

Korine N. Kolivras

Virginia Tech
Department of Geography
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Areas of Specialization

Medical geography and emerging infectious diseases; environmental variability, climate variability, and health; GIS applications.

Education

University of Arizona
Ph.D., Geography, 2004
Minor: Epidemiology
Dissertation Title: *The Environmental and Social Factors of the 2001 Dengue Outbreak in Hawaii*
Advisor: Andrew C. Comrie

University of Arizona
M.A., Geography, 2000
Thesis Title: *Climate Variability and Coccidioidomycosis (Valley Fever)*
Advisor: Andrew C. Comrie

Shippensburg University
B.A. (*magna cum laude*), Geography, 1997
Minors: Spanish and anthropology

Academic Appointments

Associate Professor, Department of Geography, Virginia Polytechnic Institute and State University, August 2011-present

Assistant Professor, Department of Geography, Virginia Polytechnic Institute and State University, August 2004-August 2011

Research

Publications

Peer-Reviewed Journal Articles (*Student collaborator)

2018 Chanda, E., M. Arshad, A. Khaloua, W. Zhang, J. Namboze, P. Uusiku, A.H. Angula, K. Gausi, D. Tiruneh, Q.M. Islam, **K.N. Kolivras**, and U. Haque. An investigation of the *Plasmodium falciparum* malaria epidemic in the Zambezi region of Namibia in 2016. *Transactions of the Royal Society of Tropical Medicine and Hygiene* In press.

- 2017 Krometis, L.-A., J. Gohlke, **K.N. Kolivras**, E. Satterwhite, S.W. Marmagas, and L.C. Marr. 2017. Environmental health disparities in the Central Appalachian region of the United States. *Reviews in Environmental Health* 32(3): 253-266.
- Bandzuh, J.T.*, L. Juran, **K.N. Kolivras**, and A. Wallis. 2017. Local perceptions of measures to control *Aedes* mosquitoes and mosquito-borne diseases in Puntarenas and San José, Costa Rica. *Journal of Latin American Geography* 16(2): 139-162.
- Juran, L., J. Trivedi, and **K.N. Kolivras**. 2017. Considering the 'public' in public health: popular resistance to the Smallpox Eradication Programme in India. *Indian Journal of Medical Ethics* 2(2): 104-111.
- Bailey, K.*, R.D. Oliver, C. Gaffney, and **K.N. Kolivras**. 2017. Negotiating "new" narratives: Rio de Janeiro and the "media geography" of the 2014 World Cup. *Journal of Sport and Social Issues* 41(1): 70-93.
- 2016 Hill, J.L., C.N. Waters*, **K.N. Kolivras**, P.A. Estabrooks, and J.M. Zoellner. 2016. Do the features, amenities, and quality of physical activity resources differ between city and county areas of a large rural region? *Family and Community Health* 39(4): 273-282.
- 2015 Seukep, S.E.*, **K.N. Kolivras**, Y. Hong, J. Li, S.P. Prisley, J.B. Campbell, D.N. Gaines, and R.L. Dymond. 2015. An examination of the demographic and environmental variables correlated with Lyme disease emergence in Virginia. *EcoHealth* 12(4): 634-644.
- 2014 Li, J., **K.N. Kolivras**, Y. Hong, Y. Duan*, S.E. Seukep*, S. Prisley, J. Campbell, D. Gaines. 2014. Spatial and temporal emergence pattern of Lyme disease in Virginia. *American Journal of Tropical Medicine & Hygiene*. 91(6): 1166-1172.
- Khan, M., Bryceson, I., **K. N. Kolivras**, Faruque, F., Rahman, M., and Haque, U. 2014. Natural Disasters and land-use/land-cover change in the southwest coastal areas of Bangladesh. *Regional Environmental Change*. DOI 10.1007/s10113-014-0642-8.
- 2013 Luebbering, C. R.*, **K. N. Kolivras**, and S. Prisley. 2013. Visualizing linguistic diversity through cartography and GIS. *The Professional Geographer*. 65(4): 580-593.
- Luebbering, C. R.*, **K. N. Kolivras**, and S. Prisley. 2013. The lay of the language: Surveying the cartographic characteristics of language maps. *Cartography and Geographic Information Science*. 40(5): 383-400.
- 2012 Hill, J.L., Chau, C.*, Luebbering, C.R.*, **Kolivras, K.N.**, and Zoellner, J. Does availability of physical activity and food outlets differ by race and income? Findings from an enumeration study in a health disparate region. *International Journal of Behavioral Nutrition and Physical Activity*. 9(105).
- Haque, U., Hashizume, M., **Kolivras, K.N.**, Overgaard, H. J., Das, B., and Yamamoto, T. 2012. Reduced death rates from cyclones in Bangladesh – What more needs to be done?. *Bulletin of the World Health Organization* 90: 150-156.
- Kolivras, K.N.**, Luebbering, C.R.*, and Resler, L.M. 2012. Evaluating differences in landscape interpretation between webcam and field-based experiences. *Journal of Geography in Higher Education*. 36(2): 277-291.
- 2011 Haque, U., Magalhães, R.J., Mitra, D., **Kolivras, K.N.**, Schmidt, W.P., Haque, R. and Glass, G.E. 2011. The role of age, ethnicity and environmental factors in modulating malaria risk in Rajasthali, Bangladesh. *Malaria Journal* 10: 367.

