

MICAH B. HAHN

University of Alaska-Anchorage
Institute for Circumpolar Health Studies
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EDUCATION

Ph.D. Epidemiology / Environment and Resources 2013

University of Wisconsin-Madison, Madison, WI

Center for Sustainability and the Global Environment (SAGE)

- National Science Foundation *Integrative Graduate Education and Research Traineeship* (IGERT) Fellow
- Graduate Certificate on Humans and the Global Environment (CHANGE)
- *Dissertation*: Land Use and Forest Composition Effects on the Ecology of Vector-borne and Zoonotic Disease

MPH, Global Environmental Health 2008

Rollins School of Public Health, Emory University, Atlanta, GA

- *Thesis*: The Livelihood Vulnerability Index: A Pragmatic Approach to Assessing Risks from Climate Variability and Change
- Selected for the *Eugene J. Gangarosa Award for Excellence in International Health*

B.A. Biology

Brandeis University, Waltham, MA

2006

- Dean's List, Cum Laude, UAA All-Academic Recognition for student athletes
- School for International Field Training (SIT) *Health, Development, Society Study Abroad*, Kenya

2005

PROFESSIONAL EXPERIENCE

Assistant Professor of Environmental Health 8/17 - present
Institute for Circumpolar Health Studies, University of Alaska-Anchorage

Climate and Vector-borne Disease Ecologist / Epidemiologist 9/15 - 3/17

Centers for Disease Control and Prevention

Division of Vector-borne Diseases, Fort Collins, CO

Climate and Health Program, Atlanta, GA

- Designed and implemented a study to assess residential versus recreational exposure to ticks and tick-borne diseases in Minnesota in collaboration with the Minnesota Department of Health
- Created an ensemble model of the habitat suitability for *Ixodes scapularis* and *I. pacificus* ticks in the United States
- Coordinated and published the most comprehensive database to date of the distribution of *Aedes aegypti* and *Ae. albopictus* in the United States in support of the Zika virus outbreak and mosquito-borne disease preparedness
- Supported state health departments conducting climate and vector-borne disease research funded under the CDC Climate Ready Cities and States Initiative

Public Health Applications and Climate Science Postdoctoral Research Fellow 8/13 - 9/15

National Center for Atmospheric Research, Boulder, CO

Centers for Disease Control and Prevention, Division of Vector-borne Diseases, Fort Collins, CO

- Utilized climate data for West Nile virus seasonal prediction

Doctoral Research Fellow 8/13 - 5/13

University of Wisconsin-Madison, Madison, WI

- Integrated environmental field data and remote sensing imagery of bat roost habitat with epidemiologic data on Nipah virus cases in Bangladesh to understand the risk factors for virus spillover from bats to humans
- Assessed the connection between forest disturbance and malaria in the Brazilian Amazon using secondary data

- International Center for Diarrheal Disease Research, Bangladesh (icddr,b)** 12/11 - 3/12
- Designed and implemented a study to assess *Pteropus* (fruit bat) roosting sites in case and control villages
 - Trained 30 field team members to conduct a country-wide village-level case control study of Nipah virus including use of forestry tools for roost site assessment, GPS devices, and navigation using GoogleEarth and paper maps
 - Supervised six field teams *in situ* and adjusted the study protocol as necessary
 - Purchased and maintained the necessary field equipment for the study
 - Performed data entry and management of questionnaire, GPS, and digital photo data
 - Raised \$31,000 for the purchase of supplies, for field staff, and to cover personal costs for travel and field work
 - Analyzed the data collected in this study for dissertation research
- Cartographer and Statistical Assistant** 8/09 - 5/10
Survey of Health of Wisconsin, Madison, WI
- Geocoded residential addresses to determine study eligibility and performed GIS analysis to assess the accuracy of address database
 - Ran SAS code to perform household sampling
 - Created maps and study protocol for field team
 - Assisted with survey quality control by performing analysis on recruitment statistics, coding string variables, and editing survey text
- Research Assistant** 7/09 - 08/09
EcoHealth Alliance, New York City, NY
- Performed GIS analysis of fruit bat telemetry data from Bangladesh and Malaysia to characterize seasonal movement
 - Implemented a land cover and home range analysis of the bat habitats using Landsat imagery
- Climate Change Assessment Principal Investigator** 6/07 - 9/07
CARE, Mozambique
- Implemented a 400 household survey in two Mozambican provinces in collaboration with the CARE Poverty-Climate Initiative
 - Developed research design, drafted survey instrument, organized travel and logistics for research team of five Mozambican university students; Trained CARE-Mozambique staff involved in the study
- Water Team Biodiversity and Climate Change/Climate Change Policy Analyst Intern** 09/06 - 05/08
CARE, Atlanta, GA
- Researched policy and program paths for CARE-USA and CARE-Water Team to address the link between climate change and water availability in communities with whom we were working
 - Coordinated an international development collaboration between conservation organizations (WWF and The Nature Conservancy) and water organizations (CARE and Water for People)
 - Developed a GIS database of CARE projects/biodiversity hotspots to facilitate efforts between partner organizations
- Undergraduate Independent Research Investigator** 01/05 - 05/05
School for International Training, Kenya
- Designed and implemented a qualitative research study on the interface between traditional medicine and biomedical practice in the Giriama people of coastal Kenya
 - Hired a Kenyan translator to help carry out interviews with traditional healers and interviewed biomedical doctors, governmental officials, and representatives of the judicial system
 - Assessed police records to extract information about arrests related to *utsai*, or “witchcraft”

