., 2004. *Urban impacts on Ozarks Streams:* Self Sustaining Solutions for Streams, Watersheds, and Wetlands Conference, American Society of Agricultural Engineers, September 12-15, Minneapolis, MN.

Davis, R.K., J.V. Brahana, R.T. Pavlowsky, and F. Gilzow, 2004. Ozark Plateau province Hydrologic Observatory. Consortium for the Advancement of Hydrologic Sciences, Inc. Logan, UT.

Rodgers, W., and R.T. Pavlowsky, 2005. Sources and history of mercury contamination in channel and bank sediments of Wilson Creek and its tributaries, Springfield, MO: Missouri Natural Resource Conference, February 2-4, Tan-Tar-A Resort, Osage beach, Mo.

Pavlowsky, R.T., and M. Bowen, 2005. *Within-reach variability of Ozark stream morphology*. Association of American Geographers Annual Meeting, Denver, CO, April 5-9.

Borchelt, G., and R.T. Pavlowsky, 2006. *Nutrient concentrations during baseflow conditions in rivers within the upper White River Basin:* Missouri Natural Resource Conference, February 1-3, Tan-Tar-A Resort, Osage beach, Mo.

Davis, T., and R.T. Pavlowsky, 2006. Soil phosphorus levels in residential lawns in Springfield, Missouri: comparisons with other turfgrass systems: Missouri Natural Resource Conference, February 1-3, Tan-Tar-A Resort, Osage beach, Mo.

Gray, J., and R.T. Pavlowsky, 2006. *Geomorphic assessment and restoration of a small urban Ozark stream:* Missouri Natural Resource Conference, February 1-3, Tan-Tar-A Resort, Osage beach, Mo.

Gossard, M., and R.T. Pavlowsky, 2006. *Geomorphic assessment and restoration plan for the Ward Branch restoration prject, Springfield, Missouri:* Missouri Natural Resource Conference, February 1-3, Tan-Tar-A Resort, Osage beach, Mo.

Pavlowsky, R.T., 2006. *Geomorphic assessment and restoration plans for the Ward Branch Restoration Project, Springfield*, Missouri: Association of American Geographers Annual Meeting, Chicago, IL, March 7-11.

Borchelt, G., and R.T. Pavlowsky, 2006. *Nutrient concentrations in streams and their relationship to geology and land-use in the Upper White River Basin:* Association of American Geographers Annual Meeting, Chicago, IL, March 7-11.

Armstrong, S., and R.T. Pavlowsky, 2006. *Detention basin influence on Ozarks stream stability:* Association of American Geographers Annual Meeting, Chicago, IL, March 7-11.

Armstrong, S., M. Owen, and R.T. Pavlowsky, 2006. *Geomorphological History and Analysis of an Urbanizing Karst Catchment*. 37<sup>th</sup> Binghamton Geomorphology Symposium on The Human Role in Changing Fluvial Systems, October 20-22, Columbia, SC.

Gossard, M.A., M.R. Owen, R.T. Pavlowsky, R.T. 2006. *Sediment budget approach to evaluate urban-related instability in an Ozark Stream.* 37<sup>th</sup> Binghamton Geomorphology Symposium on The Human Role in Changing Fluvial Systems, October 20-22, Columbia, SC.

Lecce, S.A. and G.J. Schlomer, R.T. Pavlowsky, 2006. *Mercury contamination of floodplain sediments from historic gold mining in North Carolina:* 37<sup>th</sup> Binghamton Geomorphology Symposium on The Human Role in Changing Fluvial Systems, October 20-22, Columbia, SC.

Schlomer, G.J., and S.A. Lecce, R.T. Pavlowsky, 2006. Use of gold mining-related mercury in geochemical profiles to investigate timing and rates of historical floodplain sedimentation in the North Carolina Piedmont. 37<sup>th</sup> Binghamton Geomorphology Symposium on The Human Role in Changing Fluvial Systems, October 20-22, Columbia, SC.

Pavlowsky, R, 2007. *Geomorphic resistance and the lack of channel change in a disturbed Ozark river*. Association of American Geographers Annual Meeting, San Francisco, CA, April 17-21.

Lecce, S., R. Pavlowsky, and G. Schlomer, 2007. *Mercury contamination of floodplain sediments from historic gold mining in Gold Hill, North Carolina*. Association of American Geographers Annual Meeting, San Francisco, CA, April 17-21.

Schlomer, G., R. Pavlowsky, and S. Lecce, 2007. Using geochemical and sedimentological trends to identify pre-and post- settlement boundaries in floodplain deposits of the North Carolina Piedmont. Association of American Geographers Annual Meeting, San Francisco, CA, April 17-21.

Owen, M, R. Pavlowsky, M. Gossard, and T. Smith, 2007. *Channel restoration of urbanizing stream of the Ozarks Plateaus, Greene County, Missouri*. Association of American Geographers Annual Meeting, San Francisco, CA, April 17-21.

Armstrong, S. and R. Pavlowsky, 2007. *Human transformation of a karst catchment in Springfield, Missouri*. Association of American Geographers Annual Meeting, San Francisco, CA, April 17-21.

Gossard, M., and R. Pavlowsky, 2007. *Sediment budget approach to evaluate urban-related instability in an Ozarks stream.* Association of American Geographers Annual Meeting, San Francisco, CA, April 17-21.

Mukherjee, A., X. Miao, J. Luo, and R. Pavlowsky, 2007. *Sinkhole mapping using LIDAR in Nixa, Missouri*. Annual meeting of the Geological Society of America., Denver, CO, October 28-31.

Bhattacharyya, M., K. Evans, and R. Pavlowsky, 2007. *Stream piracies and paleochannels in western Missouri*. Annual meeting of the Geological Society of America., Denver, CO, October 28-31.

Schlomer, G., R. Pavlowsky, and S. Lecce, 2007. Using geochemical and sedimentological trends to characterize pre- and post- settlement overbank floodplain deposits in a North Carolina Piedmont watershed. Annual meeting of the Geological Society of America., Denver, CO, October 28-31.

Mukherjee, A., X. Miao, J, Luo, and R. Pavlowsky, 2007. *GIS Database for sinkhole hazard assessment in Christian County. Missouri.* Joint South-Central and North-Central Sections Annual meeting of the Geological Society of America, Lawrence, KS, April 11-13.

Bhattacharyya, M., K. Evans, and R. Pavlowsky, 2007. *Abandoned valleys in western Missouri: Implications for landscape evolution of the northwest Ozark Plateau Borderland*, Joint South-Central and North-Central Sections annual meeting of the Geological Society of America, Lawrence, KS, April 11-13.

Pavlowsky, R.T., 2008. *Regime equations for the evaluation of stream channel morphology*, Missouri Natural Resources Conference workshop on "Stream channel monitoring and assessment": experiences from southwest Missouri, February 1, Tan-Tar-A Resort, Osage Beach, MO.

Pavlowsky,R.T., 2008. *Channel disturbance and Stability in the South Dry Sac River*, Missouri Natural Resources Conference workshop on "Stream channel monitoring and assessment": experiences from southwest Missouri, February 1, Tan-Tar-A Resort, Osage Beach, MO.

Owen, M. R. and R. Pavlowsky, 2008. *Ward Branch Urban Channel Stabilization Project*. Missouri Natural Resources Conference workshop on "Stream channel monitoring and assessment": experiences from southwest Missouri, February 1, Tan-Tar-A Resort, Osage Beach, MO.Missouri.

Pavlowsky, R.T., S.A. Lecce, and D.J. Martin, 2008. *Dispersal of metal contaminants by active channel sediments in a Piedmont North Carolina stream*. Association of American Geographers Annual Meeting, Boston, MA, April 14-19.

Owen, M.R. and R.T. Pavlowsky, 2008. *Historical sediment deposition on floodplains of the James River, Southwest Missouri*, Association of American Geographers Annual Meeting, Boston, MA, April 14-19.

Martin, D.J., and R.T. Pavlowsky, 2008. *Historical and present-day channel assessment of Finley Creek, Missouri using historical aerial photography*, Association of American Geographers Annual Meeting, Boston, MA, April 14-19.

Speer, D.M., and R.T. Pavlowsky, 2008. Large woody debris influence on Ozarks streams in relation to ice storm wood loadings, Association of American Geographers Annual Meeting, Boston, MA, April 14-19. David won second place for best student poster by the Water Resources Specialty Group

Schlomer, G.J., and R.T. Pavlowsky, 2008. Sedimentological and geochemical indicators of the pre-

settlement boundary in overbank floodplain deposits of the Little Buffalo-Dutch Buffalo River system, North Carolina, Association of American Geographers Annual Meeting, Boston, MA, April 14-19. First Place: Geomorphology Specialty Group MS student oral paper contest.

Williams, A., R.T. Pavlowsky, M. Owen, and D.J. Martin, 2008. *Human disturbance and geomorphic response* of a small Ozarks Plateau catchment, Association of American Geographers Annual Meeting, Boston, MA, April 14-19.

Womble,P.J, R.T. Pavlowsky, and M.R. Owen, 2008. *Portable X-ray fluorescence as a toll for rapid field determination of floodplain soil geochemistry and contamination risk*, Association of American Geographers Annual Meeting, Boston, MA, April 14-19. (5<sup>th</sup> place award winning poster for the MSU Interdisciplinary Forum, April 12)

Lecce, S.A., R.T. Pavlowsky, and G.J. Schlomer, 2008. *Trace metal contamination in the Cid Mining District, North Carolina*, Association of American Geographers Annual Meeting, Boston, MA, April 14-19.

Speer, D., and R. Pavlowsky, 2008. *Spatio-temporal assessment of large woody debris on a metropolitan Ozark stream*, 39<sup>th</sup> Annual Binghamton Geomorphology Symposium on Geoarchaeology and Environmental History, University of Texas-Austin, October 9<sup>th</sup>-11<sup>th</sup>.