- Phoutrides, E., Coulibaly, M.B., George, C.M.* , Sacko, A., Traore, S., Bessof, K., Wiley, M., **Kolivras, K.N.**, Adelman, Z., Traore, M., and Hunsperger, E.A. 2011. Dengue virus seroprevalence among febrile patients in Bamako, Mali: Results of a 2006 surveillance study. *Vector-borne and Zoonotic Diseases* 11(8).
- Smith, E.K.* , Resler, L.M., Vance, E.A., Carstensen, L., and **Kolivras, K.** 2011. Blister rust incidence in treeline whitebark pine, Glacier National Park, U.S.A.: Environmental and topographic influences. *Arctic, Antarctic and Alpine Research* 43(1).
- 2010 **Kolivras, K.N.** 2010. Changes in dengue risk potential in Hawaii, USA due to climate variability and change. *Climate Research* 42(1): 1-11.
- Luebbing, C.R.* and **Kolivras, K.N.** 2010. The precarious position of teaching as a graduate student. *The Geographical Bulletin* 51: 111-118.
- Butterworth, M.K.* , **Kolivras, K.N.**, Grossman, L.S., and Redican, K.J. 2010. Knowledge, perceptions, and practices: Mosquito-borne disease transmission in southwest Virginia, USA. *The Southeastern Geographer* 50(3): 366-385.
- 2009 Resler, L.M. and **Kolivras, K.N.** 2009. A field-based technique for teaching habitat fragmentation and biogeographic edges. *Journal of Geography* 108(4-5): 210-218.
- Kolivras, K.N.** and Scarpaci, J.L. 2009. Between Corporatism and Socialism: Navigating the Waters of International Education in the Dominican Republic and Cuba. *Journal of Geography* 108(3):121-131.
- 2008 Lambert, R.C.* , **Kolivras, K.N.**, Resler, L.M., Brewster, C.C. and Paulson, S.L. 2008. The potential for emergence of Chagas disease in the United States. *Geospatial Health*. 2(2): 227-239.
- 2007 **Kolivras, K.N.** and Comrie, A.C. 2007. Regionalization and variability of precipitation in Hawaii. *Physical Geography*. 28(1): 76-96.
- Knocke, E.* and **Kolivras, K.N.** 2007. The perception of flash flood risk in southwestern Virginia. *Risk Analysis*. 27(1): 155-169.
- 2006 **Kolivras, K.N.** 2006. Mosquito habitat and dengue risk potential in Hawaii: A conceptual framework and GIS application. *The Professional Geographer*. 58(2): 139-154.
- 2004 **Kolivras, K.N.** and Comrie, A.C. 2004: Climate and infectious disease in the southwestern United States. *Progress in Physical Geography*. 28: 387-398.
- 2003 **Kolivras, K.N.** and Comrie, A.C. 2003: Modeling valley fever (coccidioidomycosis) incidence based on climate conditions. *The International Journal of Biometeorology*. 47: 87-101.
- 2001 **Kolivras, K.N.**, Johnson, P., Comrie, A.C. and Yool, S.R. 2001: Environmental variability and coccidioidomycosis (valley fever). *Aerobiologia* 17: 31-42.

Book Chapter

- Scarpaci, J.L., **Kolivras, K.N.**, and Galloway, W. 2011. Engineering Paradise: Making Claim in the Dominican Republic's Last Frontier. In S. Brunn and A. Wood (Eds.), Engineering Earth: The Impact of Megaengineering Projects. Kluwer/Springer. p. 1267-1281.

Other Book Sections, Conference Proceedings, and Reports

Kolivras, K.N. and Comrie, A.C., 2002: Predicting valley fever incidence based on climate conditions. *The Climate Report*. 3, 12-15.

Kolivras, K.N. and Comrie, A.C., 2001: Predicting valley fever incidence. *CLIMAS Update*. 4, 1-4.

Kolivras, K.N. and Comrie, A.C., 2000. Climate Variability and Valley Fever. Proceedings of the 2nd Southwest Weather Symposium, Tucson, AZ.

Kolivras, K.N. and Comrie, A.C., 2000: Climate and Valley Fever. Pages 39-41, in Chapter 8, Human Health, by Southwest Regional Assessment Group, Preparing for a Changing Climate: The Potential Consequences of Climate Variability and Change. Companion Volume to the National Assessment of Climate Change. Institute for the Study of Planet Earth, University of Arizona, 60 pp.

Comrie, A.C. and **K.N. Kolivras**, 1999. Exploring Climate Variability and Valley Fever. Proceedings of the 24th Climate Diagnostics and Prediction Workshop, Tucson, AZ.

Book Review

Kolivras, K.N. 2009: *Caribbean Landscapes: An Interpretive Atlas*. T. Brothers, J. Wilson, and O. Dwyer. In *Journal of Latin American Geography*. 8(2): 244-246.

Grants

Externally-funded Proposals

2018-2020: National Institutes of Health, "Spatiotemporal analysis of adverse birth outcomes in Central Appalachia." Julia Gohlke (PI), Korine Kolivras, Linsey Marr, Leigh-Anne Krometis, and Shyam Ranaganathan (co-PIs). \$425,750.

2017-2018: Powell River Project, "Zooming In On Adverse Birth Outcomes in Coalfield Regions of Central Appalachia." Julia Gohlke (PI), Korine Kolivras, and Leigh-Anne Krometis (co-PIs). \$19,940.

2011-2013: National Science Foundation, "Environmental Variability and Disease Emergence: Spatial Patterns of Lyme Disease Emergence in Virginia." Korine Kolivras (PI), James Campbell, David Gaines, Yili Hong, and Stephen Prisley (co-PIs). \$199,998.

2007-2008: National Council for Geographic Education, "A comparative analysis of virtual and conventional landscape interpretation." Korine Kolivras (PI), Lynn Resler (co-PI). \$3500.

2006-2007: Department of Defense, Foreign Military Studies Office. Subaward: "Collaborative Environmental Management in Caribbean Tourist Regions: Linking Geographic Scales of Analysis and Public-Private Partnerships." Joseph Scarpaci (PI), Korine Kolivras and William Galloway (co-PIs). \$58,000 of \$176,000 for full grant, Jerome Dobson, PI.

2006: Association of American Geographers Research Grant, "Assessing the Potential for Mosquito-borne Disease Outbreaks in Virginia: A Pilot Study." Korine Kolivras (PI). \$1,000.