HONORS

- Gulf Research Program Early-Career Research Fellowship* 2021
National Academies of Sciences
 Recognizes early-career researchers for past performance and their potential for substantial contributions to enhancing the protection of environmental and/or human health through support during the pre-tenure phase of their career.
- Delta Omega Public Health Honor Society* 2019

<i>Exceptional Early Career Contribution to the Field of EcoHealth</i>	2014
International Association for Ecology and Health	
Recognizes a promising researcher who has demonstrated the potential to advance the field of EcoHealth.	
<i>Award for Best Student Presentation</i>	2013
U.S. Regional Association of the International Association for Landscape Ecology	
<i>Graduate Student Peer Mentor Award</i>	2013
Multicultural Graduate Network and the Graduate School, University of Wisconsin-Madison	
Award to recognize a graduate student who takes the time to help others succeed in graduate school.	
<i>Eugene J. Gangarosa Award for Excellence in International Health</i>	2008
Rollins School of Public Health, Emory University	
Named after the former Director of Public Health at Emory, this award is presented to the graduating student who has demonstrated a creative approach to solving public health problems and who shows promise for outstanding service in the international arena.	

RESEARCH INTERESTS

Epidemiology at the intersection of human, wildlife, and ecosystem health. Health impacts of climate change. Working with communities to develop locally-relevant and culturally-appropriate adaptation strategies. OneHealth, emerging infectious diseases, zoonotic diseases, disease ecology, geospatial analysis and remote sensing. Food security and local food production as a resilience strategy for adaptation to climate change. Health co-benefits of climate mitigation.

FUNDING

AWARDS GRANTED

- National Science Foundation, University of Alaska-Fairbanks (EPSCoR), 2020. *Assessing the role of preparedness, social supports, and trust in leadership in reducing mental health problems associated with a recent Alaskan wildfire*. PI: Hahn. \$9,072.
- National Science Foundation, RAPID, 2020. *COVID-19 in remote Alaska Native communities: Identifying strengths, knowledge, and behaviors to protect community health*. PI: Eichelberger, Co-PIs: Hahn, Fried. \$198,549.
- Pacific Southwest Center of Excellence in Vector-Borne Diseases, 2020. *Understanding the role of veterinary personnel and pet travel in regards to tick and tick-borne disease in Alaska*. PI: Hahn, Trainees: Disler, Schlat. \$24,288.
- National Science Foundation, Navigating the New Arctic, 2020. Foundations for improving resilience in the energy sector against wildfire in Alaskan lands (FIREWALL). PI: Kapourchali, Co-PIs: Berman, Hahn. \$125,000.
- Municipality of Anchorage, 2020. *Outbreak modeling and non-pharmaceutical interventions to support the COVID-19 response*. PI: Hennessy, Co-I: Hahn and Division of Population Health Sciences faculty. \$176,053.
- State of Alaska Division of Forestry, 2020. *3rd Avenue Community Orchard*. PI: Hodges Snyder, Co-PI: Hahn. \$11,600.
- UAA Center for Community Engagement and Learning, 2020. *Development of a Food Security Index for the Municipality of Anchorage*. PI: Hahn. \$1,900.
- Bloomberg American Health Initiative, 2020. *Understanding and supporting mental health and well-being in the context of intensifying wildfires in Alaska*. PI: Augustinavicius, Co-I: Hahn. \$20,000.
- National Science Foundation, University of Alaska-Fairbanks (EPSCoR), 2019. *Modeling the association between cardiorespiratory hospitalizations and particulate matter from wildfire smoke in Anchorage and Fairbanks to support adaptation and resilience planning*. PI: Hahn, Co-I: Magzamen. \$25,000.
- UAA Center for Community Engagement and Learning, 2019. *Development of an Urban Alaska Climate Action Planning Toolkit*. PI: Hahn. \$1,500.
- National Institutes of Health, UAA INBRE, 2019. *Understanding the risk of ticks and tick-borne pathogens in Alaska*. PI: Hahn, Co-Is: Schuette, Osnas. \$100,000.
- National Institutes of Health, UAA INBRE, 2019. *Soil testing at the 3rd Avenue urban farm site in Anchorage*. PI: Hodges-Snyder, Co-PI: Hahn. \$44,536.

- University of Alaska Foundation, 2018. *Development of the Anchorage Climate Action Plan through a campus-community partnership*. PI: Hahn, CO-Is: Roderick, Donovan. \$80,000.
- Environmental Protection Agency, Local Food, Local Places, 2018. *3rd Avenue Downtown Farm Technical Assistance Grant*. PI: Hodges-Snyder, Co-I: Hahn.
- National Institutes of Health, UAA INBRE, 2018. *Understanding the risk of ticks and tick-borne pathogens in Alaska*. PI: Hahn, Co-I: Witmer. \$124,930.
- UAA Center for Community Engagement and Learning, Resilient Communities Initiative, 2018. *Listen to the People! Community engagement for resilient city planning*. PI: Hahn, Co-I: Roderick. \$6,500.
- Mat-su Health Foundation, 2018. *Onward and Upward program evaluation*. PI: Hahn. \$132,954.
- Robert Wood Johnson Foundation, Urban Institute, 2018. *Flood hazard risk and quality of life*. PI: Hahn. \$90,732.
- National Indian Health Board, 2018. *Promoting adaptive capacity with a geo-location device check-out program in Wainwright, Alaska*. PI: Hahn. \$31,500
- UAA Center for Community Engagement and Learning, 2018. *Evaluating the impact of Alaska Seeds of Change activities*. PI: Hahn. \$1,500.
- National Science Foundation (NSF) Fellowship, 2008—2012. *Certificate on Humans and the Global Environment – Integrative Graduate Education and Research Traineeship (CHANGE-IGERT)*. PI: J. Patz, Role: Graduate student. University of Wisconsin – Madison. \$135,695.
- National Science Foundation, 2008—2013. *IGERT Mini-Grant Funds*. PI: J. Patz, Role: Graduate student. \$23,520
- National Science Foundation and EcoHealth Alliance, 2011. *Research Fellow Grant*. Role: Graduate student. \$13,600.

