

Richard Ross Shaker, Ph.D.

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RESEARCH INTERESTS: Sustainable development planning; Landscape ecology; Global change; Spatial analysis

My main scientific investigation is in the realm of human-landscape coevolution and global ecology. As *Homo sapiens* continues to stretch the Earth beyond its biocapacity it is integral to elucidate their patterns and processes through space and time. My Laboratory for Spatial and Sustainability Sciences (S³ Lab) is actively investigating interactions between natural and social systems for sustainable development, environmental planning, and natural resources management purposes. Projects include exploration of aquatic ecological stressors, examination of sustainable landscape designs, geomorphological processes and susceptibility mapping, non-point source pollution modeling, evaluation of development indices, and continental scale analysis of sustainable urbanization. Research locations include: the Upper Mississippi and Great Lakes Watersheds, Adirondack Park, Toronto, Europe, Romania and the Republic of Moldova. My future research looks at operationalizing sustainable development across spatial and temporal scales, while theoretically focusing at the nexus of evolutionary theory, spatial and sustainability sciences.

1. FORMAL EDUCATION

- 2011 - University of Wisconsin – Milwaukee: Ph.D. in Geography
Dissertation title: “*An Investigation of Sustainable Urbanization and Landscape Form: The Republic of Moldova Case Study.*”
Co-advised by: Christopher De Sousa (Geography/Environmental Planning) and Timothy J. Ehlinger (Biological Sciences/Ecology).
- 2007 - University of Wisconsin – Milwaukee: M.Sc. in Geography
Thesis title: “*Agricultural Land Fragmentation and Biological Integrity: Impacts of a Rapid Changing Landscape in Southeastern Wisconsin.*”
- 2005 - University of Wisconsin – Milwaukee: Graduate Certificate in Geographic Information Science (GIS), School of Architecture and Urban Planning
- 2004 - University of Wisconsin – La Crosse: B.Sc. in Geography (Departmental Honors)
Minor concentration: Earth Science

Languages: Fluent in English with working knowledge in Romanian and Russian

Citizenship: United States of America

2. FACULTY APPOINTMENTS

2014 – Pres. Assistant Professor of Environmental & Urban Sustainability: Ryerson University
2014 – Pres. Graduate Programs in Environmental Applied Science & Management: Ryerson University
2014 – Pres. Graduate Program in Spatial Analysis: Ryerson University
2013 – 2014 Assistant Professor of Geography: Binghamton University (BU), SUNY
2011 – 2013 Visiting Assistant Professor of Environmental Studies/Geography: BU, SUNY

3. PEER-REVIEWED PUBLICATIONS (** Denotes post-doc; * student)

[23] **Shaker, R.R.**, A.D. Yakubov* S.M. Nick, E. Vennie-Vollrath, T.J. Ehlinger, & K.W. Forsythe. (2017) “Predicting Aquatic Invasion in Adirondack Lakes: A Spatial Analysis of Lake and Landscape Characteristics.” *Ecosphere*. DOI: 10.1002/ecs2.1723