Internally-funded Proposals

- 2016: Center for Global Change and Center for Society, Culture, and Environment, "How does environmental landscape change shape community and ecological health in the Central Appalachian coalfields?: A pilot study in Tazewell County, Virginia." Leigh-Anne Krometis (PI), David Cline, Julia Gohlke, Korine Kolivras, Susan Marmagas, Linsey Marr, and Emily Satterwhite (co-PIs). \$20,353.
- 2008: Institute for Biomedical and Public Health Sciences, Virginia Tech Seed Grant "Environmental variability and Lyme disease in Virginia." Korine Kolivras (PI), James Campbell, Pang Du, David Gaines, Dana Hawley, Steve Sedlock, and Eric Smith (co-PIs). \$20,000.
- 2006: College of Natural Resources, Virginia Tech Seed Grant "Amphibians as natural agents of mosquito population control." William Hopkins (PI), Korine Kolivras and Sally Paulson (co-PIs). \$9,800.
- 2005: Faculty Grant, Office of International Research, Education, and Development/Office of International Affairs, Virginia Tech: "Assessment of Health-related Exposures in a Squatter Settlement in the Dominican Republic." Kolivras (PI). \$1,000.
- Summer Faculty Fellow Grant, Center for Excellence in Undergraduate Teaching, Virginia Tech: "Restructuring Introduction to Human Geography (GEOG 1004)." Kolivras (PI). \$6,000.

Research Honor

- 2005: J. Warren Nystrom Award Finalist. National competition for best paper from a dissertation in Geography, Association of American Geographers.

Scholarly Presentations and Invited Lectures (*Student collaborator)

- 2018 **Kolivras, K.N.**, Krometis, L.-A., Gohlke, J., Satterwhite, E., Marmagas, S., and Marr, L. Links between land cover change and health inequities in Central Appalachia. Presented at the Annual Meeting of the Association of American Geographers. New Orleans, LA, April 10-14, 2018.
- Bhattarai, S.*, **Kolivras, K.N.**, and Ghimire, K. Understanding the relationship between land use and land cover and malaria incidence in Nepal. Presented at the Annual Meeting of the Association of American Geographers. New Orleans, LA, April 10-14, 2018.
- Stevens, L.*, **Kolivras, K.N.**, Thomas, V., and Campbell, J. Lyme disease risk in the southeastern United States based on estimated land cover projections. Presented at the Annual Meeting of the Association of American Geographers. New Orleans, LA, April 10-14, 2018.
- 2017 Olson, E.*, Oliver, R., Juran, L., and **Kolivras, K.N.**. Rescinding A Bid: Stockholm's Uncertain Relationship With The Olympic Games. Presented at the Annual Meeting of the Southeastern Division of the American Association of Geographers. Starkville, MS, November 19-20, 2017.
- Bandzuh, J.T.*, Juran, L., **Kolivras, K.N.**, and Wallis, A. Local perceptions of measures to control *Aedes* mosquitoes and mosquito-borne diseases in Puntarenas and San José, Costa Rica. Presented at the Annual Meeting of the American Public Health Association. Atlanta, GA, November 4-8, 2017.

Kolivras, K.N., Short, D.* , Shao, Y., and Abbas, K. Diffusion of the 1918-1919 influenza pandemic through World War I military camps. Presented at the Annual Meeting of the American Association of Geographers. Boston, MA, April 5-9, 2017.

Weaver, E.* and **Kolivras, K.N.** Forecasting valley fever: Does weather hold the key to predicting outbreaks? Presented at the Annual Meeting of the American Association of Geographers. Boston, MA, April 5-9, 2017.

Kolivras, K.N. Recent land cover change in Central Appalachia. Presented at the Annual Conference of the Appalachian Studies Association. Blacksburg, VA, March 9-12, 2017.

Telionis, P.A.* , **Kolivras, K.N.**, and Lewis, B. Spatial epidemiology in an Appalachian context. Presented at the Annual Conference of the Appalachian Studies Association. Blacksburg, VA, March 9-12, 2017.

2016 Bandzuh, J.T.* , **Kolivras, K.N.**, and Juran, L. Actions to combat *Aedes* mosquitoes and prevent mosquito-borne diseases in Costa Rica. Presented at the Annual Meeting of the American Association of Geographers. San Francisco, CA, March 29-April 2, 2016.

Brito, F.* , Zoellner, J., **Kolivras, K.N.**, Hill, J., You, W., and Estabrooks, P. Investigating changes in home media environment and child weight status in a childhood obesity intervention. Presented at the Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, Washington DC, March 30-April 2, 2016.

Short, D.* and **Kolivras, K.N.** Diffusion of the 1918-1919 Spanish flu through World War I military camps. Presented at the Annual Meeting of the Southeastern Division of the Association of American Geographers. Columbia, SC, November 20-22, 2016.

2015 **Kolivras, K.N.**, Zhao, Y.* , Li, J., Gaines, D., and Zeng, Y. Climate Variability and Lyme Disease Emergence in Virginia. Presented at the Annual Meeting of the Southeastern Division of the Association of American Geographers. Pensacola, FL, November 22-24, 2015.

Bandzuh, J.T.* , Juran, L., and **Kolivras, K.N.** Policies, programs, and measures in Costa Rica to combat diseases transmitted by the *Aedes* mosquito. Presented at the 64th Annual Meeting of the American Society of Tropical Medicine and Hygiene, Philadelphia, PA, October 25-29, 2015

Kolivras, K.N., Surendrababu, J.* , Prisley, S., Campbell, J., and Zhao, Y.* Potential Future Distributions of Lyme Disease in Virginia. Presented at the Annual Meeting of the Association of American Geographers. Chicago, IL, April 21-25, 2015.

