CURRICULUM VITAE

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EDUCATION

Ph.D., Population Biology, Ecology & Evolution, *Emory University, Atlanta, GA* 2004–2012

B.S., *cum laude* Ecology & Evolutionary Biology, *Tulane University, New Orleans, LA* 1997–2001

RELEVANT PROFESSIONAL EXPERIENCE

Founder, Principal Writer and Analyst, *Bagamian Scientific Consulting, LLC, Gainesville, FL* 2017–present
Assistant Editor, *Journal of Wildlife Diseases, Lawrence, KS* 2014–present
Affiliate Faculty, *Environmental & Global Health, University of Florida, Gainesville, FL* 2018–present
Adjunct Faculty, *Environmental & Global Health, University of Florida, Gainesville, FL* 2017
Postdoctoral Associate, *Emerging Pathogens Institute, University of Florida, Gainesville, FL* 2012–2017
Editorial Assistant, *Journal of Wildlife Diseases, Lawrence, KS* 2011–2014
Research and Grant Writing Consultant, *Various academic clients* 2014
Guest Researcher, *Centers for Disease Control and Prevention, Atlanta, GA* 2012

WRITING AND EDITING ACCOMPLISHMENTS

I have extensive experience in writing and editing grant proposals, many of which have been successfully funded. I have assisted with proposals to governmental agencies (e.g., National Institutes of Health [NIH], National Science Foundation [NSF]), Department of Defense [DOD], Centers for Disease Control and Prevention [CDC], and public health foundations (e.g., Bill & Melinda Gates Foundation and PATH). I have also aided clients with multi-institutional grant proposals, many NIH training grant proposals, and other early career development funding opportunities.

Professionals in medicine and academia have relied on my expertise to get their work published in peer-reviewed journals highly regarded in their fields, such as *The Lancet Global Health*, *Vaccine*, *Nature Communications*, *Cell*, *Journal of Wildlife Diseases*, *Vector-Borne and Zoonotic Diseases*, the *PLOS* journals, and others. I have written and cowritten over 16 peer-reviewed and published journal articles, as well as internal reports for nonprofit organizations, such as PATH and World Bank. Currently, I am an assistant editor for the *Journal of Wildlife Diseases* and a reviewer for 12 journals.

My specialty areas include infectious diseases, host-pathogen relationships, vaccines, oncology, immunotherapy toxicity, precision medicine, and public and global health. In addition to writing grant proposals and journal articles for my medical clients, I also specialize in advisory board summaries and continuing medical education.

I am a member of the American Medical Writers Association, the American Society of Tropical Medicine and Hygiene, and the Wildlife Disease Association.

PUBLICATIONS, SELECTED MANUSCRIPTS IN PREPARATION FOR SUBMISSION, AND REPORTS

Peer-reviewed publications

- Easterday, W.R., Ponciano, J.M., Gomez, J. P., Van Ert, M.N., Hadfield, T.H., **Bagamian, K.H.**, Blackburn, J. K., Stenseth, N. C., and Turner, W.C. 2020. Coalescence modeling of intrainfection *Bacillus anthracis* populations allows estimation of infection parameters in wild populations. *PNAS* 117, 4273–4280.
- **Bagamian, K.H.**, Anderson, J.D., Muhib, F., Cumming, O., Laytner, L.A., Wierzba, T.F. and Rheingans, R. Heterogeneity of ETEC and *Shigella* infections: a subnational approach quantifying risk, mortality, morbidity, and stunting in 11 African countries. *The Lancet Global Health*, 8, 101–112.