- [22] **Shaker, R.R.** (2017). "Examining Sustainable Landscape Function Across the Republic of Moldova." *Habitat International*. DOI: 10.1016/j.habitatint.2016.11.002
- [21] Brown, C. **, **R.R. Shaker**, & R. Das. (2016) "A Review of Approaches for Measuring and Evaluating Urban Resilience Outcomes." *Environment, Development and Sustainability* : 1-18. DOI: 10.1007/s10668-016-9891-7
- [20] **Shaker, R.R.** & I. Sirodoev. (2016) "Assessing Sustainable Development Across Moldova using Household and Property Composition Indicators." *Habitat International* 55: 192-204. DOI: 10.1016/j.habitatint.2016.03.005
- [19] Forsythe, K.W., C.H. Marvin, D.E. Mitchell, J.M. Aversa, S.J. Swales, D.A. Burniston, J.P. Watt, D.J. Jakubek, M.H. McHenry, & **R.R. Shaker**. (2016) "Utilization of bathymetry data to examine lead sediment contamination distributions in Lake Ontario." *AIMS Environmental Science* 3(3): 347-361. DOI: 10.3934/environsci.2016.3.347
- [18] Forsythe, W., C. Marvin, C. Valancius, J. Watt, J. Aversa, S. Swales, D. Jakubek, & **R. Shaker**. (2016) "Geovisualization of Mercury Contamination in Lake St. Clair Sediments." *Journal of Marine Science and Engineering* 4(19): 1-10. DOI: 10.3390/jmse4010019
- [17] **Shaker, R.R.** (2015) "The Well-being of Nations: An Empirical Assessment of Sustainable Urbanization for Europe." *International Journal of Sustainable Development & World Ecology* 22(5): 375-387. DOI: 10.1080/13504509.2015.1055524
- [16] **Shaker, R.R.** (2015) "The Spatial Distribution of Development in Europe and Its Underlying Sustainability Correlations." *Applied Geography* 63: 304-314. DOI: 10.1016/j.apgeog.2015.07.009
- [15] **Shaker, R.R.**, & S.L. Zubalsky*. (2015) "Examining Patterns of Sustainability Across Europe: A Multivariate and Spatial Assessment of 25 Composite Indices." *International Journal of Sustainable Development & World Ecology* 22(1): 1-13. DOI: 10.1080/13504509.2014.923058
- [14] **Shaker, R.R.**, & T.J. Ehlinger. (2014) "Exploring Non-linear Relationships Between Landscape and Aquatic Ecological Condition in Southern Wisconsin: A GWR and ANN Approach." *International Journal of Applied Geospatial Research* 5(4): 1-20. DOI: 10.4018/ijagr.2014100101
- [13] **Shaker, R.R.**, & C.J. Rapp*. (2013) "Investigating Aquatic Invasive Species Propagation within the Adirondack Region of New York: A Lake and Landscape Approach." *Papers in Applied Geography* 36: 200-209.
- [12] **Shaker, R.R.**, C. Rapp*, & A.D. Yakubov*. (2013) "Examining Patterns of Aquatic Invasion within the Adirondacks: An OLS and GLM Approach." *Middle States Geographer* 46: 1-11.
- [11] **Shaker, R.R.**, G.J. Espinosa*, & E.Y. Chin*. (2012) "Exploring Landscape Form and Upland Forest Fragmentation on Aquatic Condition in Susquehanna River Basin Headwaters." *Papers of the Applied Geography Conferences* 35: 10-20.
- [10] Ehlinger, T., L. Tofan, M. Bucur, J. Enz, J. Carlson, & **R. Shaker**. (2011) "Applications of a Participatory Ex Ante Assessment Model for Environmental Governance and Visualizing Sustainable Redevelopment in Gorj County, Romania." In: Andreopoulou, Z., B. Manos, N. Polman, D. Viaggi (Ed.) *Agricultural and Environmental Informatics, Governance, and Management: Emerging Research Applications*, pp. 61-86. IGI Global.
- [9] **Shaker, R.R.**, G. Sirodoev, & I. Sirodoev. (2011) "Landslide Susceptibility in the Republic of Moldova: A Landscape and Multivariate Approach for Regional Assessment." *Papers of the Applied Geography Conferences* 34: 288-298.
- [8] Bucur, M., L. Tofan, T.J. Ehlinger, A.M. Buiculescu, D. Vasile, **R. Shaker**, J. Jensen, & A. Ritter. (2011) "The integrate ecological monitoring aspects presentation for Siutghiol (Mamaia) Lake using GIS technology." *Ovidius University Annals, Biology-Ecology Series* (15): 73-76.
- [7] Eno, J., & **R. Shaker**. (2011) "Mapping Death Penalty Mitigation." *NLADA Cornerstone* 32(1): 8-13.
- [6] **Shaker, R.**, L. Tofan, M. Bucur, S. Costache, D. Sava, & T. Ehlinger. (2010) "Land Cover and Landscape as Predictors of Groundwater Contamination: A Neural-Network Modelling Approach Applied to Dobrogea, Romania." *Journal of Environmental Protection and Ecology* 11(1): 337-348.
- [5] **Shaker, R.R.**, & T.D. Drezner. (2010) "A New Technique for Predicting the Sky-View Factor for Urban Heat Island Assessment." *Geographical Bulletin* 51(2): 85-96.
- [4] **Shaker, R.R.** (2010) "Investigating Land Cover and Urban Pattern Impacts on Watershed Integrity: A

GWR and ANN Approach." *Papers of the Applied Geography Conferences* 33: 24-36.

- [3] **Shaker, R.R.** (2010) "Indicators and the Quest for Sustainable Development: Local Geographic Needs... Anyone?" *Geographica Timisiensis* 19(1): 163-171.
- [2] **Shaker, R.R.**, A.I. Crăciun, & Ionela Grădinaru. (2010) "Relating Land Cover and Urban Patterns to Aquatic Ecological Integrity: A Spatial Analysis." *Geographia Technica* 9(1): 76-90.
- [1] **Shaker, R.R.**, G.A. Rybarczyk, & J. Eno. (2009) "Relating Environmental and Socioeconomic Stressors to Violent Crime: Evaluating Three Major Cities in the United States." *Papers of the Applied Geography Conferences* 32: 411-419.