Zhao, Y.* , **Kolivras, K.N.**, Li, J., Gaines, D., and Zeng, Y. The Relationship Between Climate and Lyme Disease in Virginia, United States. Presented at the Annual Meeting of the Association of American Geographers. Chicago, IL, April 21-25, 2015.

2014 **Kolivras, K.N.**, Surendrababu, J.* , Prisley, S., Li, J., and Campbell, J. Modeling Potential Future Lyme Disease Emergence Patterns Based on Projected Land Cover Under Different IPCC Scenarios. Presented at the International Congress on Biometeorology. Cleveland, OH, September 28-October 1, 2014.

Kolivras, K.N., Hong, Y., Li, J., Prisley, S., Campbell, J., Gaines, D., Seukep, S.E* and Dymond, R. Links Between Environmental Variability and Lyme Disease at Multiple

Spatial Scales. Presented at the Annual Meeting of the Association of American Geographers. Tampa, FL, April 8-12, 2014.

- 2013 Duan, Yuanyuan*, Li, J., Hong, Y., **Kolivras, K.N.**, Prisley, S, Campbell, J., and Gaines, D. Statistical Prediction for Virginia Lyme Disease Emergence based on spatial-temporal counts data. Presented at the Annual Meeting of the American Statistical Association. Montreal, Canada, August 3-8, 2013.

Kolivras, K.N., Dymond, S.E.*, Hong, Y., Li, J., Prisley, S, Campbell, J., Gaines, D. and Dymond, R. Environmental variability and the continued emergence of Lyme disease. Presented at the International Medical Geography Symposium. East Lansing, MI, July 8-12, 2013.

Hong, Y., Li, J., Duan, Y. *, **Kolivras, K.N.**, Prisley, S.P., Campbell, J.B., and Gaines, D.N. Using Spatial Poisson Regression to Investigate Virginia Lyme Disease Emergence. Presented at the Annual Meeting of the Western North American Region of the International Biometric Society. Los Angeles, CA, June 16-19, 2013.

Dymond, S.E. *, **Kolivras, K.N.**, Hong, Y., Li, J., Prisley, S, Campbell, J., Gaines, D. and Dymond, R. Lyme disease in Virginia: An exploration of environmental impact on disease spread. Presented at the Annual Meeting of the Association of American Geographers. Los Angeles, CA, April 9-13, 2013.

- 2012 **Kolivras, K.N.**, Hong, Y., Li, J., Prisley, S.P., Campbell, J.B., and Gaines, D.N. Spatial patterns of Lyme disease emergence in Virginia. Presented at the Annual Meeting of the Southeast Division of the Association of American Geographers. Asheville, NC, November 18-20, 2012.

Dymond, S.E. *, **Kolivras, K.N.**, Hong, Y., Li, J., Prisley, S, Campbell, J., Dymond, R. and Gaines, D. The study of human and environmental variables as predictors of the spatial pattern of Lyme disease emergence in Virginia. Presented at the Annual Meeting of the Southeast Division of the Association of American Geographers. Asheville, NC, November 18-20, 2012.

Chau, C. *, Sams, L.K. *, **Kolivras, K.N.**, Hill, J. Contextual overview of physical activity resources in a health disparate region. Presented at the Annual Meeting of the International Society for Behavioral Nutrition and Physical Activity. Austin, TX, May 23-26, 2012.

Chau, C. *, Sams, L.K. *, **Kolivras, K.N.**, Hill, J. Does walking proximity to resources predict physical activity in a health disparate region? Presented at the Annual Meeting of the International Society for Behavioral Nutrition and Physical Activity. Austin, TX, May 23-26, 2012.

- 2011 **Kolivras, K.N.** Geographic dimensions of disease emergence: Human-environment interactions across spatial scales. Presented at the 66th Annual Meeting of the Southeastern Division of the Association of American Geographers. Savannah, GA, November 20-22, 2011.

Sams, L.K. *, **Kolivras, K.N.**, and Hill, J.L. Measuring access to recreational facilities in Danville, Virginia. Presented at the 66th Annual Meeting of the Southeastern Division of the Association of American Geographers. Savannah, GA, November 20-22, 2011.

Chau, C.N. *, Luebbering, C.R. *, **Kolivras, K.N.**, Zoellner, J.M., and Hill, J. L. Using GIS to determine environmental factors related to obesity in a health disparate region. Presented

at the International Society for Behavioral Nutrition and Physical Activity Annual Meeting. Melbourne, Australia, June 15-18, 2011.

Kolivras, K.N., Luebbering, C.R.* , and Resler, L.M. Evaluating differences in landscape interpretation between webcam and field-based experiences. Presented at the 107th Annual Meeting of the Association of American Geographers. Seattle, WA, April 12-16, 2011.

Kimbrell Sams, L.* , **Kolivras, K.N.**, and Luebbering, C.R. Access to healthy living opportunities in Danville, VA. Presented at the 107th Annual Meeting of the Association of American Geographers. Seattle, WA, April 12-16, 2011.

Adams, E.E.* and **Kolivras, K.N.** Operationalizing Scale in Watershed-based Stormwater Management. Presented at the 107th Annual Meeting of the Association of American Geographers. Seattle, WA, April 12-16, 2011.

Muza, M.* , Carstensen, L.W.* , **Kolivras, K.N.**, and Dymond, R.L. Development of a Spatial Decision Support System (SDSS) for Emergency Medical Service (EMS) Facility Siting. Presented at the Virginia Tech GIS and Remote Sensing Research Symposium, April 8, 2011.

2010 **Kolivras, K.N.**, Luebbering, C.R.* , and Resler, L.M. Interpreting landscapes using webcam and field visits. Presented at the National Conference on Geographic Education. Savannah, GA, September 29-October 3, 2010.

Belden, L.K., Benfield, E.F.* , **Kolivras, K.N.** and Luebbering, C.R.* Land use impacts on infection of stream snails by parasitic trematodes. Presented at the 95th Annual Meeting of the Ecological Society of America. Pittsburgh, PA, August 1-6, 2010.