PUBLICATIONS

JOURNAL ARTICLES

- Witmer F and **Hahn MB** (In prep). Current and future potential habitat of *Ixodes pacificus* in Alaska.
- Hahn MB**, Kuiper G, O'Dell K, Fischer EV, and S Magzamen (In review at *GeoHealth*). Wildfire smoke is associated with an increased risk of cardiorespiratory emergency room visits in Alaska.
- Hahn MB** (In review). Emergence of ticks as a public health concern, Alaska – 2010—2019. *Alaska Department of Health and Social Services, Epidemiological Bulletin*.
- Butke D, Wild M, Monello R, **Hahn M**, and K Jackson (In review at *EcoHealth*). Managing wildlife disease in the National Parks under the climate crisis: Into uncharted temperatures and policy.
- Hahn MB**, Feirer S, Monaghan AJ, Lane RS, Eisen RJ, Padgett KA, and M Kelly (In review at *Ticks and Tick-borne Diseases*). Modeling future climate suitability for the western blacklegged tick, *Ixodes pacificus*, in California with an emphasis on land access and ownership.
- Hahn MB**, Van Wyck R, Lessard L, and R Fried (2021). Compounding effects of social vulnerability and recurring natural disasters on mental and physical health. *Disaster Medicine and Public Health Preparedness*. Online: 1-9.
- Aggarwal S, Eichelberger L, Dev S, Howe T, Barnes DL, Bortz E, Briggs BR, Cochran P, Doston A, Drown DM, **Hahn MB**, and K Mattos (2021). Implications of inadequate water and sanitation infrastructure for community spread of COVID-19 in remote Alaskan communities. *Science of the Total Environment*. 776: 145842.
- Bhatt US, Lader RT, Bieniek PA, Walsh JE, Thoman R, Merman M, Borries-Strigle C, Bullock K, Christ J, **Hahn M**, Hendricks A, Jain P, Jandt R, Little J, Moore C, Rupp TS, Schmidt J, Stevens E Strader H, York A, and R Ziel (2021). Emerging anthropogenic influences on the Southcentral Alaska temperature and precipitation extremes and related fires in 2019. *Land*. 10 (1): 82.
- Hahn MB**, Van Wyck R, Seater, M, and A Marvin (2020). Evaluating the impact of an experiential learning curriculum on youth developmental assets and social relations within alternative high schools. *Journal of Adventure Education and Outdoor Learning*. 1-15.

- Hahn MB**, Kemp C, Ward-Waller C, Donovan S, Schmidt JI, and S Bauer (2020). Collaborative climate mitigation and adaptation planning with university, community, and municipal partners: A case study in Anchorage Alaska. *Local Environment*. 25(9): 648-665.
- Hahn MB**, Disler G, Durden L, Coburn S, Witmer F, George W, Beckmen K, and R Gerlach. (2020). Establishing a baseline for tick surveillance in Alaska: Tick collection records from 1909-2019. *Ticks and Tick-borne Disease*. 11(5): 101495.
- Eisen RJ, Feirer S, Monaghan A, Padgett K, **Hahn MB**, Monaghan A, Kramer VL, Lane RS, and M Kelly (2018). Modeling climate suitability of the western blacklegged tick (*Ixodes pacificus*) in California. *Journal of Medical Entomology*. 55(5): 1133-1142.
- Hahn MB**, Bjork JK, Neitzel DF, Dorr FM, Whitemarsh T, Boegler KA, Graham CB, Johnson TL, Maes SE, and RJ Eisen (2018). Evaluating acarological risk for exposure to *Ixodes scapularis* and *Ixodes scapularis*-borne pathogens in recreational and residential settings in Washington County, Minnesota. *Ticks and Tick-borne Diseases*. 9(2): 340-348.
- Johnson TL, Haque U, Monaghan AJ, Eisen L, **Hahn MB**, Hayden MH, Savage HM, McAllister J, Mutebi JP, and RJ Eisen (2017). Modeling the environmental suitability for *Aedes (Stegomyia) aegypti* and *Aedes (Stegomyia) albopictus* (Diptera: Culicidae) in the contiguous United States. *Journal of Medical Entomology*. 54(6):1605-1614.
- Hahn MB**, Eisen L, McAllister J, Savage HM, Mutebi JP, and RJ Eisen (2017). Updated reported distribution of *Aedes (Stegomyia) aegypti* and *Aedes (Stegomyia) albopictus* in the United States, 1995-2016. *Journal of Medical Entomology*. 54(5): 1420-1424.
- Hahn MB**, Jarnevich CS, Monaghan AJ, RJ Eisen (2017). Response: The geographic distribution of *Ixodes scapularis* (Acari: Ixodidae) revisited: The importance of assumptions about error balance. *Journal of Medical Entomology*. 54(5): 1104-1106.
- Kilpatrick AM, Salkeld DJ, Titcomb G, and **M Hahn** (2017). Conservation of biodiversity as a strategy for improving human health and well-being. *Phil. Trans. R. Soc. B*. 372: 20160131.
- Hahn MB**, Eisen RJ, Eisen L, Boegler, KA, Moore CG, McAllister J, Savage HM, and JP Mutebi (2016). Reported distribution of *Aedes (Stegomyia) aegypti* and *Aedes (Stegomyia) albopictus* in the United States, 1995-2016. *Journal of Medical Entomology*. 53(5): 1169-1175.
- Hahn MB**, Jarnevich CS, Monaghan AJ, and RJ Eisen (2016). Modeling the geographic distribution of *Ixodes scapularis* and *Ixodes pacificus* (Acari: Ixodidae) in the contiguous United States. *Journal of Medical Entomology*. 53(5): 1176-1191.
- Zemtsova GE, Apanaskevich DA, Reeves WK, **Hahn M**, Snellgrove A, and ML Levin (2016). Phylogeography of *Rhipicephalus sanguineus* sensu lato and its relationship with climatic factors. *Exp. Appl. Acarol*. 69(2): 191-203.
- Coutts C and **Hahn M** (2015). Green Infrastructure, Ecosystem Services, and Human Health. *Int. J. Environ. Res. Public Health*. 12: 9768-9798.
- Hahn MB**, Monaghan AJ, Hayden MH, Eisen RJ, Delorey MJ, Lindsey NP, Nasci RS, and M Fischer (2015). Meteorological conditions associated with increased incidence of West Nile virus disease in the United States, 2004-2012. *AJTMH*. 92(5): 1013-1022.
- Hahn MB**, Olson S, Vittor A, Barcellos C, Patz J, and W Pan (2014). Conservation efforts and malaria in the Brazilian Amazon. *AJTMH*. 90(4): 591-594.
- Hahn MB**, Epstein JH, Gurley ES, Islam MS, Luby SP, Daszak P, and JA Patz (2014). Roosting behavior and habitat selection of *Pteropus giganteus* reveals potential links to Nipah virus epidemiology. *Journal of Animal Ecology*. 51: 367-387
- Hahn MB**, Gurley ES, Epstein JH, Islam MS, Patz JA, Daszak P, and S Luby (2014). The role of landscape composition and configuration on *Pteropus giganteus* roosting ecology and Nipah virus spillover risk in Bangladesh. *AJTMH*. 90(2): 247-255.
- Hahn MB**, Gangnon RE, Barcellos C, Asner GP, and JA Patz (2014). Influence of deforestation, logging, and fire on malaria in Brazilian Amazon. *PLoS ONE*. 9(1): e85725.
- Hahn MB**, Barrett MA, and P Horwitz (2012). Student Dialogues: EcoHealth Offers a Home to the Interdisciplinary Student. *EcoHealth*. 9(3): 241-242.
- Hahn M**, A Reiderer, and S Foster (2009). The Livelihood Vulnerability Index: A pragmatic approach to assessing risks from climate variability and change. *Global Environmental Change*. 19: 74-88.