4. AGENCY & PEER-REVIEWED TECHNICAL REPORTS (** Denotes post-doc; * student)

- [5] Brown, C.**, **Shaker, R.R.**, Gorgolewski, M., Papp, V.*, & Alkins, S*. (2016). "Urban resilience in Canada: Research priorities and best practices for climate resilience in cities." [Technical Report]. 1-39. *Social Sciences and Humanities Research Council (SSHRC) of Canada*. Grant No. 421-2015-1037. Available from: <http://digital.library.ryerson.ca/islandora/object/RULA%3A4286>.
- [4] Ehlinger, T., L. Tofan, J. Enz, J. Carlson, T. Heatherington, C. De Sousa, V. Carlson, **R.R. Shaker**, M. Bucur, C. Whitehead, C. Korfmacher, M. O'Leary, & J. Mazingo. (2008) "Ecological and Sustainable Redevelopment of Mining Zones in Gorj County, Romania." *USTDA Gorj County Report* for: The Romanian National Agency for the Redevelopment of Mining Zones. 1-145. *U.S. Trade and Development Agency (USTDA)*.
- [3] Novotny, V., T.J. Ehlinger, E. Manolakos, A. Bartosova, N. O'Reilly, D. Bedoya, K. McGarvey, J. Brooks, D. Beach, J. Farah, & **R.R. Shaker**. (2007) "Developing Risk Propagation Model for Estimating Ecological Responses of Streams to Anthropogenic Watershed Stresses and Stream Modification." TECHNICAL REPORT NO. 15. Center for urban and environmental studies, Northeastern University. 1-150. *EPA/NSF/USDA Star Watershed Program*. Grant No. R83-0885-010.
- [2] O'Reilly, N., T.J. Ehlinger, & **R.R. Shaker**. (2007) "The Development and Evaluation of Methods for Quantifying Risk to Fish in Warm-water Streams of Wisconsin Using Self Organized Maps: Influences of Watershed and Habitat Stressors." TECHNICAL REPORT NO. 14. Center for urban and environmental studies, Northeastern University. 1-122. *EPA/NSF/USDA Star Watershed Program*. Grant No. R83-0885-010.
- [1] **Shaker, R.R.**, & T.J. Ehlinger. (2007) "Agricultural Land Fragmentation and Biological Integrity: The Impacts of a Rapidly Changing Landscape on Streams in Southeastern Wisconsin." TECHNICAL REPORT NO. 11. Center for urban and environmental studies, Northeastern University. 1-50. *EPA/NSF/USDA Star Watershed Program*. Grant No. R83-0885-010.

5. CARTOGRAPHIC PUBLICATIONS

Sirodov, G., T. Constantinov, I.G. Sirodov, M. Mucilo, E. Mișul, I. Brînză, T. Stîngă, A. Madan, E. Tofan, & **R.R. Shaker**. (2010) "Bine ați venit în Moldova istorică! Добро пожаловать в Молдову историческую! Welcome to historic Moldova!" *Touristic Map of Historical Objects and Places for the Republic of Moldova*. www.moldovamap.md. Agency on Innovations and Technology and Marketing-Trend Ltd., MD. www.marketingtrend.md.

6. SCHOLARLY PUBLICATIONS- IN REVIEW/PREPARATION (* student)

[Removed to Ensure Blind Peer-Review]

Please contact me for more information regarding articles in process.

7. INVITED PRESENTATIONS & ADDRESSES

- **Shaker, R.R.** "Predicting aquatic invasion in Adirondack lakes: A Spatial Analysis of Lake and Landscape Conditions." *Adirondack Park Invasive Plant Program (APIPP) Spring Partnership Meeting*, Raybrook, NY. April 28th, 2016
- **Shaker, R.R.** "Landscape Analyses of Coupled Human-Environmental Systems: Examples from Wisconsin, Romania, and the Republic of Moldova." *Department of Geological Sciences and Environmental Studies Colloquium Series*. Binghamton University, Vestal, NY. December 2, 2011.
- **Shaker, R.R.** "Urbanization and Landscape Change: Does Evolution Hold the Keys to Reaching Global Sustainability?" *Evolutionary Studies Seminar Series*. Binghamton University, Vestal, NY. September 26, 2011.
- **Shaker, R.R.** "A Geographical Perspective to Environmental Health and Hazards: Case Studies from the United States, Romania, and the Republic of Moldova." 3rd International Medical Congress for Students and Young Doctors, "MedEspera 2010", State Medical and Pharmaceutical University "Nicolae Testemitanu", Chisinau, Republic of Moldova. May 19-21, 2010
- **Shaker, R.R.** "Unlocking Open Source and Freeware Resources for GIS, Cartography, and Spatial Analysis." Faculty of Geography, "Babeş-Bolyai" University, Faculty of Geography, Cluj-Napoca, Romania. December 18, 2009
- **Shaker, R.R.** "Relating Environmental and Socioeconomic Stressors to Violent Crime: Evaluating Three Major Cities in the United States." *National Institute of Justice, 10th Annual Crime Mapping Research Conference*. New Orleans, LA. August 19-22, 2009
- **Shaker, R.R.** "UW-Richland- A Great Place to Start." *Convocation Address*. UW-Richland, Richland Center, WI. September 6, 2008
- **Shaker, R.R.** "The Formula for Success: Life after Graduating from Kickapoo High School." *High School Graduation Commencement Address*. Kickapoo High School, Viola, WI. May 24, 2008