Luebbering, C.R.* , **Kolivras, K.N.**, and Prisley, S. The Lay of the Language: Surveying the cartographic characteristics of language maps. Presented at the 106th Annual Meeting of the Association of American Geographers. Washington, DC, April 14-18, 2010.

Kolivras, K.N., Luebbering, C.R.* , Campbell, J.B., Du, P., Smith, E.P., and Gaines, D.N. Environmental variability and Lyme disease emergence in Virginia. Presented at the 106th Annual Meeting of the Association of American Geographers. Washington, DC, April 14-18, 2010.

2009 Phoutrides, E., Gabbert, L.R., George, C.M.* , Coulibaly, M.B., Sacko, A., Traore, S., Bessof, K., Wiley, M., **Kolivras, K.N.**, Adelman, Z., Traore, M., and Hunsperger, E.A. Dengue virus seroprevalence among febrile patients in Bamako, Mali: Results of a 2006 surveillance study. Presented at the 58th Annual Meeting of the American Society of Tropical Medicine and Hygiene. Washington, DC, November 18-22, 2009.

Kolivras, K.N., Lambert, R.C., Resler, L., Brewster, C., and Paulson, S. The role of climate in the potential emergence of Chagas disease. Presented at the 58th Annual Meeting of the American Society of Tropical Medicine and Hygiene. Washington, DC, November 18-22, 2009.

Kolivras, K.N. Geographic dimensions of disease emergence: Human-environment interactions across spatial scales. Presented as part of the Department of Entomology's Seminar Series, Virginia Tech, October 1, 2009.

Kolivras, K.N., Scarpaci, J., and Galloway, W. Land use change and urban growth in a Dominican shantytown. Presented at the 105th Annual Meeting of the Association of American Geographers. Las Vegas, NV, March 22-27, 2009.

Butterworth, M.* , **Kolivras, K.N.**, and Grossman, L. Knowledge, perceptions and practices: mosquito-borne disease transmission in southwest Virginia. Presented at the 105th Annual Meeting of the Association of American Geographers. Las Vegas, NV, March 22-27, 2009.

White, N.* , **Kolivras, K.N.**, Campbell, J., Carstensen, L., and Gaines, D. Spatial patterns of Lyme disease emergence in Virginia and development of environmentally-based risk models. Presented at the 105th Annual Meeting of the Association of American Geographers. Las Vegas, NV, March 22-27, 2009.

2008 Butterworth, M.* and **Kolivras, K.N.** Knowledge of mosquito-borne disease and personal protective behaviors in Wise and Tazewell counties in Virginia. Presented at the Dean's Forum on Infectious Diseases. Blacksburg, VA, September 29, 2008.

Scarpaci, J.L., **Kolivras, K.N.**, and Galloway, W. Engineering Paradise: Making Claim in the Dominican Republic's Last Tourist Frontier. Presented at the Engineering Earth Conference: The Impacts of Megaengineering Projects. Lexington, KY, July 21-23, 2008.

Kolivras, K.N. Panel Discussant. Theoretical, Methodological, and Pedagogical Frameworks, Environmental Exposures & Disease Outbreaks session. Congress of the Humanities and Social Sciences, Annual Meeting of the Environmental Studies Association of Canada. Vancouver, BC, June 3-6, 2008.

Kolivras, K.N. A multi-scale examination of disease emergence and environmental variability. Presented at the Congress of the Humanities and Social Sciences, Annual Meeting of the Environmental Studies Association of Canada. Vancouver, BC, June 3-6, 2008.

Butterworth, M.* and **Kolivras, K.N.** An application of the Health Belief Model: mosquito-borne disease perceptions and practices in southwest Virginia. Presented at the 104th Annual Meeting of the Association of American Geographers. Boston, MA, April 15-19, 2008.

Burke, A.* , Luebbering, C.* , and **Kolivras, K.N.** Spatial Patterns of West Nile Infection and Mosquito Distributions in Fairfax County, Virginia. Presented at the 104th Annual Meeting of the Association of American Geographers. Boston, MA, April 15-19, 2008.

2007 **Kolivras, K.N.**, Scarpaci, J., and Galloway, W. The incorporation of a land use analysis fieldwork project in a study abroad program. Presented at the 62nd Annual Meeting of the Southeastern Division of the Association of American Geographers. Charleston, SC, November 18-20, 2007.

Kolivras, K.N., Gaines, D., Sedlock, S., Smith, E., Du, P., Campbell, J., and Sforza, P. A strategy for the investigation of environmental characteristics associated with tick *Borrelia burgdorferi* infection in Virginia. Presented at the Dean's Forum on Health, Food, and Nutrition. Blacksburg, VA, November 5, 2007.

Butterworth, M.* and **Kolivras, K.N.** An application of the Health Belief Model: Community attitudes regarding mosquito-borne disease. Presented at the Dean's Forum on Health, Food, and Nutrition. Blacksburg, VA, November 5, 2007.

Cepero, E., **Kolivras, K.N.**, and Scarpaci, J.L. Health Risks from Illegal Garbage Dumps and Abandoned Sites in Old Havana, 2003-2007. Presented at the 17th Annual Meeting of the Association for the Study of the Cuban Economy. Miami, FL, August 2-4, 2007.

Kolivras, K.N. Changes in Dengue Risk Potential in Hawaii based on Climate Variability and Change. Presented at the 103rd Annual Meeting of the Association of American Geographers. San Francisco, CA, April 17-21, 2007.

DallaPiazza, K.L.* and **Kolivras, K.N.** Modeling the Risk of West Nile fever in Virginia Using a GIS Approach. Presented at the 103rd Annual Meeting of the Association of American Geographers. San Francisco, CA, April 17-21, 2007.