BOOK CHAPTERS

- Hahn MB** (In review, publication Fall 2020). Climate change and health in Alaska: How do things compare with the Lower 48? In *Global Change and Human Health: From science to practice*, 2nd edition; eds. Jay Lemery, Kim Knowlton, and Cecilia Sorenson. Jossey-Bass: San Francisco, CA.
- Hahn MB** (2016). Infectious disease ecology. In *Green Infrastructure and Public Health*. Ed. Christopher Coutts. Routledge, UK.
- Patz JA and **Hahn MB** (2013). Climate Change and Health: A One Health perspective. In *Current Topics in Microbiology and Immunology: One Health*. Vol. 365. Eds Mackenzie JS, Daszak P, and JA Rict. Online 18 November 2012.

OTHER ACADEMIC PUBLICATIONS

- Hennessy T, Lessard L, Fried R, Bulkow L, Garcia GM, Miller J, Snyder L, Bogue K, Nix N, **Hahn M**, and J Meyer (2020). Maintaining COVID-19 suppression measures is hard. But Alaskans Must. *Anchorage Daily News, Opinions*. March 29.
- Hahn MB** and A Droghini (2020). Tick monitoring in Alaska. Alaska Small Mammal Working Group. *2020 Newsletter*.
- Hahn MB** and W George (2019). Tracking ticks in Alaska: Understanding how an invasive species may impact the health of humans and animals in the Arctic. *Arctic Research Consortium of the United States, Witness the Arctic*. 31 July Issue.
- Hahn MB** (2015). A OneHealth Perspective on Climate Change. In American Society for Microbiology's *Cultures Magazine*. 2(4): 30-35.
- Hahn MB** (2013). Land use and the roosting ecology of *Pteropus giganteus* reveals links to Nipah virus epidemiology in Bangladesh. *OneHealth Newsletter*. 6(3): 4-7.

TECHNICAL REPORTS

- Hahn M**, Hodges-Snyder E, and L Lessard (2020). Regional comparisons of non-pharmaceutical interventions for COVID-19. *Prepared for the Municipality of Anchorage*.
- UAA Division of Population Health Sciences (2020). Editors: **Hahn M**, Fried R, and L Lessard. Assessment of two COVID-19 models to guide community intervention policies in Anchorage and Alaska. *Prepared for the Municipality of Anchorage and the State of Alaska*.
- Hahn, MB**, Kilcoyne S, Kemp C (Eds). (2019). Anchorage Climate Action Plan. *Municipality of Anchorage*. Available: <http://www.muni.org/climateactionplan>
- Wong TJ, Schramm PJ, Foster E, **Hahn MB**, Schafrick NH, Conlon KC, and L Cameron (2017). The effectiveness and implementation of 4-poster deer self-treatment devices for tick-borne disease prevention. *Climate and Health Technical Report Series*. Centers for Disease Control and Prevention, Climate and Health Program.
- Beard CB, Eisen RJ, Barker CM, Garofalo JF, **Hahn M**, Hayden M, Monaghan AJ, Ogden NH, and PJ Schramm (2016). Chapter 5: Vector-Borne Diseases. In *Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Crimmins A, Balbus J, Gamble J, Beard CB, Bell JE, Dodgen D, Eisen RJ, Fann N, Hawkins MD, Herring SC, Jantarasami L, Mills DM, Saha S, Sarofim MC, Trtanj J, and L Ziska, Eds. Available: <https://health2016.globalchange.gov/>
- Grabow ML, **Hahn M**, and M Whited (2010). Valuing Bicycling's Economic and Health Impacts in Wisconsin. *White Paper commissioned by Wisconsin Representative Spencer Black*.