- Anderson, J.*, **Bagamian, K.H.***, Muhib, F., Amaya, M.P., Laytner, L.A., Wierzba, T., and Rheingans, R. 2019. The unrecognized consequences of ETEC and *Shigella* non-fatal infections: burden in 79 low-income and lower middle-income countries. *The Lancet Global Health*, 7, 321–30. *Equal contributors.
- Carrera, J.P., **Bagamian K.H.**, Travassos da Rosa, A., Wang, R., Beltran, D., Gundaker, N., Armien, B., Arroyo, G., Sosa, N., Pascale, J.M., Valderrama, A., Tesh, R., Vittor, A., and Weaver, S. 2018. Human and equine infection with alphaviruses and flaviviruses in Panama during 2010: a cross-sectional study of household contacts during an encephalitis outbreak. *American Journal of Tropical Medicine and Hygiene*, 98, 1798–1804.
- Rheingans, R., Anderson, J., **Bagamian, K.H.**, Laytner, L.A., Pecenka, C., Ahmed, M., and Gilani, S.S. 2018. Effects of Geographic and Economic Heterogeneity on the Burden of Rotavirus Diarrhea and the Impact and Cost-Effectiveness of Vaccination in Pakistan. *Vaccine*, 36, 7780–7789.
- Rheingans, R., Anderson, J., **Bagamian, K.H.**, Laytner, L.A., and Pecenka, C. 2018. Effects of Geographic and Economic Heterogeneity on the Burden of Rotavirus Diarrhea and the Impact and Cost-Effectiveness of Vaccination in Lao People's Democratic Republic. *Vaccine*, 36, 7868–7877.
- Kaplan, M., Manore, C., and **Bagamian, K.H.** 2016. Agent-based hantavirus transmission model incorporating host behavior and viral shedding heterogeneities derived from field transmission experiments. *Letters in Biomathematics* 3, 209–228.
- Bezymennyi, M.*, **Bagamian, K.H.***, Barro, A., Skrypnyk, A., Skrypnyk, V., and Blackburn, J.K. 2014. Spatio-temporal patterns of livestock anthrax in Ukraine during the past century (1913–2012). *Applied Geography* 54, 129–138. *Equal contributors.
- **Bagamian, K.H.**, Skrypnyk, A., Rodina, Y., Bezymennyi, M., Nevolko, O., Skrypnyk, V., and Blackburn, J.K. 2014. Serological anthrax surveillance in wild boar *(Sus scrofa)* in Ukraine. *Vector-Borne and Zoonotic Diseases* 14, 618–620.
- Blackburn, J.K., Skrypnyk, A., **Bagamian, K.H.**, Nikolich, M.P., Bezymennyi, M., and Skrypnyk, V. 2014. Anthrax in a backyard domestic dog in Ukraine: a case report. *Vector-Borne and Zoonotic Diseases* 14, 615–617.
- Skrypnyk, V.G., Koziy, R.V., Skrypnyk, A.V., Rublenko, I.O., **Bagamian, K.H.**, Farlow, J., Nikolich, M.P., Mezhenskiy, A.O., Nevolko, O.M., and Blackburn, J.K. 2014. Anthrax in dogs. уча СучаССні наукові розробки 1, 14–17.
- **Bagamian, K.H.**, Alexander, K.A., Hadfield, T.L., and Blackburn, J.K. 2013. Ante- and post-mortem diagnostic techniques for anthrax: rethinking pathogen exposure and the geographic extent of the disease in wildlife. *Journal of Wildlife Disease*s 49, 786–801.
- **Bagamian, K.H.**, Towner, J.T., Mills, J.N., and Kuenzi, A.J. 2013. Increased detection of Sin Nombre hantavirus RNA in antibody-positive deer mice from Montana, USA: evidence of male bias in RNA viremia. *Viruses*: *Special Issue: Hantaviruses* 5, 2320–2328.
- **Bagamian, K.H.**, Towner, J.S., Douglass, R.J., Kuenzi, A.J., Rollin, P.E., Waller, L.A., and Mills, J.N. 2012. Transmission ecology of Sin Nombre hantavirus in North American deermouse populations in outdoor enclosures. *PLoS One* 7, e47731.
- **Bagamian, K.H.**, Douglass, R.J., Alvarado, A., Kuenzi, A.J., Amman, B.A., Waller, L.A., and Mills, J.N. 2012. Population density and seasonality effects on Sin Nombre virus transmission in North American deer mice *(Peromyscus maniculatus)* in outdoor enclosures. *PLoS One* 7, e37254.
- Carver, S., Kuenzi, A.J., **Bagamian, K.H.**, Mills, J.N., Rollin, P.E., Zanto, S.N., and Douglass, R.J. 2011. A temporal dilution effect: hantavirus infection in deer mice in Montana: effect of intermittent presence of voles. *Oecologica* 166, 713–721.
- **Bagamian, K.H.**, Heins, D.C., and Baker, J.A. 2004. Body condition and reproductive capacity of three-spined stickleback infected with the cestode *Schistocephalus solidus*. *Journal of Fish Biology* 64, 1568–1576.

Selected manuscripts in review / in preparation for submission

- Anderson, J.D., Pecenka, C., **Bagamian, K.H.**, and Rheingans, R. Effects of Geographic and Economic Heterogeneity on the Burden of Rotavirus Diarrhea and the Impact and Cost-Effectiveness of Vaccination in Nigeria. *PLoS One, in review*.
- Cumming, O., Anderson, J.D., **Bagamian, K.H.**, Andres, L., Kullman, C., Skoufias, E., Rheingans, R., Ryan, S.J. The distribution of water and sanitation related diarrhoeal disease risk and burden in seven low-income countries—application and validation of a novel risk model. *BMJ Global Health, in prep.*

- Co-infection with multiple respiratory viruses in children from nine Pittsburgh schools during the winter of 2012–2013. Authorship order: TBD, *in prep*.
- Comparison of SMART2 to community-wide influenza and respiratory virus dynamics and influenza-like illness related absences. Authorship order: TBD, *in prep*.