Kolivras, K.N. Linking scales in the study of environmental variability and disease emergence. Presented as part of the Department of Biology's Ecology and Evolutionary Biology Seminar Series, Virginia Tech, April 6, 2007.

Kolivras, K.N. Shifts in areas of potential dengue risk in Hawaii based on climate variability and change. Presented at the Deans' Forum on the Environment. Blacksburg, VA, February 26, 2007.

Kolivras, K.N. Exploring environmental variability and mosquito-borne disease using a Geographic Information System (GIS). Presented at the 60th Annual Meeting of the Virginia Mosquito Control Association. Williamsburg, VA, February 7-9, 2007.

Kolivras, K.N. The importance of scale in assessing the relationship between climate variability and disease emergence potential. Presented at the 7th Annual National Conference on Science, Policy, and the Environment: Integrating Environment and Human Health. Washington, D.C., February 1-2, 2007.

2006 **Kolivras, K.N.** and Scarpaci, J.L. Health Concerns and Help-Seeking Behavior in a Dominican Shantytown. Presented at the 102nd Annual Meeting of the Association of American Geographers. Chicago, IL, March 7-11, 2006.

2005 **Kolivras, K.N.** Stigma and mosquito-borne disease: A case study of the 2001-2002 Hawaiian dengue outbreak. Presented at the 60th Annual Meeting of the Southeastern Division of the Association of American Geographers. West Palm Beach, FL, November 20-22, 2005.

Click, R.A.* and **Kolivras, K.N.** Climate variability and the potential spread of Chagas disease in North America. Presented at the 60th Annual Meeting of the Southeastern Division of the Association of American Geographers. West Palm Beach, FL, November 20-22, 2005.

Kolivras, K.N. and Scarpaci, J.L. "Outside the Gates": Health and housing needs in a shantytown enclave in eastern Dominican Republic. Presented at the Conference of Latin Americanist Geographers. Morelia, Michoacán, Mexico, October 26-28, 2005.

Kolivras, K.N. and Scarpaci, J.L. Urban health concerns in a Dominican shantytown. Presented at Outreach NOW -- A Forum on the Scholarship of Outreach. Blacksburg, VA, September 28, 2005.

Kolivras, K.N. Mosquito habitat and dengue risk potential in Hawaii: A conceptual framework and GIS application. Presented at the 101st Annual Meeting of the Association of American Geographers. Denver, CO, April 5-9, 2005.

Kolivras, K.N. GIS applications in the study of health and disease. Presented as part of the Department of Food Science and Technology Seminar Series, Virginia Tech, March 4, 2005.

- 2004 **Kolivras, K.N.** Examination of dengue fever potential in Hawaii using GIS. Presented at the Virginia GIS Conference. Roanoke, VA, November 8-9, 2004.
- Kolivras, K.N.** Spatial and temporal variability of the *Aedes albopictus* mosquito in Hawaii. Presented at the 100th Annual Meeting of the Association of American Geographers. Philadelphia, PA, March 15-19, 2004.
- 2003 **Kolivras, K.N.** Examination of the dengue outbreak in Hawaii using a disease ecology approach. Presented at the 99th Annual Meeting of the Association of American Geographers, New Orleans, LA. March 5-8, 2003.
- 2002 **Kolivras, K.N.** and Comrie, A.C. Exploring links between climate and influenza outbreaks. Presented at the 98th Annual Meeting of the Association of American Geographers, Los Angeles, CA. March 20-23, 2002.
- 2001 **Kolivras, K.N.** and Comrie, A.C. Development of a climate-coccidioidomycosis predictive model. Presented at the 45th Coccidioidomycosis Study Group Meeting, Tucson, AZ. March 31, 2001.
- Kolivras, K.N.** and Comrie, A.C. Climate and health: predicting valley fever incidence from climate variability. Presented at the 97th Annual Meeting of the Association of American Geographers, New York, NY. February 28-March 3, 2001.
- 2000 **Kolivras, K.N.** and Comrie, A.C. Exploring climate variability and valley fever. Presented at the 2nd Southwest Weather Symposium, Tucson, AZ. September 21-22, 2000.
- Kolivras, K.N.** and Comrie, A.C. Climate variability and valley fever. Presented at the 96th Annual Meeting of the Association of American Geographers, Pittsburgh, PA. April 4-8, 2000.
- Kolivras, K.N.** Climate and Health: The relationship between climate and valley fever. Presented at the 4th Annual Western Geography Student Conference, Boulder, CO. February 4-6, 2000.

Teaching

Courses Taught

Health and the Global Environment, graduate seminar (Virginia Tech)
 Medical Geography, 4000/5000 level (Virginia Tech)
 Geographic Theory and Research, 5000 level (Virginia Tech)
 Applied Climatology, 4000/5000 level (Virginia Tech)
 Urban Health and Hazards, 4000/5000 level (Virginia Tech, team-taught)
 Introduction to Human Geography of the Caribbean, 1000 level (Virginia Tech, Punta Cana, DR)
 Introduction to Human Geography, 1000 level (Virginia Tech)
 Introduction to Physical Geography, 100/1000 level (The University of Arizona, Virginia Tech)
 Our Changing Climate, 200 level (The University of Arizona)

Teaching Awards

- 2010: Higher Education Distinguished Teaching Award, National Council for Geographic Education
- 2006: Curriculum Club Outstanding Teacher, Department of Geography, Virginia Tech.