TEACHING AND MENTORING

UNIVERSITY TEACHING

Primary Instructor, University of Alaska-Anchorage

08/19 - present

- Introduction to Epidemiology, Fall 2021.
- Climate Change and Health, Fall 2019.
- Applied Environmental Health: Planning for Climate Action in Anchorage, Fall 2018

Guest Lecturer, University of Alaska-Anchorage

08/19 - present

- Climate Change, Spring 2020, Spring 2021 Alaska Pacific University, Erin Larson
- Stellar Secondary, Fall 2019, Becky Gerrick
- GIS and Health, Spring 2019, Colorado State University, Sheryl Magzamen
- Climate Change, Spring 2019, Alaska Pacific University, James Temte

Engaging in Environmental Public Health in Fort Collins. Fall 2016.

Colorado State University

Impact of Global Environmental Change on Emerging Infectious Diseases. Fall 2014, 2015.

Colorado State University

SAS Programming Lab. Spring 2014.

Colorado State University

Strategies in Global Health. Graduate Student Instructor. Spring 2008.

Rollins School of Public Health, Emory University

Global Perspectives in Environmental Health. Graduate Student Instructor. Fall 2007.

Rollins School of Public Health, Emory University

Guest Lecturer, Colorado State University

01/14 - 03/17

- GIS and Public Health, Sheryl Magzamen
- Ecology of Infectious Diseases, Dan Salkeld

Guest Lecturer, University of Wisconsin

04/11 - 05/13

- Environmental Health Principles for Public Health Practice, Lori Severtson
- Community-Scale Composting Service Learning Capstone, Nina Chaopricha
- Health Impact Assessment of Global Environmental Change, Jonathan Patz
- Global Meals Seminar, Jack Kloppenberg and Anna Zeide
- Exploring Biology, Amber Smith
- Forum on the Environment, Teri Balsler

GRADUATE STUDENTS AND INTERNSHIP MENTEES

Thesis / Final Project Committees

- Caitlin Kollander, Biology, University of Alaska-Anchorage. *Virus ecology in Alaskan bats*. In progress, MS in Biology expected May 2022.
- Iva Karoly-Lister, Arctic and Northern Studies, University of Alaska-Fairbanks. *Mapping food security in Anchorage, Alaska*. In progress, MS in Arctic and Northern Studies expected May 2021.
- Chelsea Ward-Waller, Department of Health Sciences, University of Alaska-Anchorage. *Assessment of Active Transportation Use, Public Transit Use, and Public Health Messaging in Anchorage, Alaska*. In progress, MPH expected Dec. 2021.
- Ashley Schroeder, Department of Health Sciences, University of Alaska-Anchorage. *Urban agriculture soil contaminant testing and analysis*. In progress, MPH expected May 2021.
- Gale Disler, Department of Health Sciences, University of Alaska-Anchorage. *Understanding the role of veterinary personnel in regards to ticks and tick-borne disease in Alaska*. In progress, MPH expected May 2021.
- Le Thi Tinh Chi, Flinders University. *Livelihood vulnerability assessment to climate change in a Vietnam coastal province*. MS in Environmental Management. December 2018.
- Chelsea Barnett, Department of Environmental and Radiological Sciences, Colorado State University. *Geospatial analyses of childhood malaria following repeated village-wide Ivermectin administrations*. MS in Environmental Health / Epidemiology. August 2017.

Practicum Advisor

- Ernesto Rodriguez, Rollins School of Public Health, Emory University. *Landscape report of harmful algal blooms in Alaska*. MPH. May 2020.

SERVICE

PROFESSIONAL

Manuscript Review for: *EcoHealth, Global Environmental Change, American Journal of Tropical Medicine and Hygiene, Population and Environment, BMC Veterinary Research, Transactions of the Royal Society of Tropical Medicine and Hygiene, Journal of Medical Entomology, Journal of Biometeorology, International Journal of Circumpolar Health, Annals of the National Academy of Sciences, Nature Ecology and Evolution, Vector-borne and Zoonotic Diseases, International Journal of Environmental Research and Public Health, Ticks and Tick-borne Diseases, AAAS Science Advances*

Proposal Review for: Delaware Sea Grant (2019), Alaska INBRE graduate student research program (2019, 2020)

Session Organizing for professional meetings:

International Association for Ecology and Health, 2012 (Kunming, China) and 2014 (Montreal, Canada)
International Advisory Board for the annual conferences

Membership and Committee Service:

National Science Foundation

NEON Tick Sampling Technical Working Group 11/19 - present

Municipality of Anchorage

Resilience Leadership Team 05/19 - present

Alaska Food Policy Council

Downtown Anchorage Farm Committee 05/18 - present

International Union for Circumpolar Health

International Circumpolar Surveillance Climate Sensitive Infectious Diseases workgroup 04/17 - present

American Society of Circumpolar Health

04/17 - present

Alaska Public Health Association

12/17 - present

Expanding Your Horizons

Committee for Northern Colorado science conference for middle-school girls 08/15 - 08/16