8. CONFERENCE PRESENTATIONS (* Denotes student)

- **Shaker, R.R.** "Examining Sustainable Landscape Function Across the Republic of Moldova." *The 39th Applied Geography Conference*, Louisville, KY. October 26 – 28, 2016
- Forsythe, W., D. Mitchell, J. Aversa, S. Swales, **R. Shaker**, & D. Jakubek. (Poster Format) "Utilizing Bathymetry Relationships in Contaminated Sediment Analysis." *The 28th Applied Geographic Information Processing (Angewandte Geographische Informationsverarbeitung) Symposium*. Salzburg, Austria July 6-8, 2016
- **Shaker, R.R.** "The Spatial Distribution of Development in Europe and its Underlying Sustainability Correlations." *The 112th Annual Meeting of Association of American Geographers*. San Francisco, CA. March 29-April 2, 2016
- **Shaker, R.**, V. Bowler*, A. Yakubov*, E. Vennie-Vollrath. "Predicting aquatic invasion in Adirondack lakes." *The 51st Central Canadian Symposium on Water Quality Research*, Toronto, Canada. February 23-24, 2016
- Forsythe, W., C. Marvin, D. Mitchell, C. Valancius, J. Watt, J. Aversa, S. Swales, **R. Shaker**, & D. Jakubek. "An Examination of Sediment Contamination in Lake St. Clair Utilizing Geospatial Interpolation and 3D." *The 51st Central Canadian Symposium on Water Quality Research*, Toronto, Canada. February 23-24, 2016
- K. Chin*, **R.R. Shaker**. "Evaluating patterns of sustainability across the contiguous United States: Application of the United Nation's Indicators of Sustainable Development Report." *The 64th Annual Conference for the Canadian Association of Geographers*, Vancouver, BC, Canada. April 8-12, 2015
- **Shaker, R.R.** "Examining Patterns of Sustainability Across Europe: A Multivariate and Spatial Assessment of 25 Composite Indices." *The 111th Annual Meeting of Association of American Geographers*, Chicago, IL. April 20-25, 2015