Womble, P., R. Pavlowsky, and M. Owen, 2008. *Spatial Distribution of Zn in Floodplain Deposits Along Lower Pearson Creek, Southwest Missouri*, 39<sup>th</sup> Annual Binghamton Geomorphology Symposium, Geoarchaeology and Environmental History, University of Texas-Austin, October 9<sup>th</sup>-11<sup>th</sup>. Best poster for graduate student

Martin, D., and R. Pavlowsky, 2008. *Historical Patterns of Channel Stability in an Ozarks Watershed*, *SWMissouri*, 39<sup>th</sup> Annual Binghamton Geomorphology Symposium on Geoarchaeology and Environmental History, University of Texas-Austin, October 9<sup>th</sup>-11<sup>th</sup>.

Owen, M. R. and R.T. Pavlowsky, 2008. *Spatial Distribution of Historical Alluvium on Floodplains of the Middle James River, SW Missouri.* 39<sup>th</sup> Annual Binghamton Geomorphology Symposium on Geoarchaeology and Environmental History, University of Texas-Austin, October 9<sup>th</sup>-11<sup>th</sup>.

Dryer, W.P., R.T. Pavlowsky, S.A. Lecce, & D.J. Martin, 2009. *Mining-related contamination of channel and overbank sediments in the Big River, Old Lead Belt, SE Missouri*: Association of American Geographers Annual Meeting, Las Vegas, NV, March 22-27. Dryer won best oral paper by a MS student for the Water resources Specialty Group

Ebert, J.E., R.T. Pavlowsky, & W.A. Wedenoja, 2009. *An environmental assessment of the Blue Hole and Cave River systems, Bluefields Bay, Westmoreland, Jamaica*: Association of American Geographers Annual Meeting, Las Vegas, NV, March 22-27.

Hutchinson, E.C., H. Hoggard, & R.T. Pavlowsky, 2009. *Suspended sediment and dissolved solid transport in the James River, SW Missouri*: Association of American Geographers Annual Meeting, Las Vegas, NV, March 22-27.

Lecce, S.A., & R.T. Pavlowsky, 2009. *Fluvial sediment quality and toxic risk in a watershed affected by historical gold mining in North Carolina*: Association of American Geographers Annual Meeting, Las Vegas, NV, March 22-27.

Martin, D.J., and R.T. Pavlowsky, 2009. *Analysis and classification of channel disturbance zones in an Ozark river*: Association of American Geographers Annual Meeting, Las Vegas, NV, March 22-27.

Pavlowsky, R.T., S.A. Lecce, G.J. Schlomer, & D.J. Martin, 2009. *Historical channel and floodplain evolution of the Dutch Buffalo Creek, North Carolina Piedmont*: Association of American Geographers Annual Meeting, Las Vegas, NV, March 22-27.

Womble, P.J., M.R. Owen, & R.T. Pavlowsky, 2009. *Historical mining pollution in floodplain deposits along lower Pearson Creek, SW Missouri*: Association of American Geographers Annual Meeting, Las Vegas, NV, March 22-27.

Hutchison, E., and R.T. Pavlowsky, 2009. *Suspended sediment and dissolved solid transport in the James River, SW Missouri:* 16<sup>th</sup> Annual Graduate Interdisciplinary Forum, April 18, Missouri State University, Springfield.

Womble, P., and R.T. Pavlowsky, 2009. *Historical mining pollution in floodplain deposits along lower Pearson Creek, SW Missouri:* 16<sup>th</sup> Annual Graduate Interdisciplinary Forum, April 18, Missouri State University, Springfield. Finalist for Best Oral Paper

Dryer, W.P., 2009. *Mining-related contamination of channel and overbank sediments in the Big River, Old Lead Belt, SE Missouri (Poster):* 16<sup>th</sup> Annual Graduate Interdisciplinary Forum, April 18, Missouri State University, Springfield. Best Poster Award Winner

Ebert, J., and R.T. Pavlowsky, 2009. An environmental assessment of the Bluefields Regional Watershed, Westmoreland, Jamaica (Poster): 16<sup>th</sup> Annual Graduate Interdisciplinary Forum, April 18, Missouri State University, Springfield.

Speer, D., and R.T. Pavlowsky, 2009. *Spatio-temporal assessment of large woody debris on a metropolitan Ozark stream (Poster):* 16<sup>th</sup> Annual Graduate Interdisciplinary Forum, April 18, Missouri State University, Springfield.

Swift, B., and R.T. Pavlowsky, 2009. Nonpoint source and water quality trends in the Pearson Creek watershed, southwest Missouri (Poster). 16<sup>th</sup> Annual Graduate Interdisciplinary Forum, April 18, Missouri State University, Springfield.

Pavlowsky, R.T., S.A. Lecce, M.R. Owen, D.J. Martin, W.P. Dryer, and P.J. Womble, 2009. *Floodplain and channel storage of mining-related lead in the Big River, old Lead Belt, SE Missouri (Poster):* 40<sup>th</sup> Annual Binghamton Geomorphology Symposium: Geomorphology and Vegetation: Interactions, Dependencies, and Feedback Loops, Virginia Tech, Blacksburg, Virginia, October 2-4, 2009.

Womble, P.J., M.R. Owen, and R.T. Pavlowsky, 2009. *Identifying geo-stratigraphic assemblages using historical mining sediment (Poster):* 40<sup>th</sup> Annual Binghamton Geomorphology Symposium: Geomorphology and Vegetation: Interactions, Dependencies, and Feedback Loops, Virginia Tech, Blacksburg, Virginia, October 2-4, 2009. Best MS Poster Award

Dryer, P.D., and R.T. Pavlowsky, 2009. *Natural and human factors controlling catastrophic valley entrenchment and debris fan formation in the Bluefields River, Westmoreland, Jamaica:* 40<sup>th</sup> Annual Binghamton Geomorphology Symposium: Geomorphology and Vegetation: Interactions, Dependencies, and Feedback Loops, Virginia Tech, Blacksburg, Virginia, October 2-4, 2009.

Pavlowsky, R.T., and M.R. Owen, 2009. *Ward Branch Stream Restoration Project:* Annual Meeting of the Missouri Environmental Education Association, Ozark Community Technical College-Richwood Valley campus, Ozark, Missouri, October 17, 2009.

Pavlowsky, R.T., S.A. Lecce, G. Schlomer, and D.J. Martin, 2009. *Legacy Hg-Cu contamination of active sediments in Gold Hill Mining District, North Carolina:* 64<sup>th</sup> Annual Meeting of the Southeastern Division of the Association of the American Geographers, Knoxville, Tennessee, November 22-24, 2009.

Pavlowsky, R.T., S.A. Lecce, D.J. Martin, and M.R. Owen, 2010. *Preliminary report on contaminated sediment concentrations, distribution, and volume in channel and floodplain deposits of the Big River in St. Francois, Washington, and Jefferson Counties, Missouri:* Workshop on Ecotoxicology and sediment transport of the Big River and other toxicological investigations in Missouri's Lead Mining Districts, Missouri Natural Resources Conference 2010, Tan-Tar-A, Osage Beach, Missouri, February 3-5, 2010.

Martin, D.J., R.T. Pavlowsky, and W.P. Dryer, 2010. *Short-term variations in channel transport and bed and bar storage of mining sediment in the Big River:* Workshop on Ecotoxicology and sediment transport of the Big River and other toxicological investigations in Missouri's Lead Mining Districts, Missouri Natural Resources Conference 2010, Tan-Tar-A, Osage Beach, Missouri, February 3-5, 2010.

Pavlowsky, R.T., S.A. Lecce, D.J. Martin, M.R. Owen, and P.J. Womble, 2010. *Floodplain storage of mining sediment in the Big River, Old Lead Belt, SE Missouri:* GSA North-Central/South-Central Conference, Branson, Missouri, April 10-13.

Austin, E.C., K. Mickus, R.T. Pavlowsky, D.J., Martin, M.R. Owen, S.A. Lecce, and P.J. Womble, 2010. DC-Resistivity and GPR studies along the floodplains of the Big River, Missouri for mining sediment studies: GSA North-Central/South-Central Conference, Branson, Missouri, April 10-13.

Dryer, W.P., and R.T. Pavlowsky, 2010. *Catastrophic valley entrenchment and debris fan formation in the Bluefields River, Westmoreland, Jamaica:* GSA North-Central/South-Central Conference, Branson, Missouri, April 10-13.

Duzan, J., and R.T. Pavlowsky, 2010. *MS4 stormwater monitoring program and year 1 results for the Springfield, Missouri metropolitan region:* GSA North-Central/South-Central Conference, Branson, Missouri, April 10-13.

Ebert, J.E., and R.T. Pavlowsky, 2010. *Water quality trends in the Bluefields Bay Watershed, Jamaica:* GSA North-Central/South-Central Conference, Branson, Missouri, April 10-13.

Hoggard, H.L., and R.T. Pavlowsky, 2010. *Nonpoint source and water quality trends in the Pearson Creek Watershed:* GSA North-Central/South-Central Conference, Branson, Missouri, April 10-13.

Owen, M.R., R.T. Pavlowsky, and P.J. Womble, 2010. *Historical floodplain deposition and disturbance zone evolution in the middle James River, SW Missouri:* GSA North-Central/South-Central Conference, Branson, Missouri, April 10-13.

Sturnfield, E., and R.T. Pavlowsky, 2010. *Influence of urban and rural land use on water quality in a karst watershed, Springfield, Missouri:* GSA North-Central/South-Central Conference, Branson, Missouri, April 10-13.

Womble, P.J., M.R. Owen, and R.T. Pavlowsky, 2010. *Lead and zinc storage within alluvial deposits along lower Pearson Creek, SW Missouri:* GSA North-Central/South-Central Conference, Branson, Missouri, April 10-13.

Young, B.M., and R.T. Pavlowsky, 2010. *Disturbance zones and mining sediment remobilization in the lower Big river, southeast Missouri:* GSA North-Central/South-Central Conference, Branson, Missouri, April 10-13.

Pavlowsky, R.T., and S.A. Lecce, M.R. Owen, and D.J. Martin, 2010. *Channel dispersal and storage if mining sediment in the Big River, Old Lead Belt, SE Missouri:* Association of American Geographers Annual Meeting, Washington, D.C., April 14-18.