Climate Voices Science Communication Network

University Corp. for Atmospheric Research (UCAR) 01/14 - 03/17

Conservation Development Global Challenges Research Team

Colorado State University 09/13 - 03/17

American Society of Tropical Medicine and Hygiene

01/14 - 08/15

U.S. Regional Association of the International Association for Landscape Ecology

01/13 - 08/15

Earth Science Women's Network

09/08 - 04/13

International Association for Ecology and Health

Executive Board Member, Development Committee, Membership Committee, Events and Awards Committee 09/08 - 08/13

American Public Health Association

Environment Section, Climate Change Committee 09/06 - 09/09

UNIVERSITY

Chair, Chancellor's Faculty Working Group on Climate Change 08/19 - present

UAA representative, Alaska OneHealth Working Group 08/17 - present

Faculty Advisory Committee, Center for Community Engaged Learning 01/18 - 05/20

DEPARTMENT

Grant Hub Faculty Advisory Committee 08/18 - present

CAAS Director Search Committee 2018

Population Health Director Search Committee 2018

ICHS Business Manager Search Committee	2018
ICHS Faculty Search Committee	2019

LEADERSHIP

Chair, Vector-borne Diseases Community of Practice 02/15 - 03/17
CDC Climate-Ready Cities and States Initiative

- Serve as the facilitator of the group of state health department epidemiologists conducting research on climate and vector-borne diseases related to the CDC Climate-Ready Cities and States Initiative
- Support state health agency research on climate and vector-borne diseases through consultation on study design, modeling, and data sources

Executive Board Member 05/09 - 05/13

International Association of Ecology and Health

- Served as the liaison between the Student Section and the Association by attending international conference calls, submitting reports of student activities, and sitting on subcommittees (e.g. for selection of new international Executive board members, strategic development)
- Facilitated the Student Section by maintaining contact with international student coordinators and facilitating student conference calls
- Assisted with planning the 2010 (London) and 2012 (Kunming, China) conferences by coordinating student panels, workshops, and presentation awards, and web streaming activities
- Sponsored a new, permanent student editorial section in the *EcoHealth* journal to promote student involvement

SCIENCE COMMUNICATION AND MEDIA

VIDEO

“Researchers want Alaskans to be on the lookout for ticks.” *KTV4*. 26 May 2020. Available: <https://bit.ly/2XM3J9H>

“Researchers hunt for tick in Anchorage parks.” *KTV4*. 20 June 2019. Available: <https://bit.ly/2ybGiML>

“Chancellor Sandeen on UAA's involvement in the Anchorage Climate Action Plan.” *University of Alaska-Anchorage*. 16 May 2019. Available: <https://bit.ly/2Yivfwa>

“Research tracking tick increase in Alaska.” *KTUU*. 15 April 2019. Available: <https://bit.ly/2ShI3iz>

“Investigating the ecology of a deadly virus.” *Nelson Institute for Environmental Studies*. 6 June 2013. Available: <https://bit.ly/35gp8JZ>

RADIO

“Soldotna planning ahead for climate change.” *Central Kenai Peninsula Public Radio*. 20 May 2020. Available: <https://bit.ly/36jwKw8>

“Surprise. Alaska as ticks, and more are on the way.” *Alaska Public Media*. 3 October 2019. Available: <https://bit.ly/2xo9foA>

“NCAR, CDC researching weather as a West Nile predictor.” *National Public Radio*. 11 May 2015. Available: <https://bit.ly/3cXO7ED>

“Rain with a chance of West Nile: Weather could predict outbreaks.”(podcast). *NSF Live Science*. 27 August 2015. Available: <https://bit.ly/2YdV68p>

PRINT

“Ticks – and tick-borne risks – are creeping north to the Arctic as the climate warms. 14 April 2021. *Arctic today*. Available: <https://bit.ly/2Q6Fy4D>

“UAA study probes unseen effects of Swan Lake Fire.” 24 September 2020. *KDLL National Public Radio*. Available: <https://bit.ly/3e7w9lb>

“Of Note: The Municipality of Anchorage climate action strategy.” 11 November 2019. *Anchorage Press*. Available: <https://bit.ly/2YdpGz3>

“Alaska just had the most ridiculous summer. That’s a red flag for the planet.” *CNN*. 10 September 2019. Available: <https://cnn.it/3cXMLK3>

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“New Anchorage climate plan class for 80 percent cut to emissions by 2050.” *Alaska Public Media*. 6 May 2019. Available: <https://bit.ly/2KMgbPn>

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“Tick, tick, tick: Alaska braces for invading parasites.” *The Associated Press*. 17 April 2019. Available: <https://bit.ly/2Yim3ba>

“Municipality of Anchorage releases draft Climate Action Plan for public comment.” *The Anchorage Press*. 5 March 2019. Available: <https://bit.ly/2Wb27E9>

“Bridging the gap between classroom and real life.” *Green and Gold*. 22 January 2019. Available: <https://bit.ly/2SmG3pg>

“Housing? Shops? Gardens? Ideas swirl for former Anchorage hospital site overlooking Ship Creek.” *Alaska Daily News*. 8 November 2018. Available: <https://bit.ly/2y8xVBC>

“Could Native Hospital site become an urban farm?” *KTV4*. 9 August 2018. Available: <https://bit.ly/3cSLJiq>

“More ticks are being reported in Alaska. Researchers want to know how dangerous they are.” *Alaska Daily News*. 27 July 2018. Available: <https://bit.ly/2ydEiDV>

“Are there ticks in Alaska?” *The Cordova Times*. 26 July 2018. Available: <https://bit.ly/2KMj9mN>