- **Shaker, R.R.** “Assessing Sustainable Urbanization through Space and Time: Application of the Wellbeing of Nations Indices Across Europe.” *The 110th Annual Meeting of Association of American Geographers*, Tampa, FL. April 8-12, 2014
- **Shaker, R.R.,** & C.J. Rapp*. “Investigating Aquatic Invasion within the Adirondacks: A Lake and Landscape Approach.” *The 36th Applied Geography Conference*, Annapolis, MD. October 30 – November 1, 2013
- **Shaker, R.R.,** & S.L. Zubalsky*. “Assessing Sustainable Urbanization Across Europe: *Application of the Wellbeing of Nations Index.*” *The 36th Applied Geography Conference*, Annapolis, MD. October 30 – November 1, 2013
- **Shaker, R.R.,** C.J. Rapp*, & A.D. Yakubov*. “Examining Patterns of Aquatic Invasion within the Adirondacks: A Lake and Landscape Approach.” *2013 Middle States Division of AAG Annual Meeting*, Buffalo State, Buffalo, NY. October 18-19, 2013
- **Shaker, R.R.** “Assessing Sustainable Development using Additive Household Community and Property Composition Indices.” *The 108th Annual Meeting of Association of American Geographers*, New York, NY. February 24-28, 2012
- **Shaker, R.R.,** G.J. Espinosa, & Erika Y. Chin “Exploring Landscape Impacts on Aquatic Condition in the Headwaters of the Susquehanna River.” *The 35th Applied Geography Conference*, Minneapolis, MN. October 10-12, 2012
- **Shaker, R.R.** “Landslide Susceptibility in the Republic of Moldova: A Landscape and Multivariate Approach for Regional Assessment.” *The 34th Applied Geography Conference*, Redlands, CA. October 19-21, 2011
- Eno, J., & **R.R. Shaker.** “Maps and Mitigation.” *Clarence Darrow Death Penalty Defense College Training Symposium*. DePaul University College of Law, Chicago, IL. May 25, 2011
- Eno, J., & **R.R. Shaker.** “Using Community Mapping to Explain Your Client’s Environment.” *NLADA Life in the Balance and NASAMS’ 18th Annual Sentencing Advocacy Training “Dedication is the Difference”* Lake Buena Vista, FL. March 5-8, 2011
- **Shaker, R.R.** “Investigating Landscape Impacts on Watershed Integrity: A GWR and ANN Approach.” *The 33rd Applied Geography Conference*, Fort Worth, TX. October 20-23, 2010
- **Shaker, R.R.** “Investigating Sustainable Development Indicators and Practice.” *International Conference of Young Researchers*, Chisinau, Republic of Moldova. November 5 & 6, 2009
- **Shaker, R.R.** “Regional Smart Growth Planning and GIS: A Development Plan for the Littoral Zone, Romania.” *XVII Simpozionul International, Sisteme Informationale Geografice*. Iasi, Romania. October 16 & 17, 2009
- Eno, J., & **R.R. Shaker.** “Maps and Mitigation.” *Clarence Darrow Death Penalty Defense College Training Symposium*. DePaul University College of Law, Chicago, IL. June 5, 2009
- **Shaker, R.R.,** K. Dunphy, M. Cherubini, & J. Jenson. “Sustainable Development, Smart Growth, and Urban Design: Lac Tabacarie, Romania.” *Sustainable Development Symposium*. SARUP, UW-Milwaukee, Milwaukee, WI. April 10, 2009
- Eno, J., & **R.R. Shaker.** “Mapping Risk Factors.” *2008 Annual Death Penalty Seminar*. The Center for Justice in Capital Cases. DePaul University College of Law, Chicago, IL. October 10 & 11, 2008
- Ehlinger, T.J., L. Tofan, **R.R. Shaker,** D. Vasile, & M. Bucur. (Poster Format) “Characterization of the Nutrients Issues in Tasaul Watershed.” *The 17th Annual Symposium of the Danube Delta National Institute*. Section II – Ecological Restoration & Human Impact. Tulcea, RO. September 18-20, 2008
- Ehlinger, T.J., L. Tofan, **R.R. Shaker,** & M. Bucur. “Sustainable Development in Coastal Zones and Watersheds.” *International Interdisciplinary Research Program*. Ovidius University, Constanta, Romania. August 21 & 22, 2008
- Eno, J., & **R.R. Shaker.** “Accumulation of Socioeconomic Stressors and Violent Crime: Evaluating Economic, Family, Education, and Health Factors for Measuring and Displaying Neighborhood Effects in Chicago, Illinois.” *Clarence Darrow Death Penalty Defense College Training Symposium*. DePaul University College of Law, Chicago, IL. May 29, 2008

- Ehlinger, T.J., **R.R. Shaker**, A. Ortenblad, & J. Grzeski. "The Use of Biological Indicators for the Evaluation of Multiple Stressors and the Identification of Impairments in Streams." *Watershed Symposium*. University of Wisconsin – Green Bay. March 19, 2008
- **Shaker, R.R.** (Poster Format) "Landscape Ecology and Cellular Automation: Investigating Patch Transition in Exurbia." *The 48th Annual Meeting of ACSP*. Milwaukee, WI. October 18-24, 2007
- Ehlinger, T.J., L. Tofan, **R.R. Shaker**, & M. Bucur. "The Development of Indicators for Sustainable Development." *International Interdisciplinary Research Program*. Ovidius University, Constanta, Romania. August 23 & 24, 2007
- Mohapatra, R., **R.R. Shaker**, & C. Wu. "Landscape Ecology and Cellular Automation: Investigating Patch Transition in Exurbia." *The 103rd Annual Meeting of Association of American Geographers*. San Francisco, CA. April 17-21, 2007
- Ehlinger, T.J., L. Tofan, **R.R. Shaker**, & M. Bucur. "The Development of Indicators of Environmental Stress and Sustainable Development." *International Interdisciplinary Research Program*. Ovidius University, Constanta, Romania. August 24 & 25, 2006
- Anholzer, D., J. Grzesik, B. McDowell, **R.R. Shaker**, & T.J. Ehlinger. "Biological Monitoring of the Lower Fox River Watershed." *Watershed Symposium*. UW – Green Bay. March 14 & 15, 2006
- **Shaker, R.R.**, & R. Wingate. "Bikeways in the Greater La Crosse Area." *56th Annual Meeting of the West Lakes Division of Association of American Geographers and 58th Annual Meeting of the Wisconsin Geographical Society*, Oshkosh, WI. October 7-9, 2004