Dryer, W.P., and R.T. Pavlowsky, 2010. *Catastrophic valley entrenchment and debris fan formation in the Bluefields River, Westmorland, Jamaica:* Association of American Geographers Annual Meeting, Washington, D.C., April 14-18. Dryer won best oral paper by a MS student for the Geomorphology Specialty Group

Ebert, J., and R.T. Pavlowsky, 2010. *Watershed-based environmental planning in Bluefields Bay, Jamaica:* Association of American Geographers Annual Meeting, Washington, D.C., April 14-18.

Young, B.M., and R.T. Pavlowsky, 2010. *Floodplain storage and release of historical mining contaminated sediment in the lower Big River, SE Missouri:* Association of American Geographers Annual Meeting, Washington, D.C., April 14-18. Young won best oral paper by a MS student for the Water resources Specialty Group

Pavlowsky, R.T., and W.P. Dryer, 2010. *Catastrophic incision and debris fan formation of the Bluefields River due to extreme rainfall in Southwestern Jamaica*. Association of American Geographers Great Plains/Rocky Mountain Division Annual Meeting, Lawrence, Kansas, October 8-9.

Young, B., and R.T. Pavlowsky, 2010. *Historical channel changes along the lower Big River, eastern Missouri*. Association of American Geographers Great Plains/Rocky Mountain Division Annual Meeting, Lawrence, Kansas, October 8-9.

Casey, S., and R.T. Pavlowsky, 2010. Large woody debris in Ozark Highlands rivers. Association of American Geographers Great Plains/Rocky Mountain Division Annual Meeting, Lawrence, Kansas, October 8-9.

Pavlowsky, R.T., D.J. Martin, M.R. Owen, and S.A. Lecce, 2010. *Historical disturbance and geomorphic recovery of Big River, eastern Missouri*. Geological Society of America Annual Meeting, Denver, CO, October 31-November 2010.

Lecce, S.A., R.T. Pavlowsky, M.R. Owen, and D.J. Martin, 2010. *Storage of mining sediment in floodplain deposits of the Big River, Missouri*. Southeast Division of the Association of American Geographers Annual Meeting, Birmingham, AL. November 21-23.

Pavlowsky, R.T., D.J. Martin, and M.R. Owen, 2010. *Channel morphology and sediment characteristics of Ozark rivers*. Southeast Division of the Association of American Geographers Annual Meeting, Birmingham, AL. November 21-23.

Owen, M.R., R.T. Pavlowsky, and D.J. Martin, 2010. *Geomorphic evaluation of channel dredging to control contaminated sediment transport in Big River, Old Lead Belt, eastern Missouri.* Southeast Division of the Association of American Geographers Annual Meeting, Birmingham, AL. November 21-23.

Owen, M.R., and R.T. Pavlowsky, 2011. *Water quality and runoff characteristics from agricultural fields applied with biosolids and mineral fertilizers, Lawrence County, Missouri*. Workshop on Environmental Stewardship of Biosolids Land Application: Implications regarding soil health, nutrient cycling, storm water runoff, and agricultural production, Missouri Natural Resources Conference 2011, Tan-Tar-A, Osage Beach, Missouri, February 2-4, 2011. (session moderator too)

DeWitt, A.R., and R.T. Pavlowsky, 2011. *Runoff water quality assessment for forage crop fields applied with biosolids and mineral fertilizers, Southwest Missouri*. Upper Midwest Stream Restoration Symposium, Oconomowoc, WI, Feb 27-Mar 2.

Owen, M.R., and R.T. Pavlowsky, 2011. Assessment of nutrient and suspended sediment contributions from subdivision developments in Christian County, Missouri. Upper Midwest Stream Restoration Symposium, Oconomowoc, WI, Feb 27-Mar 2.

Pavlowsky, R.T., and S.A. Lecce, 2011. *Geomorphic disturbance, mining contamination, and restoration of the Big River, eastern Missouri*. Upper Midwest Stream Restoration Symposium, Oconomowoc, WI, Feb 27-Mar 2.

Young, B.M., and R.T. Pavlowsky, 2011.*Remobilization of mining contaminated sediment within disturbance zones along the lower Big River, eastern Missouri*. Upper Midwest Stream Restoration Symposium, Oconomowoc, WI, Feb 27-Mar 2. 2<sup>nd</sup> place student poster

Pavlowsky, R.T., and W.P. Dryer, 2011. *Debris flows and coastal sedimentation caused by catastrophic flooding, Bluefields River, southwestern Jamaica*. Association of American Geographers annual meeting, Seattle, WA, April 12-16.

Young, B.M., and R.T. Pavlowskey, 2011. *Channel disturbance and sediment-Pb remobilization in the lower Big River, eastern Missouri*. Association of American Geographers annual meeting, Seattle, WA, April 12-16.

Lecce, S.A., R.T. Pavlowsky, M.R. Owen, and D.J. Martin, 2011. *Storage of Lead-contaminated mining sediment in the floodplain of the Big River, Missouri.* Association of American Geographers annual meeting, Seattle, WA, April 12-16.

Mbuh, M.J., R.T. Pavlowsky, M. Baddock, J.A. Lee, and T. Gill, 2011. *Soil influence and geomorphology of dust sources on the Southern High Planins using MODIS imagery for 2001 to 2009*. Association of American Geographers annual meeting, Seattle, WA, April 12-16.

DeWitt, A.R., M.R.Owen, and R.T. Pavlowsky, 2011. *Downstream changes in channel morphology and flood capacity in an Ozarks watershed, Southwest Missouri*. Association of American Geographers annual meeting, Seattle, WA, April 12-16. Reds Wolman Research Award winner

DeWitt, A.R., R.T. Pavlowsky, and M. Harrington, 2011. *Drainage area-regime equations to quantify channel morphology of an Ozarks River, southwest Missouri*. Geological Society of America annual meeting, Minneapolis, MN, October 9-12.

Schiller, A., and R.T. Pavlowsky, 2011. *Trap efficiency and suspended sediment levels of Ozarks Mill Pond, Ozark, MO*. Geological Society of America annual meeting, Minneapolis, MN, October 9-12.

Pavlowsky, R.T., and S.A. Lecce, 2011, *Downstream changes in historical floodplain sedimentation along the Big River, Meramec Basin, Missouri Ozarks*. Geological Society of America annual meeting, Minneapolis, MN, October 9-12.

Pavlowsky, J.M., D.J. Wronkiewicz, and R.T. Pavlowsky, 2011. Accuracy and precision of geochemical analyses of contaminated and background sediments using a portable X-ray fluorescence analyzer. Geological Society of America annual meeting, Minneapolis, MN, October 9-12.

Daugherty, N., and R.T. Pavlowsky, 2012. *Nonpoint pollution sources and transport in rural Spring Creek, sw Missouri*, Missouri Natural Resources Conference, February 1-3, 2012, Tan-Tar-A Resort, Osage Beach, Missouri.

DeWitt, A.R., and R.T. Pavlowsky, 2012. *Channel morphology and substrate variability in the James River, Southwest Missouri*, Missouri Natural Resources Conference, February 1-3, 2012, Tan-Tar-A Resort, Osage Beach, Missouri. (Best Student Poster by the American Fisheries Society)

Harrington, M.C., and R.T. Pavlowsky, 2012. *Spatial and temporal variability of annual stream flow records in two Missouri ecoregions, Missouri* Natural Resources Conference, February 1-3, 2012, Tan-Tar-A Resort, Osage Beach, Missouri.

Kosovich, K.K., and R.T. Pavlowsky, 2012. *Gravel sediment sources and bar distribution within the main stem of Upper Bull Creek, southwest Missouri*, Missouri Natural Resources Conference, February 1-3, 2012, Tan-Tar-A Resort, Osage Beach, Missouri.

Larkin, A., and R.T. Pavlowsky, 2012. *Shoreline erosion assessment for Lake of the Ozarks State Park, Missouri*, Missouri Natural Resources Conference, February 1-3, 2012, Tan-Tar-A Resort, Osage Beach, Missouri.

Olson, L.M., and R.T. Pavlowsky, 2012. *Effects of historical mine tailings inputs on channel morphology and substrate, Big River, southeast Missouri*. Missouri Natural Resources Conference, February 1-3, 2012, Tan-Tar-A Resort, Osage Beach, Missouri.

Pavlowsky, R.T., Workshop presenter, 2012. *Geography and Geoscience: Connection Points for Complementary Disciplines*, Association of American Geographers annual meeting, New York, February 24-28.

Pavlowsky, R.T., M.R. Owen, S.A. Lecce, L.M., Olson, 2012. *Historical disturbance and recovery in an Ozarks River, southeast Missouri*. Association of American Geographers annual meeting, New York, February 24-28.

Lecce, S.A., and R.T. Pavlowsky, 2012. *Floodplain storage of sediment contaminated by mercury and copper from historic gold mining at Gold Hill, North Carolina.* Association of American Geographers annual meeting, New York, February 24-28.

DeWitt, A., and R.T. Pavlowsky, 2012. *Channel morphology regime equations for the James River, southwest Missouri Ozarks*. Association of American Geographers annual meeting, New York, February 24-28. (Best MS oral paper, Geomorphology Specialty Group)

Kosovich, K., and R.T. Pavlowsky, 2012. *Gravel sediment sources and bar distribution within the channel network of upper Bull Creek, southwest Missouri*, Association of American Geographers annual meeting, New York, February 24-28.

Martin, D.J., and R.T. Pavlowsky, 2012. *Spatial patterns of channel instability along an Ozark river, southwest Missouri*, Association of American Geographers annual meeting, New York, February 24-28.

Daugherty, N., and R.T. Pavlowsky, 2012. *Nonpoint pollution sources and transport in rural Spring Creek, SW Missouri*. Ozark Summit 2012, Missouri State University, June 12-14.

DeWitt, A.R., and R.T. Pavlowsky, 2012. *Regime models as tools for stream restoration in the James River, southwest Missouri Ozarks*, Ozark Summit 2012, Missouri State University, June 12-14.

Harrington, M.C., and R.T. Pavlowsky, 2012. *In-channel flow trends in Missouri using historical records and contemporary stream flow models*, Ozark Summit 2012, Missouri State University, June 12-14.