“A needle in a haystack: UAA researchers are on the hunt for ticks in Alaska.” *Green and Gold*. 26 July 2018. Available: <https://bit.ly/3bJsJmp>

“Here’s really where Zika mosquitoes are likely in the U.S.” *NPR*. 13 June 2016. Available: <https://n.pr/3cX0qAZ>

“Warmer weather marks worse West Nile seasons.” *Weather.com*. 11 May 2015. Available: <https://bit.ly/2Vrjrzz>

“NCAR researcher Micah Hahn sees weather forecasting as means to predict West Nile.” *Boulder Daily Camera*. 9 May 2015. Available: <https://bit.ly/2YgFHUP>

“Hot year? Watch out for West Nile.” *NBC*. 8 May 2015. Available: <https://nbcnews.to/2YismeO>

“Scientists find a way to predict West Nile outbreaks.” *Time*. 8 May 2015. Available: <https://bit.ly/2SllqcV>

“Biting back: scientists aim to forecast West Nile outbreaks.” *University Corporation for Atmospheric Research*. 7 May 2015. Available: <https://bit.ly/2W8Jykf>

“Hahn recognized for early career contributions in ecology and health.” *Nelson Institute for Environmental Studies*. 29 August 2014. Available: <https://bit.ly/35gzTvX>

“Sweet and Deadly: Bat-borne virus brews in Bangladesh’s date palm pots.” *QUEST: The Science of Sustainability*. 27 May 2014. Available: <https://bit.ly/3d2b3Ts>

“Intense human settlement and forest disruption linked to virus outbreak.” *University of Wisconsin News*. 10 December 2013. Available: <https://bit.ly/2VN68jn>

- “Dangerous viruses: New weapons against new foes.” *The WhyFiles*. 17 October 2013. Available: <https://bit.ly/2yY4Skc>
- “Student research: Micah Hahn seeks environmental clues to deadly virus outbreaks.” *Nelson Institute on the Environment feature story*. 2 August 2011. Available: <https://bit.ly/3bPLeFQ>
- “Report shows \$1.5 billion annual impact of bicycling in Wisconsin.” *Wisconsin State Journal*. February 2010.

Compost and Sustainable Agriculture Educator, Madison, WI

08/10 - 05/13

- Taught and led activities about composting and vermicomposting, sustainable agriculture, and homesteading skills for community groups
- Led workshops at Schenk Elementary, the Madison’s Children Museum, and University of Wisconsin-Madison for elementary students to adults on topics such as the science of composting, container gardening, soap making, and sprouting

PRESENTATIONS

PROFESSIONAL MEETINGS AND INVITED TALKS

- Small mammal trapping in Anchorage parks. *Alaska Small Mammal Working Group Meeting*, Anchorage, AK, February 12, 2020.
- Prioritizing population health. *Alaska Public Health Association Conference*, Anchorage, AK, January 23, 2020.
- Understanding the risk of ticks and tick-borne diseases in Alaska. *Alaska Tribal Conference for Environmental Management*, Anchorage, AK, November 19-22, 2019.
- Understanding the risk of ticks and tick-borne diseases in Alaska. *Alaska Invasive Species Conference*, Fairbanks, AK, October 24, 2019.
- Understanding the risk of ticks and tick-borne diseases in Alaska. *Alaska Environmental Public Health Association Conference*, Anchorage, AK, October 9-11, 2019.
- Understanding the risk of ticks and tick-borne diseases in Alaska. *Alaska INBRE Conference*, Talkeetna, AK, September 21-22, 2019.
- Collaborative climate action planning in Anchorage, Alaska. *National Adaptation Forum*, Madison, WI, April 23-25, 2019.
- Collaborative climate action planning in Anchorage, Alaska. *Alaska Forum on the Environment*, Anchorage, AK, February 13, 2019.
- Planning for climate resilience in Anchorage: A campus-community partnership to address the social determinants of health through adaptation and mitigation policies. Keynote at the *Alaska Public Health Association Conference*, Anchorage, AK, January 22-24, 2019.
- At-risk youth programs in southcentral Alaska: curriculum and evaluation. *Alaska Public Health Association Conference*, Anchorage, AK, January 22-24, 2019.
- Understanding the risk of ticks and tick-borne diseases in Alaska. *Alaska Environmental Public Health Association Conference*, Anchorage, AK, October 16, 2018.
- Understanding the risk of ticks and tick-borne diseases in Alaska. *Alaska OneHealth Working Group meeting*, Anchorage, AK, October 12, 2018.
- Collaborative climate action planning in Anchorage, Alaska. *International Congress on Circumpolar Health*, Copenhagen, Denmark, August 12-15, 2018.
- Promoting adaptive capacity with a geo-locator device check-out program in Wainwright, Alaska. *Alaska Health Summit*, Anchorage, AK, January 16-18, 2018.
- Modeling the geographic distribution of *Ixodes scapularis* and *Ixodes pacificus* in the continental United States. *Council for State and Territorial Epidemiologists Conference*, Anchorage, AK, June 19-23, 2016.
- Land cover, climate, and demographic characteristics associated with counties reporting human West Nile virus disease in the United States, 2004-2013. *World Congress of the International Association for Landscape Ecology*, Portland, OR, July 5-10, 2015.