9. RESEARCH FUNDING/ SELECTED PROPOSALS

- 2017 – 2019 "Review and Application of Sustainable Development Indicators for Toronto." (PI). *Social Science and Humanities Research Council (SSHRC)*. \$75,000. Under Review.
- 2015 – 2017 "Village of Afton, Strategic Plan for Flood Mitigation, Economic and Riverfront Revitalization" (PI). *New York State Department of State; Empire State Development*. \$36,910. **Funded**
- 2015 – 2016 "What Effects will the Quest for Energy and Natural Resources have on our Society and our Position on the World Stage?" (PI). *SSHRC Knowledge Synthesis Grant*. \$25,000. **Funded**
- 2015 – 2016 "A Prototype for Reaching Sustainability through Local Business Improvement Initiatives: Roncesvalles Village." (PI). *RECODE. J.W. McConnell Family Foundation*. \$8,500. **Funded**
- 2012 – 2016 "CNH: Cities as Units of Analysis for Coupled Natural and Human Systems." (Co-PI). *NSF, Program: Dynamics of Coupled Natural and Human Systems*. \$1,241,206. Not funded.
- 2012 – 2016 "Flood Risk as Framework for Mitigation and Sustainable Landscape Change: Assessing the Susquehanna and Prut River Basins." (PI). *National Science Foundation, Program: Science, Engineering and Education for Sustainability (SEES)*, \$417,601. Not funded.
- 2010 – 2011 United Nations Educational, Scientific and Cultural Organization (UNESCO) Fulbright Fellowship. Division of Ecology and Earth Sciences, UNESCO headquarters in Paris. With 165 Fulbright Fellows from 76 countries for two positions. **Selected as an alternate.**
- 2010 – 2011 "Incorporating Indicators of Sustainable Development into Local and Regional Planning." (PI). Environmental Protection Agency (EPA) Science to Achieve Results (STAR). \$35,000. Favorable reviews: (1) excellent, (1) very good, (1) good, but was not funded.
- 2009 – 2010 "Sustainability, Landscapes, and Human Behavior: The Republic of Moldova Case Study." (PI). Host: Academy of Science of Moldova, Institute of Ecology and Geography, Chisinau, Republic of Moldova. *J. William Fulbright Fellowship*, The United States Department of State, Bureau of Educational and Cultural Affairs. \$75,000. **Funded.**

10. RESEARCH EXPERIENCE

- 2008 – 2009 Research Associate, Technical assistance for phase 1 of the Romania Black Sea Coastal Erosion Control Program. USTDA. PI: Harvey Coppage (Black and Veatch, Kansas City, KS); Co-PI: Timothy J. Ehlinger (Aquatic Ecology, Stream Restoration, and Sustainable Development; AESRSD Lab: UWM, Milwaukee, WI)

- 2006 – 2009 Teaching/Research Assistant, International Research Experience for Student (IRES) The development of indicators of environmental stress and sustainable development. NSF. PI: Timothy J. Ehlinger (AESRSD Lab: UWM, Milwaukee, WI)
- 2005 – 2009 Research Assistant, The Lower Fox River watershed monitoring program. USGS. PI: Timothy J. Ehlinger (Aquatic Ecology, Stream Restoration, and Sustainable Development Lab: UWM, Milwaukee, WI.)
- 2006 – 2008 Research Associate, Developing a decision support strategy/tool for sustainable redevelopment of Gorj County, Romania. USTDA. PI: John Bell (Applied Ecological Services: Brodhead, WI); Co-PI: Timothy J. Ehlinger (Aquatic Ecology, Stream Restoration, and Sustainable Development Lab: UWM, Milwaukee, WI)
- 2005 – 2007 Research Assistant, Developing of risk propagation model for estimating ecological response of streams to anthropogenic watershed stresses and stream modifications. USEPA/NSF/USDA STAR Watershed Project. PI: Vladimir Novotny (Center for Urban Environmental Studies, Northeastern University: Boston, Massachusetts); Co-PI: Timothy J. Ehlinger (Aquatic Ecology, Stream Restoration, & Sustainable Development Lab: UWM)
- 2005 – 2006 Project Assistant, The Black Panther's role in development of Milwaukee's Hunger Task Force and the promise of universal free breakfast for hungry children in Milwaukee. PI: Nik Heynen (Department of Geography, University of Georgia)
- Summ. 2005 GIS Internship, Nonprofit Center of Milwaukee, Inc. Milwaukee, WI