Hoggard, H., and R.T. Pavlowsky, 2012. Urban water quality in the Springfield, Missouri area: MS4 monitoring results, Ozark Summit 2012, Missouri State University, June 12-14.

Kosovich, K., and R.T. Pavlowsky, 2012. *Gravel sediment sources and bar distribution within the main stem of upper Bull Creek, southwest Missouri*, Ozark Summit 2012, Missouri State University, June 12-14.

Mayus, A., M.R. Owen, H. Hoggard, and R.T. Pavlowsky, 2012. Urban water quality restoration in the *metropolitan Springfield area, SW Missouri*. Ozark Summit 2012, Missouri State University, June 12-14.

Olson, L.M., and R.T. Pavlowsky, 2012. *Historical mine tailings inputs and their long-term effects on channel morphology and substrate, Big River, southeast Missouri*. Ozark Summit 2012, Missouri State University, June 12-14.

Owen, M.R., and R.T. Pavlowsky, 2012. *Water quality and forage production from municipal biosolids land application in southwest Missouri*, Ozark Summit 2012, Missouri State University, June 12-14.

Owen, M.R., and R.T. Pavlowsky, 2012. *Channel stabilization and riparian corridor enhancement in an urban stream, Springfield, Missouri*. Ozark Summit 2012, Missouri State University, June 12-14.

Rudolph, J.H., J.D. Carroll, D. Beckman, and R.T. Pavlowsky, 2012. *Coastal fishery restoration through implementation of a new national sanctuary program: Baseline fish and habitat surveys in Bluefields Bay.* Ozark Summit 2012, Missouri State University, June 12-14.

Pavlowsky, R.T., M.R. Owen, and L.M. Olson, 2012. *Geomorphic disturbance, mining contamination, and restoration implications for the Big River, southeastern Missouri*, Ozark Summit 2012, Missouri State University, June 12-14.

Kosovich, K., and R.T. Pavlowsky, 2012. *Gravel sediment sources and bar distribution within the main stem of upper Bull Creek, southwest Missouri*, Upper Midwest Stream Restoration Symposium, Minneapolis, MN, March 4-7 2012 First Place, best poster presentation

Olson, L., and R.T. Pavlowsky, 2012. *Effects of Historical Mine Tailings Inputs on Channel Morphology and Substrate, Big River, Southeast Missouri*. Upper Midwest Stream Restoration Symposium, Minneapolis, MN, March 4-7 2012 Second Place, best poster presentation

Daugherty, N., and R.T. Pavlowsky, 2012. *Nonpoint pollution sources and transport in rural Spring Creek, SW Missouri*. 20<sup>th</sup> Annual Nonpoint Source Monitoring Workshop, Tulsa, OK, October 14-17.

Owen, M.R., L. Olson, and R.T. Pavlowsky, 2012. Assessment of nutrient and suspended sediment contributions from a subdivision development in Christian County, Missouri. 20<sup>th</sup> Annual Nonpoint Source Monitoring Workshop, Tulsa, OK, October 14-17.

Vaughan, A., and R.T. Pavlowsky, 2012. Urban water quality in the Springfield, Missouri Area: MS4 monitoring program. 20<sup>th</sup> Annual Nonpoint Source Monitoring Workshop, Tulsa, OK, October 14-17.

Pavlowsky, R.T., and S.A. Lecce, 2012. Legacy Hg-Cu contamination of active stream sediments and floodplain deposits in the Gold Hill Mining District, North Carolina. Geological Society of American Annual Meeting, Charlotte, NC, November 4-7.

Owen, M.R., R.T. Pavlowsky, S.A. Lecce, and D.J. Martin, 2012. *Local-scale variations in floodplain contamination by historical mining in the Old Lead Belt, se Missouri*. 67<sup>th</sup> annual meeting of the the Southeastern Division of the Association of American Geographers, Ashville, North Carolina, November 18-20.

Pavlowsky, R.T., M.R. Owen, and D. Williams, 2012. *Sediment PAH (Polycyclic Aromatic Hydrocarbon) contamination in an urban watershed and the influence of coal-tar sealant sources*. 67<sup>th</sup> annual meeting of the the Southeastern Division of the Association of American Geographers, Ashville, North Carolina, November 18-20.

Iantria, L., R.T. Pavlowsky, and W. Kristos, 2013. *Bluefields Bay Area: charting its tourism destiny*. *Sustainable tourism development workshop, Bluefields, Jamaica.* January 8, 2013.

Kuehn, E., M.R. Owen, R.T. Pavlowsky, and J. Pitts, 2013. *Reduction of sediment and nutrient loads from riparian land and bank erosion along a southwest Missouri River*. Upper Midwest Stream Restoration Symposium, La Crosse, WI, February 24-27.

Owen, M.O., and R.T. Pavlowsky, 2013. *Geomorphic-based urabn stream restoration projects in Missouri and Kansas*. Upper Midwest Stream Restoration Symposium, La Crosse, WI, February 24-27.

Breckenridge, K., and R.T. Pavlowsky, 2013. *Field-based measurements of bed-load transport in an urban stream in the Missouri Ozarks*. Upper Midwest Stream Restoration Symposium, La Crosse, WI, February 24-27. First place in graduate student poster competition.

Vaughan, A., M.R. Owen, and R.T. Pavlowsky, 2013. *Application of urban-source metals for stratigraphic tracers in floodplain deposits along an Ozarks stream*. Upper Midwest Stream Restoration Symposium, La Crosse, WI, February 24-27.

Mayus, A., R.T. Pavlowsky, and M.R. Owen, 2013. Source of mining sediment contamination in historical overbank floodplain deposits along the Big River, Meramec River Basin, MO. Upper Midwest Stream Restoration Symposium, La Crosse, WI, February 24-27.

Pavlowsky, R.T., S.A. Lecce, 2013. *Legacy sediment waves in channel and floodplain deposits of an Ozarks river, SE Missouri*. Association of American Geographers annual meeting, Los Angeles, CA, March 9-13.

Lecce, S.A., and R.T. Pavlowsky, 2013. *Contamination of floodplain depostis by mining sediment in streams draining the Viburnum Trend mining district if southeast Missouri*. Association of American Geographers annual meeting, Los Angeles, CA, March 9-13.

Wang, C., R.T. Pavlowsky, and L.M. Olson, 2013. *Gravel bar detection using object based image analysis for remote sensing, Big River, SE Missouri*. Association of American Geographers annual meeting, Los Angeles, CA, March 9-13.

Mbuh, B.J., P. Hpouser, R.T. Pavlowsky, and J. Lee, 2013. *Effects of soil moisture initialization on dust storm forcasting model*. Association of American Geographers annual meeting, Los Angeles, CA, March 9-13.

Carroll, J.D., and R.T. Pavlowsky, 2013. *Physical habitat mapping in Bluefields Bay fish sanctuary, Westmoreland, Jamaica*. Annual conference of the Missouri Academy of Science, College of the Ozarks, Branson, MO, April 20.

Mayus, A.L., R.T. Pavlowsky, and M.R. Owen, 2013. *Mining sediment contamination in floodplain deposits along the Big River, Missouri Ozarks*. Annual conference of the Missouri Academy of Science, College of the Ozarks, Branson, MO, April 20.

Vaughan, A.L., M.R. Owen, L.M. Olson, R.T. Pavlowsky, 2013. *Geomorphology of a contaminated urban floodplain along Wilsons Creek, Springfield, Missouri*. Annual conference of the Missouri Academy of Science, College of the Ozarks, Branson, MO, April 20.

Kuehn, E.A., M.R. Owen, and R.T. Pavlowsky, 2013. *Contributions of stream bank erosion to sediment loads in a southwestern Missouri river*. Annual conference of the Missouri Academy of Science, College of the Ozarks, Branson, MO, April 20.

Foreman, A.T., and R.T. Pavlowsky, 2013. *Historical flood regime variability in Missouri rivers*. Annual meeting of the Geological Society of America, Denver, CO, October 27-30.

Kissel, J., A.L. Vaughan, M.R. Owen, and R.T. Pavlowsky, 2013. *Magnetic susceptibility profiles in floodplain and terrace depostis along the James River, southwest Missouri*. Annual meeting of the Geological Society of America, Denver, CO, October 27-30.

Pavlowsky, R.T. and A.T. Foreman, 2013. *Historical flood variability and geomorphic effectiveness in Ozark Plateau rivers*. Annual meeting of the Geological Society of America, Denver, CO, October 27-30.

Lecce, S.A. and Pavlowsky, R.T. 2013. *Hydraulic Geometry in a North Carolina Piedmont Watershed*. Annual Meeting of the Southeastern Division of the Association of American Geographers, Roanoke, Virginia, November 17-19.

Arnall, C., V. Cane, J. Witt, and R.T. Pavlowsky, 2014. *Reach-scale variability of contaminated channel sediments in Big River, St. Francois County, Missouri*. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 5-7.

Cane, V., and R.T. Pavlowsky, 2014. *Recovery of macroinvertebrate communities in a restored urban stream in Springfield, Missouri*. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 5-7. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 5-7.

Foreman, A.T., and R.T. Pavlowsky, 2014. *Historical flood variability in Missouri Rivers*. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 5-7.

Kuehn, E.A., and R.T. Pavlowsky, 2014. *Contributions of stream bank erosion to sediment loads in a southwestern Missouri River*. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 5-7.

Witt, J., R.T. Pavlowsky, V. Cane, and C. Arnall, 2014. *Mining chat contributions to the Big River in St. Francois County, Missouri*. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 5-7.

Lecce, S.A., and R.T. Pavlowsky, 2014. *Floodplain contamination in the Viburnum Trend Mining District, Missouri*. Annual Conference of the Association of American Geographers, Tampa,FL, April 8-12.

Mulling, A., M.R. Owen, and R.T. Pavlowsky, 2014. *Lake sediment geochemistry, distribution, and point source phosphorus reduction in Table Rock Lake, southwestern Missouri*. Annual Conference of the Association of American Geographers, Tampa,FL, April 8-12.

Pavlowsky, R.T., and S.A. Lecce, 2014. *Downstream changes in alluvial sediment storage and mining-metal contamination in Viburnum Trend streams, southeast Missouri*. Annual Conference of the Association of American Geographers, Tampa,FL, April 8-12.