Reports

- **Bagamian, K.H.** and Anderson, J.D. 2019. WASH Poverty Diagnostic; Poverty Risk Model Assessment: Angola. World Bank Report, 48pp. *Report commissioned by the "Poverty Risk Models (PRM) for water, sanitation and health (WASH) project" for World Bank, Washington, D.C.*
- Rheingans, R., **Bagamian, K.H.**, Anderson, J.D., Ryan, S.J., Amratia, P., Amaya, M.P., Bouland, J., Laytner, L.A., Watson, J., and Cumming, O. 2016 WASH Poverty Diagnostic; Poverty Risk Model Assessment: Bangladesh. World Bank Report, 56pp. *Report commissioned by the "Poverty Risk Models (PRM) for water, sanitation and health (WASH) project" for World Bank, Washington, D.C.*
- Rheingans, R., Anderson, J.D., **Bagamian, K.H.**, Ryan, S.J., McNamara, K., Laytner, L.A., Amratia, P., Watson, J., and Cumming, O. 2016 WASH Poverty Diagnostic; Poverty Risk Model Assessment: Democratic Republic of Congo. World Bank Report, 56pp. *Report commissioned by the "Poverty Risk Models (PRM) for water, sanitation and health (WASH) project" for World Bank, Washington, D.C.*
- Rheingans, R., **Bagamian, K.H.**, Anderson, J.D., Ryan, S.J., Laytner, L.A., McNamara, K., Watson, J., and Cumming, O. 2016 WASH Poverty Diagnostic; Poverty Risk Model Assessment: Ethiopia. World Bank Report, 56pp. *Report commissioned by the "Poverty Risk Models (PRM) for water, sanitation and health (WASH) project" for World Bank, Washington, D.C.*
- Rheingans, R., **Bagamian, K.H.**, Anderson, J.D., Ryan, S.J., Laytner, L.A., McNamara, K., Amaya, M.P., Watson, J., and Cumming, O. 2016 WASH Poverty Diagnostic; Poverty Risk Model Assessment: Haiti. World Bank Report, 54pp. *Report commissioned by the "Poverty Risk Models (PRM) for water, sanitation and health (WASH) project" for World Bank, Washington, D.C.*
- Rheingans, R., Anderson, J.D., **Bagamian, K.H.**, Ryan, S.J., Watson, J., Laytner, L.A., and Cumming, O. 2016 WASH Poverty Diagnostic; Poverty Risk Model Assessment: Mozambique. World Bank Report, 62pp. *Report commissioned by the "Poverty Risk Models (PRM) for water, sanitation and health (WASH) project" for World Bank, Washington, D.C.*
- Rheingans, R., **Bagamian, K.H.**, Anderson, J.D., Ryan, S.J., Laytner, L.A., McNamara, K., Watson, J., and Cumming, O. 2016 WASH Poverty Diagnostic; Poverty Risk Model Assessment: Nigeria. World Bank Report, 54pp. *Report commissioned by the "Poverty Risk Models (PRM) for water, sanitation and health (WASH) project" for World Bank, Washington, D.C.*
- Rheingans, R., Anderson, J.D., **Bagamian, K.H.**, Ryan, S.J., Amaya, M.P., Laytner, L.A., McNamara, K., Watson, J., and Cumming, O. 2016 WASH Poverty Diagnostic; Poverty Risk Model Assessment: Tajikistan. World Bank Report, 54pp. *Report commissioned by the "Poverty Risk Models (PRM) for water, sanitation and health (WASH) project" for World Bank, Washington, D.C.*
- Rheingans, R., **Bagamian, K.H.**, Anderson, J.D., Ryan, S.J., Watson, J., Amratia, P., Laytner, L.A., and Cumming, O. 2016 WASH Poverty Diagnostic; Poverty Risk Model Assessment: Pakistan. World Bank Report, 58pp. *Report commissioned by the "Poverty Risk Models (PRM) for water, sanitation and health (WASH) project" for World Bank, Washington, D.C.*
- Ryan, S.J., **Bagamian, K.H.**, Rheingans, R., and Cumming, O. 2016. An exploratory validation of the WASH PRM for the Democratic Republic of Congo, Haiti, and Tajikistan. World Bank Report, 47pp. *Report commissioned by the "Poverty Risk Models (PRM) for water, sanitation and health (WASH) project" for World Bank, Washington, D.C.*