Graduate Student Committees

Committee Chair

In progress:

Megan Stevenson, M.S. Student, Department of Geography
Thesis topic: Lyme disease emergence in northern Virginia (Expected completion: May 2019)

Elizabeth Weaver, Ph.D. Student, Geospatial and Environmental Analysis
Dissertation topic: Valley fever and environmental variability in the western U.S. (Expected completion: May 2019)

P. Alex Telionis, M.S. Student, Department of Geography and Ph.D. Student in GBCB
Thesis topic: Fine-scale analysis of links between Lyme disease and environmental variability (Expected completion: Dec 2017)

2017: Shreejana Bhattarai, M.S. Student, Department of Geography
Thesis title: Understanding the Relationship Between Land Use/Land Cover and Malaria in Nepal

Logan Stevens, M.S. Student, Department of Geography
Thesis title: Future Lyme Disease Risk in the Southeastern United States Based on Projected Land Cover

2016: J.T. Bandzuh, M.S., Department of Geography
Thesis title: Perceptions of Measures to Control *Aedes* Mosquitoes and Mosquito-borne Diseases in Costa Rica

2015: Lauren Freeland, M.S. Student, Department of Geography
Project title: Socio-demographic and Environmental Influences on the Prevalence of Childhood Obesity in North Carolina

2014: Jayashree Surendrababu, M.S., Geography
Thesis title: Modeling the Impact of Projected Land Cover on Lyme Disease Emergence

Ayanda Masilela, M.S., Geography
Thesis title: Discerning Neighborhood Characteristics as Contributing Factors to Infant Mortality in Rural Northern Plains Communities

2013: Liz Dymond, M.S., Geography
Thesis title: Lyme Disease Emergence in Virginia: An Examination of the Demographic and Environmental Variables Correlated to the Spatial Pattern of Lyme Disease Incidence

2012: Lauren Sams, M.S., Geography (co-chair)
Thesis title: Examining Access to Recreational Facilities in Danville, Virginia

2011: Candice Luebbering, Ph.D., Geospatial and Environmental Analysis (co-chair)
Dissertation title: The Cartographic Representation of Language: Understanding language map construction and visualizing language diversity

Erica Adams, M.S., Department of Geography
Thesis title: Operationalizing scale in watershed-based stormwater management

2009: Melinda Butterworth, M.S., Geography
Thesis title: Knowledge, Perceptions, and Practices: Mosquito-borne Disease Transmission in Southwest Virginia

Kristin DallaPiazza Guevara, M.S., Geography
Thesis title: A Global Approach to Disease Prevention: Predicting High Risk Areas for West Nile Infection in the US

2007: Rebecca Click Lambert, M.S., Geography
Thesis title: Chagas Disease in the United States: The emerging threat and the role climate and awareness play in its spread

Committee Member

Current: Cristina Marcillo, Ph.D. Student, Biological Systems Engineering
Dissertation topic: Do community health exposures associated with public drinking water differ between rural and urban American landscapes?

Nate Lawrence, M.S. Student, Geography

2018: Erik Olson, M.S. Student, Geography
Thesis title: Rescinding a Bid: Stockholm's Uncertain Relationship with the Olympic Games

2017: Julia Sherry, M.S. Student, Geography
Thesis title: Perceptions of water services and innovations to improve water services in Tanzania

2016: Fabiana Silva, Ph.D. Student, Human Nutrition, Foods, and Exercise
Dissertation title: Individual, home and neighborhood factors related to a childhood obesity intervention

Patricia Baltasar, M.S., Biomedical and Veterinary Sciences
Thesis title: Shiga Toxin-Producing *Escherichia coli*: A Public Health Challenge in the Pre-Harvest State of the "Farm-to-Table" Continuum

Ray David, Ph.D. Student, Civil and Environmental Engineering
Dissertation title: Impact of meteorological conditions and maturity of perithecia on the release of *Fusarium graminearum* ascospores

2015: Kyle Bailey, M.S., Geography
Thesis title: The Road to Rio: Infrastructure, Image, and New Media

2014: Jose Robles, M.A., Geography (Long Beach State University)
Thesis title: The Association Between Land Cover and West Nile Virus Avian Infections Within Three Ecologically Distinct Urbanized Regions of Orange County, California

2013: Clarice Chau, Ph.D., Human Nutrition, Foods, and Exercise
Dissertation title: Exploring the Food and Physical Activity Environments and Their Influence on Healthy Behaviors

Mary Harman, M.S., Geography
Thesis title: Using Qualitative Geographic Information Systems to Explore Gendered Dimensions for Conservation Agriculture Production Systems in the Philippines: A Mixed Methods Approach

Jennifer Porter, M.S., Geography
Thesis title: Public Pumping: The Nursing Mom's Support Program at Virginia Tech

2011: Matej Muza, M.S., Geography
Thesis title: Development of a Spatial Decision Support System for Emergency Medical Service Facility Siting (Expected completion May 2011)

2010: Heather Lee, M.S., Geography
Thesis title: Food Retail Shops and Food Import Dependency in the Dominican Republic

2009: Tim Moore, Ph.D., Civil and Environmental Engineering
Dissertation title: Application of a Mobile Flux Lab for the Atmospheric Measurement of Emissions (FLAME)

Emily Smith, M.S., Geography
Thesis title: Modeling Blister Rust Incidence in Whitebark Pine at Northern Rocky Mountain Alpine Treelines: A Geospatial Approach

David Murray, M.S., Geography
Thesis title: Spatial Distribution of Exotic Plants in Relation to Physical Environmental Factors with Analysis using GIS

2007: David Arnold, M.S., Geography
Thesis title: Environmental Justice in Virginia's Rural Drinking Water: Analysis of Nitrate Concentrations and Bacteria Prevalence in the Household Wells of Augusta and Louisa County Residents

Monica Dazzini, M.S., Geography
Master's project title: Highway I-95 and Landscape Fragmentation in Northern St. Johns County, Florida: A GIS-based Comparison of Landscapes in 1973, 1990, and 2000

2006: Cory Dannels, M.S., Geography
Master's project title: A Model of Pierce's Disease Susceptibility for Virginia Based on Climate and Land Use

Undergraduate Research Director

Fall 2018 – Andrea Laird “Global perspectives on emerging infectious diseases”

Spring 2018 – Marrison Spaid “Spatial patterns of bacterial meningitis on college campuses”

Fall 2017 – Lauren Buttling “Exploring links between human papilloma virus and state sex education policies”

Spring 2016 – Catherine Steentofte “The continued emergence of valley fever in Kern County, CA”

Fall 2015 – Logan Stevens “Local-scale examination of Lyme disease emergence”

Fall 2014 – Caitlin Lingley “Differences between a naturally-occurring and terrorism-induced anthrax attack”

Phoebe Bredin, Devon Descutner, and Sierra Steffen, “The continued emergence of valley fever in the western U.S.”