11. UNIVERSITY TEACHING EXPERIENCE

COURSES TAUGHT:

Ryerson University

GEO 110:	The Physical Environment
EUS 102:	Environment & Sustainability
EUS 402:	Research & Statistics
EUS 450:	Responses to Climate Change
EUS 501:	Ecological Processes in the Canadian Landscape
EUS 860:	Measuring Sustainability
ES 8922:	GIS for Environmental Management

Binghamton University, State University of New York

GEOG 120:	Weather & Climate
GEOG 121:	Physical Geography
ENVI/GEOG 239:	Environmental Planning & Policy
GEOG 330/530:	Natural Hazards
GEOG 341/542:	Water Resources Planning & Management
ENVI 415:	Environmental Planning
GEOG 531:	Advanced Geographic Field Methods
CIWS/GEOG 699:	Team Seminar: Flooding & Watershed Management

University of Wisconsin - Milwaukee

GEOG 350:	Conservation of Natural Resources
URBPLAN 740:	Data Analysis Methods I

12. GRADUATE RESEARCH ADVISING & COMMITTEE MEMBERSHIP

Graduate Advisees:

M.A. Charles J. Rapp	Dec. 2012
M.A. Sara L. Zubalsky	May 2013
M.A. Yaron Altman	May 2013
M.A. Guillermo J. Espinosa	Dec. 2013
M.A. Maureen E. Gardner	May 2014
M.A. Taylor Lange	May 2015
M.A. Artur D. Yakubov	May 2015
M.S.A. Kaylin Chin	Aug 2015
M.S.A. Katryna Vergis-Mayo	Sep. 2016
M.S.A. Clarisse Reyna	Sep. 2016
M.Sc. Valerie Bowler	May 2017
M.Sc. Logan Van Vliet	May 2017
M.Sc. Shenley Alkins	May 2018
M.Sc. Victoria Papp	May 2018

Graduate Committee Member For:

Ph.D. Latisha T. Williams	May 2012
M.A. Mustafa Yilmaz	May 2012
M.A. Erika Y. Chin	May 2012
M.A. Amanda Empey	May 2012
M.A. Ryan E. Whitehouse	May 2012
M.A. Dana (Alex) Duke	May 2012
M.A. Michael E. Voorhees	Dec. 2012
M.A. Danielle S. Lamphere	May 2014
M.Sc. Kevin Worthington	May 2015
M.S.A. Dragos Bandur	Aug. 2015
M.S.A. Melissa Dennison	Sep. 2015
M.S.A. Jessica Miki	Sep. 2015
M.S.A. Sasha Ramroop	Feb. 2016
Ph.D. Danielle Mitchell	May 2018

13. AWARDS, HONORS, AND FELLOWSHIPS

- 2010, 2009, 2008 - Mary Jo Read Travel Award, U.W. Milwaukee, Department of Geography
- 2009 - **J. William Fulbright Fellowship**, The United States Department of State, Bureau of Educational and Cultural Affairs (ECA)
- 2009, 2007 - Research Travel Award, U.W. Milwaukee Graduate School
- 2007 - Mary Jo Read Fellowship, U.W. Milwaukee, Department of Geography
- 2007 - President's Choice, Wisconsin Land Information Association (WLIA) Competition
- 2007, 2006 - First Place, U.W. Milwaukee Student GIS Project Competition
- 2006 - Best in Category, Wisconsin Land Information Association (WLIA) Competition
- 2006 - Best Student Poster, Wisconsin Land Information Association (WLIA) Competition
- 2006 - Second Place, U.W. Milwaukee Student GIS Project Competition
- 2004 - Departmental Honors, Geography Department, University of Wisconsin – La Crosse

