Ian D. Buller
National Cancer Institute
Division of Cancer Epidemiology and Genetics
Occupational and Environmental Epidemiology Branch
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EDUCATION

2013	B.A./M.A., Ecology and Evolutionary Biology, University of Colorado – Boulder
Thesis: *Nationwide distributional determinants for a wildlife and human parasite*
2019	Ph.D., Environmental Health Sciences, Emory University
Dissertation: *On estimating the spatial distribution of enzootic Yersinia pestis in the United States using a wide-ranging sentinel species and spatial statistics with sampling considerations*

PROFESSIONAL EXPERIENCE

2008-2013	Student Assistant (I & II), University of Colorado – Boulder (CU-Boulder), Boulder, CO
2012-2013	Research Assistant, Wedge Communications L.L.C., Golden, CO
2013	Visiting Research Assistant, Instituto Leônidas e Maria Deane – Fiocruz Amazônia, Manaus, Brazil
2019-	Cancer Prevention Fellow, National Institutes of Health (NIH), National Cancer Institute (NCI), Division of Cancer Epidemiology and Genetics (DCEG), Occupational and Environmental Epidemiology Branch

OTHER TRAINING

2012	Graduate Summer Session in Epidemiology, University of Michigan, Ann Arbor, MI
2015	Adult Mosquito Identification Certification, East Georgia State College, Swainsboro, GA
2017	Bayesian and INLA Disease Mapping Curriculum, Medical University of South Carolina, Charleston, SC
2017	Graduate Workshop on Environmental Data Analytics, National Center for Atmospheric Research, Boulder, CO
2019	Principles and Practice of Cancer Prevention and Control course, NCI, Rockville, MD
2019	Molecular Cancer Prevention course, NCI, Rockville, MD
2020	Linux for Biomedical Researchers, Foundation for Advanced Education in the Sciences (FAES) at NIH, Bethesda, MD
2020	Creating Plots, Graphs, and Maps Using R, FAES at NIH, Bethesda, MD

SOFTWARE SKILLS

R, LaTeX, Git, Shell, markdown, SAS, ArcGIS, EndNote, Excel, Word, PowerPoint

COMPETITIVE RESEARCH FUNDING

2014-2019	Graduate Research Fellowship Program, National Science Foundation

2017	Graduate Research Internship Program, National Science Foundation
2019	William G. Coleman Jr., Ph.D., Minority and Health Disparities Research Innovation Award, National Institute on Minority Health and Health Disparities (NIMHD)
2020	DCEG Informatics Tool Challenge, NCI
2020	William G. Coleman Jr., Ph.D., Minority and Health Disparities Research Innovation Award, NIMHD

AWARDS, SCHOLARSHIPS, HONORS

2006	Eagle Scout Rank, Boy Scouts of America
2008	Summer Undergraduate Research Experience, CU-Boulder
2008-2013	Presidential Leadership Class, CU-Boulder
2010	Alvin G. Flanagan/Walker Family Scholarship, CU-Boulder
2011	Barry M. Goldwater Scholarship, Barry M. Goldwater Scholarship and Excellence in Education Foundation
2013	Graduate Research Fellowship Program, National Science Foundation (honorable mention)
2014	Global Health Student Photography Contest, Emory Global Health Institute (honorable mention)
2017	New Thinkers/New Leaders Award, Emory University
2018	Student Section Travel Award, Ecological Society of America Annual Meeting
2018	Young Investigator Award, American Society of Tropical Medicine and Hygiene (first-tier mention)
2020	DCEG Fellows Award for Research Excellence, NCI

ACADEMIC APPOINTMENTS/ MENTORING EXPERIENCE

2011	Undergraduate Teaching Assistant, Department of Ecology and Evolutionary Biology, CU-Boulder
2010-2011	First Year Class Advisor, Presidents Leadership Class, CU-Boulder
2011-2013	Academic Affairs Fellow, Presidents Leadership Class, CU-Boulder
2014-2017	Teaching Assistant, Rollins School of Public Health, Emory University
2017-2018	Laboratory Instructor, College of Arts and Sciences, Emory University
2017-2018	Symposium Research Mentor, Undergraduate Research Program, Emory University

PROFESSIONAL CONTRIBUTIONS AND AFFILIATIONS

Committees, Review Panels, and Editorial Boards

2015-2018	Co-Founder, President, and Treasurer, Public Health Doctoral Students in Environmental Health, Emory University
2016-2018	Team Lead, Emory Climate Analysis and Solutions Team, Emory University
2017	Judge, Science Fair, Fernbank Elementary School, Decatur, GA

2017-2018   Judge, Undergraduate Research Symposium, Emory University

2018-2019   Judge, American Statistical Society DataFest at Emory University, Emory University

2019-   Co-Editor, DCEG Fellows Editorial Board, NCI

2019-   Co-Chair, Method and Training Committee, Fellows Advisory Board, Division of Cancer Prevention (DCP), NCI

Professional Societies and Memberships

2010-2013   American Society of Parasitologists

2011-   Phi Beta Kappa

2011-2018   Ecological Society of America

2013-   Society for Epidemiologic Research

2016-2017   Georgia Public Health Association

2017-2018   American Public Health Association

2018-2020   American Society of Tropical Medicine and Hygiene

2018-2020   American Statistical Association

2019-   American Association for Cancer Research (Affiliate member)

2020-   American Association of Geographers

2020-   National Postdoctoral Association (Affiliate member)