PRESENTATIONS

Selected invited seminars

- ***National Institute of Allergy and Infectious Diseases, Rocky Mountain Laboratories, Hamilton, MT***, October 22, 2014, Bagamian, K.H., Transmission and within-host characteristics of deer mice naturally infected with Sin Nombre hantavirus.
- ***University of Florida, Gainesville, FL***, *Emerging Pathogen Institute Seminar Series*, October 31, 2012, Bagamian, K.H., Transmission ecology of Sin Nombre hantavirus in North American deer mouse *(Peromyscus maniculatus)* populations in outdoor enclosures.

- ***Tulane University, New Orleans, LA***, *Tulane School of Science and Engineering Seminars*, April 20, 2012, Bagamian, K.H., Transmission ecology of Sin Nombre hantavirus in North American deer mouse *(Peromyscus maniculatus)* populations in outdoor enclosures.

Selected conference presentations

- **Bagamian, K.H.**, Anderson, J.D., Laytner, L.A., Cumming, O., and Rheingans, R. **Spatial Heterogeneity and disparities in enteric disease risk (ETEC and *Shigella* infection) in East and Central Africa: implications for new vaccines.** *Vaccines Against Shigella and ETEC (VASE) Conference*, Washington D.C., USA, June 28–30, 2016. *Poster presentation.*
- **Bagamian, K.H.** and Rheingans, R. **Building a high-resolution spatial dataset to assess the heterogeneity of diarrheal prevalence and risk in East Africa.** *Ecology and Evolution of Infectious Diseases Annual Conference*, Athens, GA, USA, June 1–4, 2015. *Poster presentation.*
- **Bagamian, K.H. Transmission ecology of Sin Nombre hantavirus in North American deer mouse populations in outdoor enclosures.** *Wildlife Disease Association International Conference*, Lyon, France, July 22–27, 2012. *Wildlife Disease Association Graduate Research Recognition Award Oral Presentation.*
- **Bagamian, K.H.**, Towner, J.S., Douglass, R.J., Kuenzi, A.J., Rollin, P.E., Waller, L.A., and Mills, J.N. **Transmission ecology of Sin Nombre hantavirus in North American deer mouse populations in outdoor enclosures.** *NIH–NIGMS 4th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE),* Washington D.C., USA, June 25–27, 2012. *Highlighted Poster—Immunobiology and Infectious Diseases Session.*
- **Bagamian, K.H.**, Douglass, R.J., and Mills, J.N. **Field test of Outdoor Enclosure System for Sin Nombre Hantavirus Transmission Research.** *National Center for Zoonotic, Vector-borne, and Enteric Diseases (NCZVED) 2009 Science Summit, CDC*, Atlanta, GA, March 2009. *Poster presentation.*
- **Bagamian, K.H.**, Douglass, R.J., and Mills, J.N. **Hantavirus Transmission in Natural Populations of Deer Mice in Outdoor Enclosures.** *Wildlife Disease Association International Conference*, Estes Park, Colorado, August 12–17, 2007. *Opening session oral presentation.*

GRANTS, SCHOLARSHIPS, AND ACHIEVEMENTS

- National Institute for Mathematical and Biological Synthesis (NIMBioS) Short-Term Visitor, 2013
- Wildlife Disease Association Graduate Research Recognition Award, 2012
- Newcomb College Young Alumna Award, Tulane University, May 18, 2012
- Oak Ridge Institute for Science and Education Research Fellowship, 2009–2010
- NIH–CDC Public Health Dissertation Research Grant, 2008–2009
- NIH Training Grant in Population Biology of Infectious Diseases, 2004–2007
- National Merit Scholar, 1997–2001

COMPUTER SKILLS

Geographic information systems (GIS) and related spatial software, R, Stata, DNASTAR Lasergene Suite, Microsoft Office, Geneious, BEAST

OTHER TRAINING

- Virus Evolution and Molecular Epidemiology (VEME) Workshop: Evolutionary Hypothesis Testing Module, University of Florida, Gainesville, FL, USA, August 25–30, 2013.
- Ecology and Evolution of Infectious Diseases Modeling Workshop on the Ecology of Infectious Disease, University of Georgia, Athens, GA, USA, May 17–20, 2009.

ADDITIONAL LANGUAGES

- Armenian: Fluent (speaking, reading, writing)
- Spanish: Beginner (speaking, reading, writing)