Zelzer, K., and R.T. Pavlowsky, 2014. *Recent shoreline erosion rates along the south coast of Jamaica*. Annual Conference of the Association of American Geographers, Tampa, FL, April 8-12.

Meyer, J.L., L. Quinn, A.T. Pavlowsky, R.T. Pavlowsky, 2014. *The Howard Eaton Trail: preserving the past with digital mapping and spatial narratives*. 12<sup>th</sup> Biennial Scientific Conference on the Greater Yellowstone Ecosystem, Mammoth Hot Springs Hotel, Yellowstone National Park, Wyoming, October 6-8.

Pavlowsky, R.T., M.R. Owen, and S.A. Lecce, 2014. *Geomorphic controls on alluvial sediment storage and mining-metal contamination in Viburnum Trend streams, SE, Missouri*. 69<sup>th</sup> annual meeting of the South-Eastern Division of the Association of American Geographers, Athens, Georgia, November 23-25.

Mulling, A., and R.T. Pavlowsky, 2014. *Spatial distribution of phosphorus in lake bottom sediments before and after improvements in wastewater treatment*. 69<sup>th</sup> annual meeting of the South-Eastern Division of the Association of American Geographers, Athens, Georgia, November 23-25.

Martin, D.J., C. Harden, and R.T. Pavlowsky, 2014. *Geospatial characterization of fluvial wood arrangement in a semi-confined alluvial river*. American Geophysical Union Fall Meeting, San Francisco, December 15-19.

Corrodi, F., and R.T. Pavlowsky, 2015. Bank erosion assessment of Wilson Creek in Springfield, Missouri. Upper Midwest Stream Restoration Symposium, Dubuque, Iowa, February 8-11.

Mulling, A., R.T. Pavlowsky, and M. Owen, 2015. Water treatment plant improvements and the reduction of sediment phosphorus in Table Rock Lake, southwest Missouri. Upper Midwest Stream Restoration Symposium, Dubuque, Iowa, February 8-11.

Owen, M.R.. and R.T. Pavlowsky, 2015. Historical channel change and disturbance zone formation in the Big River, SE Missouri. Upper Midwest Stream Restoration Symposium, Dubuque, Iowa, February 8-11.

Pitts, J., and R.T. Pavlowsky, 2015. Riparian corridor protection as a watershed restoration tool in the Missouri Ozarks. Upper Midwest Stream Restoration Symposium, Dubuque, Iowa, February 8-11.

Zelzer, K., R.T. Pavlowsky, and M.R. Owen, 2015. Spatial and seasonal trends in urban runoff water quality in the Springfield, Missouri metropolitan area. Upper Midwest Stream Restoration Symposium, Dubuque, Iowa, February 8-11.

Keppel, A., M.R. Owen, R.T. Pavlowsky, 2015. *Mining influence on lead profiles in historical floodplain deposits along the Big River*. 49<sup>th</sup> Annual Meeting of the South Central Section of the Geological Society of America, Stillwater, OK, March 19-20.

Pavlowsky, R.T., J. Pitts, and P.R. Owen, 2015. *Can riparian conservation easements reduce nonpoint sediment and nutrient loads in watersheds?* Annual Conference of the Association of American Geographers, Chicago, IL, April 21-25.

Huggins, D.B., R.T. Pavlowsky, and M.R. Owen., 2015. *Spatial analysis of reach-scale factors controlling floodplain contamination by historical lead mining in the Big River, southeast Missouri*. Annual Conference of the Association of American Geographers, Chicago, IL, April 21-25.

Lecce, S.A., R.T. Pavlowsky, and M.T. Owen, 2015. *Channel and floodplain storage of sediment and lead in streams draining the Viburnum Trend mining district of southeast Missouri*. Annual Conference of the Association of American Geographers, Chicago, IL, April 21-25.

Mulling, A.D., R.T. Pavlowsky, and M.R. Owen, 2015. *Historical changes of sediment phosphorus in a riverlake system due to improvements in wastewater treatment*. Annual Conference of the Association of American Geographers, Chicago, IL, April 21-25. First place in student poster competition for the Water Resources Specialty Group.

Zelzer, K., and R.T. Pavlowsky, 2015. *Recent shoreline erosion rates along the south coast of Jamaica*. Annual Conference of the Association of American Geographers, Chicago, IL, April 21-25.

Pavlowsky, R.T., 2015. Sediment connectivity, fluvial geomorphology, and long-term mining lead storage in Big River, Old Lead Belt, Missouri. International Society for River Science 4<sup>th</sup> Biennial Symposium, La Crosse, WI, August 23-28, 2015.

Pavlowsky, R.T., and M.R. Owen, 2015. *Storage and management of contaminated sediment from historical lead mining above low water crossings and old mill dams in Big River, Old Lead Belt, southeast Missouri.* Annual conference of the American Water Resources Association, Denver, CO, November 16-19.

Owen, M.R., A. Mulling, and R.T. Pavlowsky, 2015. *Sediment phosphorus reductions due to improvements in wastewater treatment in Table Rock Lake, southwest Missouri*. Annual conference of the American Water Resources Association, Denver, CO, November 16-19.

Lecce, S.A. and Pavlowsky, R.T. 2015. *Channel and Floodplain Storage of Sediment and Lead in the Viburnum Trend Mining District of Southeast Missouri*. Annual Meeting of the Southeastern Division of the Association of American Geographers, Pensacola, FL., November 22-24.

Pavlowsky, R.T. M. Pierson, and M.R. Owen, 2016. Restoration of contaminated river sediment: increasing channel (dis)connectedness to remediate tailings inputs. Upper Midwest Stream Restoration Symposium, Milwaukee, WI, February 7-10.

Bradley, N., R.T. Pavlowsky, and M.R. Owen, 2016. Headwater stream instability in Tram Hollow, Mark Twain National Forest, southeast Missouri. Upper Midwest Stream Restoration Symposium, Milwaukee, WI, February 7-10.

Bradley, R., R.T. Pavlowsky, and M.R. Owen, 2016. Spatial analysis of channel change in Big Barren Creek, Mark Twain National Forest, southeast Missouri. Upper Midwest Stream Restoration Symposium, Milwaukee, WI, February 7-10.

Duff, H., and R.T. Pavlowsky, 2016. Concentrations of polycyclic aromatic hydrocarbons (PAHs) in sediments in an urban detention basin system, Springfield, Missouri. Upper Midwest Stream Restoration Symposium, Milwaukee, WI, February 7-10.

Hill, R., and R.T. Pavlowsky, 2016.Storage of contaminated sediment from historical mining in Flat River Creek, Old Lead Belt, Missouri. Upper Midwest Stream Restoration Symposium, Milwaukee, WI, February 7-10.

Huggins, D., R.T. Pavlowsky, and M.R. Owen, 2016. Spatial patterns of mining contamination on floodplains along Big River, southeastern Missouri. Upper Midwest Stream Restoration Symposium, Milwaukee, WI, February 7-10.

Rose, K., and R.T. Pavlowsky, 2016. Metal contamination in road dust and soil in residential areas in Springfield, Missouri. Upper Midwest Stream Restoration Symposium, Milwaukee, WI, February 7-10.

Thies, M., R.T. Pavlowsky, and M.R. Owen, 2016. Channel form and substrate variations in Big Barren Creek, Mark Twain National Forest, southeast Missouri, Upper Midwest Stream Restoration Symposium, Milwaukee, WI, February 7-10.

Voss, J., Pavlowsky, R.T. M. Pierson, and M.R. Owen, 2016. Contaminated sediment remediation in a floodplain basin along Big River, Old Lead Belt, southeastern Missouri. Upper Midwest Stream Restoration Symposium, Milwaukee, WI, February 7-10.

Weedman, N., Pavlowsky, R.T. M. Pierson, and M.R. Owen, 2016. HEC-RAS modeling of flows around a constructed Newberry riffle structure, Big River, southeast Missouri. Upper Midwest Stream Restoration Symposium, Milwaukee, WI, February 7-10.

Pavlowsky, R.T., M. Pierson, S.A. Lecce, D.J. Martin, and M.R. Owen, 2016. Channel and floodplain management of contaminated legacy sediment in Big River, Old Lead Belt, southeast Missouri. Annual conference of the American Association of Geographers, San Francisco, March 29-April 2.

Huggins, D.H., R.T. Pavlowsky, and M.R. Owen, 2016.Spatial analysis of reach-scale factors controlling floodplain contamination by historical lead mining in Big River, southeast Missouri. Annual conference of the American Association of Geographers, San Francisco, March 29-April 2.

Hill, R.J., and R.T. Pavlowsky, R.T., 2016. Downstream variations in channel sediment and mining-lead storage in Flat River Creek, Old Lead Belt, southeast Missouri. Annual conference of the American Association of Geographers, San Francisco, March 29-April 2.

Voss, J., Pavlowsky, R.T. M. Pierson, and M.R. Owen, 2016. Sedimentation in a floodplain basin designed to trap contaminated sediment along Big River, Old Lead Belt, southeastern Missouri. Binghamton Geomorphology Conference, Colorado State University, Fort Collins, Colorado, September 15-18.

Thies, M., R.T. Pavlowsky, and M.R. Owen, 2016. Geomorphic regime equations for stream channels in Big Barren Creek, Mark Twain National Forest, southeast Missouri, Binghamton Geomorphology Conference, Colorado State University, Fort Collins, Colorado, September 15-18.

Bradley, N., R.T. Pavlowsky, and M.R. Owen, 2016. Historical rail-bed influence on headwater stream morphology in Tram Hollow, Mark Twain National Forest, southeast Missouri. Binghamton Geomorphology Conference, Colorado State University, Fort Collins, Colorado, September 15-18.

Bradley, R., R.T. Pavlowsky, and M.R. Owen, 2016. Distribution of channel disturbance on private and public lands in Big Barren Creek, Mark Twain National Forest, southeast Missouri. Binghamton Geomorphology Conference, Colorado State University, Fort Collins, Colorado, September 15-18.