Spring 2010 – Michael Van Atta “Mapping Healthy Living in Danville”

Fall 2007 – Ashleigh Burke “Spatio-temporal patterns associated with the emergence of West Nile virus in Fairfax County, Virginia”

Fall 2005 - Kristin DallaPiazza “Geographic contributions to research on obesity”

Professional Service

Intramural

Director of Graduate Studies, Department of Geography, Virginia Tech, August 2014-August 2016, August 2017-present.

Interim Co-Department Head, Department of Geography, Virginia Tech, August 2016-May 2017.

Co-director, Geospatial and Environmental Analysis Ph.D. program, College of Natural Resources and Environment, August 2013-August 2016.

Diversity Committee, College of Natural Resources and Environment, Virginia Tech, August 2012-2015.

Nominations and Elections Committee, College of Natural Resources and Environment, Virginia Tech, August 2011-May 2013 (Chair: 2013).

Graduate Committee, Department of Geography, Virginia Tech, August 2010-present.

Personnel Committee, Department of Geography, Virginia Tech, August 2010-present (Chair: 2013).

Search Committee, Human Ecology of Water, Department of Geography, 2012-2013.

Search Committee, Sustainability Geographer, Department of Geography, 2011-2012.

Interim Director of Graduate Studies, Department of Geography, Virginia Tech, August 2011-January 2012.

Search Committees, Meteorology (Chair) and Geospatial Positions, Department of Geography, 2010-2011.

Master's of Public Health Program Planning Committee, Virginia Tech. Fall 2007-Spring 2010.

Graduate Committee, Department of Geography, Virginia Tech, August 2004-August 2009.

Equipment and Facilities Committee, Department of Geography, Virginia Tech, August 2006-present.

Infectious Disease Advisory Committee for the Institute of Biomedical and Public Health and Safety (IBPHS), Virginia Tech. Fall 2004-present.

Dean's Forum on Infectious Diseases Planning Committee, Virginia Tech. Fall 2007-Fall 2008.

Search Committee, Wildlife Disease Faculty Member, College of Natural Resources. Fall 2005-spring 2007.

Undergraduate Committee, Department of Geography, Virginia Tech, August 2004-August 2008.

Organizer of Department Speaker Series, Department of Geography, Virginia Tech, August 2005-August 2006.

Member of Judging Committee for graduate student award competitions at the 22nd Annual Research Symposium, Graduate Student Assembly. March 2006.

Extramural

Session Chair, "Climate Change and Health." International Medical Geography Symposium. East Lansing, MI, July 8-12, 2013.

Session Chair, "Environment and Ecology." The 66th Annual Meeting of the Southeastern Division of the Association of American Geographers. Savannah, GA, November 20-22, 2011.

Board Member (2010-2012) and Jacques May Thesis Prize Coordinator (2011-2012), Health and Medical Geography Specialty Group, Association of American Geographers.

Reviewer, Jacques May Prize for Best Dissertation in Medical Geography, Health and Medical Geography Specialty Group, Association of American Geographers, March 2009 and March 2011.

Judge, Graduate Student Paper Competition, Graduate Student Affinity Group, Association of American Geographers, April 2008.

Board Member, Medical Geography Specialty Group, Association of American Geographers (2006-2008).

Moderator, World Geography Bowl. The 62nd Annual Meeting of the Southeastern Division of the Association of American Geographers. Charleston, SC, November 18-20, 2007.

Moderator, World Geography Bowl. The 61st Annual Meeting of the Southeastern Division of the Association of American Geographers. Morgantown, WV, November 19-21, 2006.

Moderator, World Geography Bowl. The 60th Annual Meeting of the Southeastern Division of the Association of American Geographers. West Palm Beach, FL, November 20-22, 2005.

Session Chair, "Climate and Health III." The 101st Annual Meeting of the Association of American Geographers, Denver, CO., April 5-9, 2005.

Session Organizer and Chair, "Environmental Health and Disease." The 100th Annual Meeting of the Association of American Geographers, Philadelphia, PA. March 14-19, 2004

Reviewer, *Annals of the Association of American Geographers* (3), *Applied Geography*, *Climate Research*, *Cogent Environmental Science*, *Environmental Health Perspectives*,

Geography Compass (2), Geojournal, Global Change Biology, Health & Place (2), International Journal of Biometeorology, International Journal of Climatology (2), International Journal of Environmental Research and Public Health, International Journal of Health Geographics (3), Journal of Applied Geography, Journal of Geography in Higher Education, Professional Geographer (4), Remote Sensing, Singapore Journal of Tropical Geography (2), Social Science & Medicine, Southeastern Geographer (2), Spatial and Spatio-temporal Epidemiology

Outreach

2005 – 2008 Collaborated with Director of the Punta Cana Ecological Foundation, an NGO based in the eastern Dominican Republic, on research related to health, housing, and land use in the shantytown Verón, D.R. The GIS data collected by myself, collaborators, and students were shared with community leaders, the Punta Cana Ecological Foundation, the VT chapter of Engineers Without Borders, and other organizations working to improve health and sanitation in Verón. In particular, Engineers Without Borders has done water quality tests and are planning the installation of water lines in the community, aided by our GIS data.

Memberships

2005-present: Southeastern Division of the Association of American Geographers (SEDAAG)

1999-present: Association of American Geographers
Health and Medical Geography Specialty Group
Climate Specialty Group
Human Dimensions of Global Change Specialty Group