14. GEOINFORMATICS AND COMPUTER SKILLS

Operating:	MAC OS X, Linux, Windows 2000/Vista/7/8/10
Statistics:	SPSS 12-22, SYSTAT 10-13, JMP 6-12, Spatial Analysis for Macroecology (SAM) 3.x-4.x, GeoDa 0.9.5; 1.67, GWR4.0, FRAGSTATS 3.x-4.x, R
GIS/RS:	GRASS, MapWindow GIS, ArcGIS/Info 8.x, ArcGIS/Info 9.x ArcGIS/Info 10.x, ArcView 3.x, Spatial Analyst, 3D Analyst, Global Mapper 8-11, Geostatistical Analyst, Pathfinder Office, TerraSync, Idrisi Kilimanjaro, Idrisi Taiga, ERDAS, ENVI, Marxan, Lowrance Sonar, QGIS, Google Earth Pro, Wikimapia, NASA World Wind, Google Maps, Bing Maps, Local Live
GPS:	Trimble GeoXT, Garmin, Lowrance
Graphics:	Google SketchUp, Inkscape, CorelDraw 12.0, Visual Studio, Adobe CS-CS6: Photoshop, Illustrator, InDesign, Acrobat, Dreamweaver
Instructional:	Desire2Learn (D2L) Brightspace, Blackboard
Language:	HTML, Visual Basic, ArcObjects, Python

15. PROFESSIONAL MEMBERSHIPS

American Association of Geographers (AAG); Ecological Society of America (ESA); Gamma Theta Upsilon (GTU)

16. MANUSCRIPT REFEREE

Applied Geochemistry (1); Applied Geography (2); Environment, Development, and Sustainability (1); Geoderma (1); Habitat International (1); Journal of Environmental Management (JEMA) (3); Journal of Mountain Science (1); Journal of Sustainable Tourism (1); Landscape and Urban Planning (2); Middle States Geographer (1); Papers of the Applied Geography Conferences (4); Papers in Applied Geography (2); Sustainability (1)

17. UNIVERSITY & PROFESSIONAL SERVICE

2014 – pres. Committee member, SRC Departmental Committee for Geography & Environmental Studies, Department of Geography & Environmental Studies

2014 – pres. Committee member, Masters of Spatial Analysis Executive Committee, Department of Geography & Environmental Studies

2013 – pres. Scientific Representative, Afton Flood Mitigation Committee, Afton, New York

Fall 2016 Session Chair, “Environment & Landscape.” 39th Applied Geography Conference

Spring 2016 Session Organizer & Chair, “Applied Sustainability Science: An Open Paradigm for Applied Geographers.” (Sponsor: Applied Geography, Energy and Environment, Human Dimensions of Global Change) AAG Annual Meeting 2016

2015 – 2016 Technical Committee, Sustainable Built Environment (SBE16 Toronto) Conference

2012 – 2015 Board of Directors, Applied Geography Conferences

2011 – 2014 Center Scientist, Center for Integrated Watershed Studies: Binghamton University, SUNY

2013 – 2014 Binghamton University’s Representative, Great Lakes Research Consortium

Fall 2013 Session Chair, “Water Resources.” Middle States AAG Annual Meeting

Fall 2012 Session Chair, “Physical Geography.” 35th Applied Geography Conference

Spring 2012 Session Organizer, “Sustainability Science and Applied Geography: A New Research Paradigm for Geographers.” (Sponsor: Applied Geography) AAG Annual Meeting 2012

Spring 2012 Session Chair, “Sustainability Science and Applied Geography: A New Research Paradigm for Geographers.” (Sponsor: Applied Geography) AAG Annual Meeting 2012

Fall 2011 Session Chair, “Landscape Studies.” 34th Applied Geography Conference

Spring 2010 Co-organizer, “Ecoweek-Learn.Do.Connect” A youth program designed to bring awareness to local and global environmental problems, Chisinau, Republic of Moldova

Spring 2010 Guest Lecturer, “Sustainable Development in the Littoral Region, Romania.” Faculty of Natural Sciences, University of the Academy of Sciences of Moldova, Chisinau, Republic of Moldova

Fall 2009 Co-organizer, Workshop and presentation on USA graduate school application and student life. Educational Advising Center, Chisinau, Republic of Moldova

Fall 2009 Guest Lecturer, “Affects of Agricultural Land Fragmentation on Aquatic Ecological Integrity.” Faculty of Agronomy, Universitatea Agrara de Stat din Moldova, Chisinau, Moldova

Fall 2009 Co-organizer, Interinstitutional agreement for education and scientific cooperation between the Board of Regents of the University of Wisconsin Systems (on behalf of the University of Wisconsin-Milwaukee), USA and the Academy of Sciences of Moldova, Institute of Ecology and Geography

Spring 2009 Science Fair Judge, Lake Sturgeon Bowl, Great Lakes Water Institute

Fall 2007 Panel Member, UW Milwaukee Undergraduate Research Opportunity Program (UROP)

2004 – 2007 UW Milwaukee Open House, Department of Geography

2005 – 2006 UW Milwaukee Open House, Department of Conservation and Environmental Science

Spring 2004 Science Fair Judge, La Crescent-Hokah Public Schools, La Crescent, MN.

18. REFERENCES

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