Pavlowsky, R.T., M. Pierson, J. Voss, and N. Weedman, 2016. Restoration and long-term recovery of contaminated sediment in Big River, Old Lead Belt, southeast Missouri. Annual conference of the Geological Society of American, Denver, CO, September 25-28.

Hente, M., and R.T. Pavlowsky, 2016. Influence of prescribed burning on upland soil properties in Mark Twain National Forest, Southeast Missouri Ozarks. Annual conference of the Geological Society of American, Denver, CO, September 25-28.

Geier, K., and R.T. Pavlowsky, 2016. Geomorphic analysis of beach morphology in relation to substrate, vegetation, and erosion history, Galleon Fish Sanctuary, St. Elizabeth, Jamaica. Annual conference of the Geological Society of American, Denver, CO, September 25-28.

Bradley, R.A., R.T. Pavlowsky, and M.R. Owen, 2016. History of human modifications on Big Barren Creek, southeast Missouri. Annual conference of the Geological Society of American, Denver, CO, September 25-28.

Weedman, N., M. Pierson, R.T. Pavlowsky, and M.R. Owen, 2016. Using survey data and HEC-RAS modeling to assess mining-contaminated sediment deposition behind a riffle ramp remediation structure in Big River, Bonne Terre, Missouri. Annual conference of the Geological Society of American, Denver, CO, September 25-28.

Duff, H.M., and R.T. Pavlowsky, 2016. Sedimentation of polycyclic aromatic hydrocarbons within an urban storm water basin draining coal-tar sealed parking lots. Annual conference of the Geological Society of American, Denver, CO, September 25-28.

### 2017

Geier, K., R,T. Pavlowsky, M. Connally, and T. Dogwiler, 2017. Outreach program to monitor beach erosion in Treasure Beach, south coast Jamaica. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 1-3.

Hente, M., R,T. Pavlowsky, and M.R. Owen, 2017. Prescribed burning effects on soil conditions in Mark Twain National Forest, southeast Missouri Ozarks. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 1-3.

Rose, K, R,T. Pavlowsky, and M.R. Owen, 2017. Lead contamination in roadside soils and road sediment in Springfield, Missouri. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 1-3.

Nash, J. and R,T. Pavlowsky, 2017. Engineered log structures used for bank stability in an Ozarks stream, Missouri. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 1-3.

Thies, M., R.T. Pavlowsky, and M.R. Owen, 2017. Stream channel stability and human modification of Big Barren Creek, Mark Twain National Forest, southeast Missouri. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 1-3.

Voss, J., R.T. Pavlowsky, M. Pierson, and M.R. Owen, 2017. Effectiveness of a constructed "off line" sedimentation basin for contaminated sediment mitigation, Big River, southeast Missouri. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 1-3.

Weedman, N., M. Pierson, M.R. Owen, and R.T. Pavlowsky, 2017. Using HEC-RAS as a tool to better understand river behavior, and the impact of remediation/engineered structures in and around rivers.. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 1-3.

Bradley, N., R,T. Pavlowsky, and M.R. Owen, 2017. Geomorphic effects of valley disturbance by historical rail beds on headwater streams, Mark Twain National Forest. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 1-3.

Bradley, R., R.T. Pavlowsky, and M.R. Owen, 2017. History of human modification on Big Barren Creek, southeast Missouri. Missouri Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 1-3.

Duff, H., and R.T. Pavlowsky, 2017. Polycyclic aromatic hydrocarbon (PAH) distribution in sediments in an urban detention basin system, Springfield, Missouri. Natural Resources Conference, Tan-Tar-A Resort, Osage Beach, MO, February 1-3.

Pavlowsky, R.T., M. Thies, R.A. Bradley, M.R. Owen, 2017. Geographic distribution and geomorphic behavior of stable and human-modified channels along Big Barren Creek, Mark Twain National Forest, Missouri Ozarks Upper Midwest Stream Restoration Symposium, La Crosse, WI, February 26-March 1.

Thies, M., and R.T. Pavlowsky, 2017. Geomorphic effects of human modifications of Big Barren Creek, Mark Twain National Forest, Southeastern Missouri. Upper Midwest Stream Restoration Symposium, La Crosse, WI, February 26-March 1.

Nash, J., and R.T. Pavlowsky, 2017. Monitoring engineered log structure implementation in the North Fork of the White River, Missouri Ozarks. Upper Midwest Stream Restoration Symposium, La Crosse, WI, February 26-March 1.

Voss, J., and R.T. Pavlowsky, 2017. Remediation of mining-contaminated sediment using a floodplain constructed basin system, Big River, southeast Missouri. Upper Midwest Stream Restoration Symposium, La Crosse, WI, February 26-March 1.

Pavlowsky, R.T., M. Thies, R.A. Bradley, and M.R. Owen, 2017. Geographic distribution and geomorphic behavior of human modified channels along Big Barren Creek, Mark Twain National Forest, Missouri Ozarks. Association of American Geographers Annual Meeting, Boston, MA, April 5-9.

Geier, K., and R.T. Pavlowsky, 2017. Beach erosion and mangrove risk, Galleon Fish Sanctuary, St. Elizabeth, Jamaica. Association of American Geographers Annual Meeting, Boston, MA, April 5-9.

Connolly, M., K. Geier, R.T. Pavlowsky, and T. Dogwiler, 2017. Beach erosion trends and community concerns along Treasure Beach, South Coast Jamaica. Association of American Geographers Annual Meeting, Boston, MA, April 5-9.

Hente, M., and R.T. Pavlowsky, 2017. Prescribed burning effects on soil conditions in Mark Twain National Forest, southeast Missouri Ozarks. Association of American Geographers Annual Meeting, Boston, MA, April 5-9.

#### **TECHNICAL REVIEWER**

#### Grant Programs

National Geographic Society-Committee for Research and Exploration (Grants) National Science Foundation (Grants)

EPSCoR Program Earth Surface Processes and Hydrology Program Archaeology Program Geography and Regional Science Program CAREER Program Geography and Spatial Sciences Program Geomorphology and Land Use Dynamics Program Dissertation Improvement Grant Program United States Geological Survey- Water Resources Grants

#### Journals

American Journal of Science Anthropocene Archives of Environmental Contamination and Toxicology **Environmental Geology Environmental Earth Science** Environmental Toxicology and Chemistry **Geographical Bulletin** Geomorphology **Geographical Review** Hydrology Journal of Arid Environments Journal of the American Water Resources Association Minerals Nature Education Physical Geography Southeastern Geographer Science of the Total Environment **USGS** Water Resources Investigations

#### **PROFESSIONAL SOCIETY MEMBERSHIPS**

Association of American Geographers (AAG) American Water Resources Association (AWRA) Geological Society of America (GSA) Soil and Water Conservation Society (SWCS) Gamma Theta Upsilon (GTU), International Honor Fraternity of Geography

### GRADUATE STUDENT COMMITTEE WORK

Major Advisor for Thesis Projects (Graduated students only)

1) Legleiter, K.J., Aug 1999. GIS analysis of channel changes due to a small dam on the James River, sw Missouri (resource planning)

2) Carlson, J.L., Dec 1999. Zinc mining contamination and sedimentation rates of historical overbank deposits, Honey Creek watershed, sw Missouri (resource planning)

3) Rache, H., Dec 2000. Dendrochemical analysis of oak tree rings to yield a metal pollution history (resource planning)

4) Scheibel, S., Dec 2000. Geographical and historical assessment of the Jordan Creek Restoration Site (resource planning)

5) White, J., May 2001. Nonpoint Pollution Monitoring using bed sediment surveys in the Kings River basin, AR (resource planning)

6) Fredrick, B., Aug 2001. Nonpoint Pollution Monitoring using bed sediment surveys in the James River basin, MO (resource planning)

7) Martin, L., Aug 2001. Geomorphic adjustments of Ozark stream channels to urbanization, sw Missouri (natural and applied science)

8) Trimble, J., Dec 2001. Spatial patterns and fluvial sediment contributions of zinc in a mined watershed, Chat Creek, sw Missouri (resource planning)

9) Wyllie, R., May 2002. Relationship of dam construction and riparian buffer vegetation to historical channel changes, Little Sac River, sw Missouri (resource planning)

10) Tannehill, T: Dec 2002. Spatial distribution of metal contaminants in recent bottom sediments of Lake Springfield (resource planning)

11) Horton, J., May 2003. Land use influences on channel geomorphology, South Dry Sac Watershed, sw Missouri (resource planning)

12) Owen, M: Dec 2003. Phosphorus contamination and storage in bottom sediments of the James River Arm of Table Rock Lake, sw MO (resource planning)

13) Shade, K., Dec 2003. Temporal analysis of floodplain deposition using urban pollution stratigraphy, Wilson Creek National Battlefield (natural and applied science)

14) Licher, S, Dec 2003. History of sedimentation and contamination in Valley Mill Reservoir, Springfield, MO (resource planning)

15) Bowen, M., May 2004. Consequences of Valley Mill Reservoir drainage and downstream water quality (resource planning)

16) Rodgers, W., May 2005: Mercury contamination of channel and floodplain sediments in Wilson Creek Watershed, Southwest Missouri (geospatial science )

17) Martin, D., Aug 2005. Geospatial analysis of gravel bar deposition and channel migration within the Ozark National Scenic Riverways (geospatial science)

18) Nickolotsky, A., Aug 2005. Step-pool morphology of a wilderness headwater stream of the Buffalo River, Arkansas (geospatial science)

19) Miller, R., May 2006. Nutrient loads and sources in the urbanized Jordan-Wilson Creek watershed (geospatial science)

20) Davis, T., Dec 2006. Soil phosphorus levels in residential lawns and comparisons among four and land uses in Springfield, Missouri (natural and applied science)

21) Borchelt, G., Dec 2007. Nutrient Concentrations at Baseflow Conditions in the Upper White River Basin, Southwest Missouri and Northwest Arkansas (geospatial science)

22) Cheng, A., May 2008. Spatial Interpolation of turbidity in the James River arm of Table Rock Lake (resource planning)

23) Kothenbeutal, J., Dec 2008. Reach-scale variability on nonpoint contaminants in urban stream sediments, Fassnight Creek, Springfield, Missouri. (resource planning)

24) Womble, P.J., Dec 2009. Historical mining contamination and floodplain evolution along lower Pearson Creek, sw Missouri (geospatial science)

25) Dryer, W.P. July 2010. Catastrophic valley entrenchment and debris fan formation in the Bluefields River, Westmoreland, Jamaica. (geospatial science)

26) Ebert, J.E. July 2010. Integrated watershed management in Bluefields Bay, Jamaica. (Geospatial Science)

27) Hutchison, E.C.D., Dec 2010. Mass transport of Suspended Sediment, Dissolved Solids, Nutrients, and Anions in the James River, SW Missouri. (geospatial science)

28) Young, B.M., May 2011. Historical channel change and mining-contaminated sediment remobilization in the Lower Big River, eastern Missouri. (geospatial science)

29) Mbuh, M., Dec 2011. Spatiotemporal characteristics of dust sources on the Southern High Plains and Eastern New Mexico using MODIS Imagery from 2001 to 2009 (geospatial science)

30) DeWitt, A., May 2012. Channel morphology, substrate variability, and bedrock influence in the James River, southwest Missouri (geospatial science)

31) Harrington, M, Dec 2012. Stream Discharge-Drainage Area Relationships in Missouri (geospatial science)

32) Carroll, J., May 2013. Physical habitat mapping and assessment in Bluefields Bay Fish Sanctuary, Westmoreland, Jamaica (geospatial science).