Reviewer for Refereed Journals

Cancer Causes & Control   *International Journal of Environmental Research and Public Health*
Environmental Research   *International Journal of Health Geographics*
Methods in Ecology and Evolution *Journal of the Georgia Public Health Association*
                                   PLoS – Neglected Tropical Diseases

MEETINGS AND PRESENTATIONS (presenting author only)

Oral Presentations

2010   A loaded toad: Parasite communities of juvenile Western Toads (*Anaxyrus boreas*) from California and Oregon. American Society of Parasitologists Annual Meeting, Colorado Springs, CO

2011   Parasite communities of juvenile Western Toads (*Anaxyrus boreas*) from California and Oregon, USA. Rocky Mountain Conference of Parasitologists Annual Meeting, Ogallala, NE

2012   Factors related to the distribution and abundance of the four-host trematode parasite *Alaria* spp. in amphibians in the San Francisco Bay Area. Ecological Society of America Annual Meeting, Portland, OR

2015   A solution to the problem of separation in site-occupancy models. Ecological Society of America Annual Meeting, Baltimore, MD

Poster Presentations

2013   Nationwide distributional determinants of an amphibian and human parasite. Ecological Society of America Annual Meeting, Minneapolis, MN

2017   Spatial distribution of *Yersinia pestis* in wildlife in California while accounting for sampling effort. Ecology and Evolution of Infectious Disease Annual Meeting, Santa Barbara, CA

2017   Assessing public health co-benefits of the City of Atlanta's Climate Action Plan. American Public Health Association Annual Meeting, Atlanta, GA

2018   Spatial distribution of *Yersinia pestis* found in a sentinel species across the United States while accounting for sampling uncertainty. Ecology and Evolution of Infectious Disease Annual Meeting, Glasgow, United Kingdom

2018   Spatial distribution of *Yersinia pestis* found in a sentinel species across the United States while accounting for sampling uncertainty. Ecological Society of America Annual Meeting, New Orleans, LA

2018   Spatial distribution of *Yersinia pestis* found in a sentinel species across the United States while accounting for sampling uncertainty. American Society of Tropical Medicine and Hygiene Annual Meeting, New Orleans, LA

2020   Geographic variation in the oral microbiome of Agricultural Health Study applicators. American Association of Geographers Annual Meeting, Denver, CO (*accepted but COVID-19*)

2020   Geographic variation in the oral microbiome of Agricultural Health Study applicators. Society for Epidemiologic Research Annual Meeting, Boston, MA (*virtual vis-à-vis COVID-19*)

2020   Geographic variation in the oral microbiome of NIH-AARP Diet and Health Study participants. International Society for Environmental Epidemiology (*virtual vis-à-vis COVID-19*)

Invited Presentations

2017   Panelist, Dean's council meeting: Climate and health, Emory University, Rollins School of Public Health, Atlanta, GA

2018   Spatial distribution of *Yersinia pestis* found in *Canis latrans* across North America, United States Department of Agriculture, Animal & Plant Health Inspection Services, Wildlife Disease Program, Fort Collins, CO

2018   Spatial distribution of *Yersinia pestis* found in a sentinel species across the United States while accounting for sampling uncertainty, Lancaster University, Lancaster, United Kingdom

2018   Climate and the plague. The Emory Climate Analysis and Solutions Team, Climate@Emory, Emory University, Atlanta, GA

2019   On examining spatial patterns in principal component space to identify suitable habitat for *Yersinia pestis* transmission in the western United States, DCEG Geographic Analysis Working Group, NCI, Rockville, MD

2019   On examining spatial patterns in principal component space to identify suitable habitat for *Yersinia pestis* transmission in the western United States, Geospatial Interest Group, Federal Committee on Statistical Methods, Washington, DC

2019   The geographic distribution of *Yersinia pestis* in California: a spatial analysis of carnivore-based spatial disease surveillance, Vector-Borne Disease Section, California Department of Public Health, Sacramento, CA

2020   Zoonotic surveillance of plague via point processes in geographic and principal component space, Department of Biostatistics and Bioinformatics Seminar, Emory University, Atlanta, GA

2020   A place for spatial analysis in the Cancer Control Continuum, DCP, NCI, Rockville, MD

2020   Introduction to R. DCP, NCI, Rockville, MD

BIBLIOGRAPHY

Peer-reviewed Publications *denotes co-first authorship

1. Johnson PTJ, **Buller ID**. Parasite competition hidden by correlated coinfection: Using surveys and experiments to understand parasite interactions. *Ecology* 92(3): 535-541; 2011. PMID: 21608460

2. Fisher JA*, Spaur M*, **Buller ID**, Flory AR, Beane-Freeman LE, Hofmann JN, Giangrande M, Jones RR, Ward MH. Spatial heterogeneity in positional errors: a comparison of two residential geocoding efforts in the Agricultural Health Study. *International Journal of Environmental Research and Public Health – In Review.*

3. **Buller ID***, Brown DW*, Myers TA, Jones RR, Machiela MJ. sparrpowR: A flexible R package to estimate statistical power to identify spatial clustering of two groups. *International Journal of Health Geographics – In Review.*

Software Packages

1. **Buller ID**, Brown DW. sparrpowR: Power Analysis to Detect Spatial Relative Clusters. R package version 0.1.3; 2020. https://CRAN.R-project.org/package=sparrpowR

2. **Buller ID**. gateR: Flow/Mass Cytometry Gating via Spatial Kernel Density Estimation. R package version 0.1.2; 2020. https://CRAN.R-project.org/package=gateR

3. **Buller ID**. envi: Environmental Interpolation using Spatial Kernel Density Estimation. R package version 0.1.3; 2020. https://CRAN.R-project.org/package=envi