33) Kosovich, K., Dec 2013. Historical channel stability and gravel bar changes in upper Bull Creek, Missouri (natural and applied science)

34) Lamb, C., May 2014. Barriers to low impact development in the city code of Springfield, Missouri. (natural and applied science)

35) Bullard, L., Aug 2014. Water quality snapshot survey in the James River Watershed, Missouri (natural and applied science)

36) Foreman, A., Aug 2014. Climate change influence on historical flood variability in Ozark Highlands rivers (geospatial science)

37) Vaughan, A., Aug 2014. Geomorphology of a contaminated urban floodplain along Wilson Creek, Springfield Missouri (GSS)

38) Clegg, E. May 2015. A sustainable tourism assessment for a marine protected area in southwest Jamaica (GSS)

39) Mulling, A., May 2015. Sediment-phosphorus response to reduced point source loading in the James River watershed, southwest Missouri (GSS)

40) Zelzer, K., May 2015. Recent shoreline erosion rates along Black River Bay, Jamaica: erosion and recovery due to Hurricane Ivan in 2004 (GSS)

41) Kuehn, E., Aug 2015. Stream bank erosion trends and sediment contributions in a southwestern Missouri River (GSS)

42) Huggins, D., May 2016. Spatial distribution and geomorphic factors of lead contamination on floodplain affected by historical mining, Big River, S.E. Missouri. (GSS) MSU-Best Thesis of the Year, Physical Science.

43) Hill, R., Dec 2016 Downstream variations in channel sediment and mining-lead storage in Flat River Creek, Old Lead Belt, Missouri (GSS)

44) Olson, L., May 2017. Gravel bar morphology, distribution, and mining-related sediment in Big River, St. Francois County, Missouri: Implications for geomorphic recovery (GSS)

45) Geier, K., May 2017. Beach form, change, and mangrove interactions along Galleon Fish Sanctuary, south coast Jamaica (GSS)

46) Voss, J., May 2017. Deposition patterns and rates of mining-contaminated sediment with a sedimentation basin system, Big River, S.E. Missouri. (GSS)

47) Thies, M., May 2017. Geomorphic characteristics and sediment transport in natural and channelized reaches of Big Barren creek, southeast Missouri (GSS).

48) Bradley, Nick, May 2017. Geomorphic characteristics of historical logging rail-beds on an Ozarks headwater stream, Mark Twain National Forest, Missouri. (GSS)

49) Hente, M., May 2017. Influence of prescribed burning on upland soil properties in Mark Twain National Forest, southeast Missouri Ozarks. (GSS)

50) Duff, H., Aug 2017. Sediment contamination of polycyclic aromatic hydrocarbons (PAHs) in a storm-water detention basin. (GSS)

51) Bradley, R., Aug 2017. Geomorphic disturbance and anthropogenic modifications in Big Barren Creek, Mark Twain National Forest, Southeast Missouri. (GSS)

Expected to Graduate in Geospatial Science MS program:

2016-17 (n=10): Matt Thies, Nick Bradley, Ellie Bradley, Megan Hente, Kayla Geier, Matt Voss, Holly Duff. Jennifer Witt, , Kris Breckenridge, Stacey Armstrong.

### Major Advisor for Seminar Papers/Non-thesis Option

1) Steinwachs, M., 2002. Management plan for problem wastes in Missouri (administrative scienceenvironmental management).

2) Horton, K., 2004. Assessment of campsite impacts in wilderness areas, Mark Twain National Forest, Missouri (natural and applied science).

3) Gray, J., 2007. Geomorphic Assessment and Restoration of headwater Urban channel (geospatial science).

4) Vail, N., 2011. Recreational Access to the James River, sw Missouri (geospatial science)

5) Muchiri, G., Dec 2012: Water quality variations in storm-water runoff events in Christian County, Missouri (geospatial science)

6) Walker, S., Dec 2012. Total suspended solids and iron concentrations in storm-water related to site disturbance at an industrial facility in southwestern Missouri (administrative science-environmental management).

7) Coonts, T., May 2013. Metal concentrations in soils and sediments in disturbed and restored areas of a historical coal mining site in SW Missouri (geospatial science).

8) Arnall, C., August 2014. Trend analysis of contaminated channel bar sediment storage in Big River, St. Francois County, Missouri (geospatial science)

9) Bassett (Schlomer), G., May 2015. Floodplain sedimentation and contamination in a North Carolina Piedmont watershed effected by agriculture clearance and mining (geospatial science).

10) Armstrong-Smith, S., May 2017. Stream bacteria concentrations and variability at recreational access sites, Greene County, Missouri (geospatial science).

### PhD Committees

1) Witt III, E.C., Dec 2013. Geochemical and isotopic characterization of lead in fugitive dust from unsurfaced roads in Missouri. Department of Geology and Geophysics, Missouri University of Science and Technology, Rolla, MO.

2) Martin, D.J., May 2014. Large woody debris distribution and geomorphic effects in Big River, Missouri. Department of Geography, University of Tennessee, Knoxville, TN. (Adjunct faculty member)

### MS Committee Member (Graduated students only)

Carden-Jessen, M., 1998 (resource planning)

Miner, M., 1998 (resources planning) Penticuff, M, 2002 (biology) Reed, C., 2005 (natural and applied science) Krauss, M., 2005 (chemistry) Wurglitsch, D.J. 2005 (natural and applied science) Obejo, Ron, 2004 (chemistry) Parnell, B., 2006 (biology) Hunsinger-Nelson, T., 2006 (geospatial science) Woosley, R., J., 2006 (geospatial science) Haack, J., 2006 (geospatial science) Huggins, N., 2006 (geospatial science) Dintellman, D., 2006 (geospatial science) Saitta, A., 2008 (biology) Robinson, E., 2009 (geospatial science) Pearson, B., 2010 (biology) Davis, S., 2010 (biology) Tomlin, K., 2010 (geospatial science) Sturnfield, E., 2011 (geospatial science) Miller, J., 2012 (biology) Rudolph, J., 2012 (biology) Dickson, D., 2012 (biology) Spinks, J., 2013 (MNAS-geology) Hargiss, E., 2013 (anthropology) Weedman, N., 2017 (geospatial science)

### UNDERGRADUATE RESEARCH PROJECTS (study reports and poster presentations since 2005)

### **Individual Projects**

1) Sally Hinton, 2005. Geography, What are the effects of the construction of the walkway at Ward Branch 2) Brandon Kienenberger, 2005. Geology, Sediment deposition study of clast size in Honey Creek 3) Andrew Kowalski, 2005. Geography, Examining storm events at Wilson Creek 4) Emily Austin, 2006. Geology, Sediment metal pollution trends in Ward branch watershed 5) Sharon Henslee, 2006. Geography, Geomorphic evaluate of terrace soil maps to find archaeology sites 6) Douglas Hughes, 2006. Geography, Channel analysis of the Lower Finley River 7) Marissa Berger, 2007. Geology, Analysis of Ozarks Glade soils 8) Phillip McCutcheon, 2007. Geography, Analysis of Finley River discharge trends 9) Jennifer Rideout, 2007. Anthropology, Analysis of James River floodplain and terrace soils 10) Derrick Sinclair, 2007. Geography, Soil fertility on CRP lands 11) Mary Ann Siple, 2007. Anthropology: History of floodplain deposition along Wood Branch 12) Amanda Williams, 2007. Geography, Geomorphic changes of Ravenwood tributary channel 13) Brian Yerkas, 2007. Geography, Textural variations in channel bars from the Arkansas River 14) Zach Reineri, 2008. Geography, Meandering along the Big River-: analysis of slope and sinuosity 15) Drew Thomas, 2008. Geology, Big River mining sediment lithology 16) Matt Grootens, 2008. Geography, History of Channel Instability along a Missouri Bootheel River 17) Jim Box, 2009. Geology, Effects of Impervious Area on Floods in Wilson Creek

18) William Morresy, 2009. Geography, Distribution and geomorphic effects of Large Woody Debris on a small tributary to the James River

19) Anastasia Doenig, 2009. Geography, Channel and bar changes on the Jacks Fork and Current Rivers using aerial photographs

20) Netasha Randolph, 2009. Geography, Erosion and sedimentation in a small urban stream in Mt. Vernon, Missouri.

21) Ben Freeman, 2010. Geography, Channel Assessments of Ozark Streams

22) Daniel Williams, 2010. Geography, PAH sources in Springfield.

23) Caroline Pavlowsky, 2010. Geography, Sustainability & Energy Use in Springfield, MO

24) Susan Helwig, 2010. Big River sediment contamination trends

25) Sarah Morris, 2010. Biology, Metal analysis of commercial top soil products

26) Stephanie Prevedel, 2010. Chemistry, Stream water quality and carbon transport, Springfield, MO

27) Terry Phillips, 2010. Chemistry, Urban stream quality & carbon transport

28) Brandon Ives, 2011. Geology, Rainwater hydrology on the lot scale: a Springfield test study

29) Ezekiel Kuehn, 2011. Geography, In-channel water loss and grain in Crane Creek, Missouri

30) Annalee Hoy, 2011. Geology, Did construction at Cherokee Middle School cause a flood problem?

31) Mark Urbanek, 2011. Geology, Analysis of the effects of slope on sinkholes

32) Justin Foss, 2011. Geography, Assessment of Galloway Branch Waterway improvements, Sequiota Park, Springfield, Missouri

33) Erin Murray, 2011. Biology, Mining history, sediment contamination, and ecological effects in the Big River, St. Francois County, se Missouri,

34) Aaron Pavlowsky, 2011. Geography, Bluefields Bay Fish and Habitat Assessment Project

35) Eleanor Draper, 2011. Geography, Economic evaluation of wetland and beach restoration projects along the Gulf Coast of the United States

36) Tiana Smith, 2012. Geography, Precipitation effects on discharge for three Missouri springs,

37) Joshua Elson, 2012. Geology, Seasonal relationships for discharge and precipitation for the Big River at Byrnes Mill, Missouri,

38) Felix Corrodi, 2013. Geography, Geomorphic characterization of Spring Branch using two different discharge measurement methods.

39) Kim Garland, 2013. Geology, Nutrient concentrations and sources in Roark Creek, Branson, MO.

40) Misty Carr, 2013. Geography, Land use and soil effects on flooding in eastern Springfield.

41) Dominique Knowles, 2013. Geography, House age and paint effects on soil lead concentrations in residential soils

42) Becka Giboney, 2013. Geology, Presence and implications of Mn-Cr system elements within the Weaubleau structure area, Southwest Missouri.

43) Joshua Elson, 2013. Geology, Seasonal variability of rainfall-runoff relationships for Missouri watersheds44) Sara Cheek, 2013. Biology, Temperature variation on Lake Springfield relative to the James River Power Station

45) Michael Jahnke, 2013. Geology, Effect of slope and flow time on fluvial geomorphology using a stream table

46) Jennifer Witt, 2014. Geology, Mining chat contributions to the Big River in St. Francois Co."

47) Liesel Benecke, 2014. Biology, Floodplain contamination caused by historical lead mining, Big River, SE Missouri

48) Michael Jahnke, 2014. Geology, Physical and Geochemical Characteristics of Agricultural Soils from Southern Jamaica

49) Felix Corrodi, 2014. Geography, Bank Erosion Assessment of Wilson Creek in Springfield, Missouri50) Alex Olive, 2014. Geology, Soil residuum geochemistry and variability formed from Burlington Limestone, Greene County, Missouri"

- 51) Randal Grace, 2014: "Shoal Creek Water Quality and Effect of Chicken Houses on Nutrient levels"
- 52) Jaime Isham, 2014: "Septic System Care and Effects on Water Quality in the James River Watershed"
- 53) Chris Watson, 2014: "Riparian Forest Composition along the James River: Relationship to Bank Stability."
- 54) Joe Nash, 2014: "Bank Erosion History along the James River"
- 55) Ali Keppel, 2015. Geology, Analysis of mining-contaminated floodplain cores, Big River, SE MO.
- 56) Thomas Pesek, 2015. Influence of riparian forest buffer width on bank erosion rates, Big River, SE MO.
- 57) Joe Nash, 2015. Downstream patterns of bar disturbance zones along the James River.
- 58) Emma Gibson, 2015. "Increasing flood trends in Ozark rivers"
- 59) Taylor Sherman, 2015. "Channel form and discharge capacity in Big Barren Creek"
- 60) Kelly Rose, 2016 (GLG) Pb concentrations in road soils and sediments, Springfield, Missouri.
- 61) Emma Gibson (GLG), "Flood hydrology of Missouri Streams"
- 62) Joe Nash (GRY), "Big Barren stream monitoring network"
- 60) Kelly Rose, 2016 (GLG) Pb concentrations in road soils and sediments, Springfield, Missouri.
- 61) Emma Gibson, 2016 (GLG), "Flood hydrology of Missouri Streams"
- 62) Joe Nash, 2016 (GRY), "Big Barren stream monitoring network"
- 63) Ashton Jones, 2016 (GRY-GLG)- "Loss on ignition- protocol testing"
- 64) Jameelah Rodriquez, 2016 (GLG)- "Sediment sources in Big Barren Creek"
- 65) Ashlee Huerta, 2016 (AGR)- "Soil and vegetation monitoring in Mark Twain National Forest"
- 66) Gregory Kelly, 2017 (GSS)- "Beach erosion along the South Coast of Jamaica"
- 69) Josh Hess, 2017 (GRY)- "Mangrove threats and conservation in Galleon Fish Sanctuary, South Coast Jamaica" (2nd place)
- 70) Jared Blau, 2017 (GSS)- "Attitudes about Rastafari influence on Jamaican culture"
- 71) Tessa Mills, 2017 (GLG)- "Geologic and environmental features highlighted in Jamaican art"

72) Madalyn Behlke-Entwisle, 2017 (GRY)- "Assessing coral reef threats and remediation techniques on the south coast of Jamaica."

### **Group Projects**

1) (n=3), D. Williams, A. Stueve, and M. Gant, 2010. Influence of Valley water mill on nutrient and bacteria concentrations in flow from Sanders Spring. (GGP)

- 2) (n=2), R. Culver and C. Arnall, 2010. Analysis of sediment cores from Lake Springfield. (GGP)
- 3) (n=2), D. Fouts, and K. Newbold, 2010. Influence of slope and land use on soil carbon content.(GGP)
- 4) (n=3), R. Jaspering, T. Penner, and S. Helwig, 2010. Table Rock Lake shoreline erosion rates
- 5) (n=2), Z. Wilkinson, and E. Freeman, 2010. Gravel bar texture variations along the James River. (GGP)
- 6) (n=3), B. Kinworthy, J. Thomas, and B. Kennedy, 2010. Differences between urban and rural streams. (GGP)
- 7) (n=2), B. Brummel and T. Beeman, 2015. Chemistry, Nutrient concentrations in urban streams.

### UNDERGRADUATE SENIOR THESES (at Carthage College, WI, <1997)

| DeMerse, S., 1995:   | History of sedimentation and land use along the lower Pike River                     |
|----------------------|--|
| Janssen, M., 1995:   | Erosion control compliance for suburban construction sites in Kenosha                |
| Kaufman, A., 1995:   | Lead and zinc distribution within the Ellis Branch of the Galena River               |
| Petersen, T., 1995:  | Snowfall trends in the Upper Midwest, 1949-1994                                      |
| Kucharski, T., 1996: | Sediment-bound and dissolved nitrogen transport in the Milwaukee River               |
| Laehn, C., 1996:     | Bluff erosion rates along the Lake Michigan shoreline, Racine County, 1978 to 1990   |
| Barsch, G., 1996:    | Relationship of tropospheric ozone concentrations to socio-economic factors          |
| Carlson, J., 1996:   | Accelerated floodplain sedimentation caused by wetland drainage along the Pike River |

#### **TEACHING-courses taught**

<u>Missouri State University-undergraduate courses</u> GRY 135-Atmospheric Science (General Education) GRY 142-Introduction to Physical Geography (General Education) GRY 240-Earth Science for Teachers GRY 348-Geomorphology GRY 498-Senior Seminar for Geography and Planning

Missouri State University-graduate courses

GRY 650/550-Fluvial Geomorphology

RPL/GEO 700-Introduction to Resource Planning/Geospatial Science (Graduate Seminar)

RPL 701-Research Methods in Resource Planning

RPL/GEO 751-Advanced Physical Geography: watershed management, riparian and wetland soils, watershed hydrology, human impacts on watersheds, and sustainable watersheds.

RPL 752/GEO 770- Advanced Field Methods: Watershed monitoring techniques & Geomorphic channel assessment. Included field work throughout the Ozarks and in Wisconsin, Arkansas, North Carolina, and Jamaica.

<u>Carthage College-undergraduate courses</u> Introduction Physical Geography Environmental Science Soils and Society/Soil Geography with lab Climatology

Process Geomorphology Environmental Hazards Hydrology Quantitative Methods

#### **IMMEDIATE SUPERVISOR** Dean, College of Natural and Applied Science

#### **GENERAL FUNCTION**

The Director, OEWRI helps to assure that the OEWRI operates in accordance with its mission to expand the University's capacity to address the region's environmental and water resource issues.

#### MINIMUM ACCEPTABLE QUALIFICATIONS

Education: An earned doctorate in a natural or environmental science is required.

<u>Experience</u>: Must be a senior faculty member (Associate rank or above) in the College of Natural and Applied Sciences (CNAS). A record of teaching, research, and service in environmental and water quality research, as demonstrated by recent publications, grants, and presentations, is required. Successful grant writing and grant administration experience is required.

#### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

1. Facilitates the development of the OEWRI by developing collaborative efforts with environmental protection agencies and appropriate state and federal agencies, establishing regional partnerships with environmental and water quality organizations, and coordinating activities with the College of Natural and Applied Sciences' departments and other centers and units.

2. Helps to assure that the OEWRI operates in accordance with its mission by overseeing and conducting applied and basic research focusing on the relationship between land use patterns and water quality and quantity and serving as a clearinghouse for research results pertaining to the region's water supply and quality.

3. Facilitates access to information about the environment and water resources by directing the dissemination of information and the provision of educational and training services.

4. Helps to address issues related to regional growth and water quality and quantity by providing research results to decision-makers based on stringent research protocols.

5. Helps to assure the financial viability of OEWRI by identifying research opportunities, developing research proposals, writing and administering grants and contracts, overseeing external funding efforts, and developing and administering budgets.

6. Remains actively involved as a faculty member of CNAS by maintaining a half-time teaching/research assignment load within an academic department.

7. Contributes to the overall success of the College of Natural and Applied Sciences by performing other duties as assigned.

#### **SUPERVISION**

The Director, OEWRI is supervised by the Dean, College of Natural and Applied Science and supervises project Manager and other staff, graduate assistants, and student workers.