- Environmental Health GIS Smorgasboard: Remote sensing 101 + Open-source GIS tools + Finding spatial health and environmental data. *Council of State and Territorial Epidemiologists Meeting*. GIS and Vector-borne Diseases Workshop. June 14, 2015.
- Meteorological conditions associated with increased incidence of West Nile virus disease in the United States, 2004-2012. *American Society of Tropical Medicine and Hygiene*, New Orleans, LA, November 2-6, 2014.
- Meteorological conditions associated with increased incidence of West Nile virus disease in the United States, 2004-2012. *U.S. Regional Association of the International Association for Landscape Ecology*, Anchorage, AK, May 17-22, 2014.
- Designing studies to investigate connections between climate and vector-borne diseases. *Centers for Disease Control and Prevention, National Center for Environmental Health. Climate-Ready States and Cities Grantee Meeting*. Atlanta, GA. April 24, 2014.
- Roosting behavior and habitat selection of *Pteropus giganteus* in Bangladesh. *U.S. Regional Association of the International Association for Landscape Ecology*, Austin, TX, April 14-18, 2013.
- Understanding the impact of landscape on *Pteropus* roost selection and Nipah virus dynamics in Bangladesh. *American Society of Tropical Medicine and Hygiene*, Atlanta, GA, November 11-15, 2012.
- Assessing social and ecological determinants of Nipah virus risk in Bangladesh. *Association of American Geographers Annual Meeting*, Seattle, WA, April 12-16, 2011.
- Linking landscape and Nipah virus spillover: application of landscape ecology principles to public health research. *International Association of Ecology and Health Conference*, London School of Hygiene and Tropical Medicine, London, UK, August 18-20, 2010.
- HealthScapes: a web resource for visualization and analysis of infectious disease. *National Environmental Public Health Conference*, Centers for Disease Control, Atlanta, GA, October 26-28, 2009.
- HealthScapes: A collaborative web resource for visualization and analysis of disease emergence, *IGERT Principal Investigators Meeting*, Alexandria, VA, May 17-18, 2009.
- HealthScapes.org: A tool for mapping environment-based vulnerability to infectious disease emergence. *European Wildlife Disease Association (EWDA) Student Workshop*, Veyrier-du-Lac, France, March 19-22, 2009 and *Center for Biodiversity and Conservation Milstein Science Symposium: Exploring the Dynamic Relationship Between Health and the Environment*, New York City, NY, April 2-3, 2009.
- Update on Nipah virus ecology in *Pteropus giganteus*, Bangladesh. JH Epstein, SA Khan, M Hahn, J Hossain, AM Kilpatrick, A Islam, E Gurley, HE Field, WI Lipkin, S Luby, and P Daszak. *Bats and Emerging Viral Disease Workshop*, National Institutes of Health. Rockville, MD, September 10-11, 2009.
- The Livelihood Vulnerability Index: a pragmatic approach to assessing risks from climate variability and change. M Hahn, A Reiderer, and S Foster. *Society for Public Health Education Annual Conference*, San Diego, CA, October 23-25, 2008 and *International EcoHealth Forum*, Merida, Mexico, December 1-5, 2008.

OUTREACH AND ENGAGEMENT

- Climate change and health in Alaska. *Anchorage Museum SEED Lab – Tomorrow Today Brownbag Series*. Online webinar. May 14, 2020.
- Understanding the risk of ticks and tick-borne diseases in Alaska. *Matsu Wildlife Wednesdays*. Online webinar. May 6, 2020.
- Health impacts of wildfire smoke (and what you can do to reduce your exposure). *Anchorage Wildfire Forum*, Anchorage, AK. March 5, 2020. Available: <https://bit.ly/3c0SK0s>
- Climate change is here: What can YOU do? *Alaska Commonground Forum*, 49th State Brewery, Anchorage, AK. November 6, 2019. Available: <https://bit.ly/2VOQJ23>
- We have ticks in Alaska? *Anchorage Science Pub*, 49th State Brewery, Anchorage, AK. September 8, 2019.
- Understanding the risk of ticks and tick-borne diseases in Alaska. *Eagle River Nature Center*, Eagle River, AK. September 8, 2019.
- Understanding the role of migratory birds in the risk of ticks and tick-borne diseases in Alaska. *Kachemak Bay Bird Festival*, Homer, AK. May 19-20, 2019.

Understanding the risk of ticks and tick-borne diseases in Alaska. *Alaska Local Environmental Observers (LEO) Network Webinar*. April 16, 2019.

Lessons learned from a geo-location device checkout program in Wainwright, Alaska. *Alaska Local Environmental Observers (LEO) Network Webinar*. March 19, 2019.

Understanding the risk of ticks and tick-borne diseases in Alaska. *UAF OneHealth Seminar*, Fairbanks, AK. January 28, 2019.

Attack of the ticks (or not): Is there something besides bears we should fear in the woods? *Anchorage Nerd Nite*, Williwaw. Anchorage, AK, November 7, 2019.

Collaborative climate action planning in Anchorage, Alaska. *UAA Engineering Seminar*, Anchorage, AK, October 19, 2018.

Climate and human health in Alaska: What are we doing to prepare? *Korea University visit to UAA*, Anchorage, AK, September 22, 2018.

Ticks and tick-borne diseases in Alaska. *Alaska OneHealth tour for the U.S. State Department*, Anchorage, AK, May 18, 2018.

Good health and well-being – Human-environment interactions. *North x North Festival*, Anchorage, AK, April 27-29, 2018.

The not-so-scary world of science communication. *Colorado State University. MPH Seminar Series*. Fort Collins, CO. January 30, 2014.

TRAINING

NIH Grant Development Workshop <i>University of Alaska-Anchorage</i>	2018
Environmental Education Continuing Ed Field Course <i>Alaska Geographic</i> , Prince William Sound, Alaska	2018
Software for Assisted Habitat Modeling Workshop <i>U.S. Geological Survey (USGS)</i> , Fort Collins, CO	2014
Journey of Facilitation and Collaboration <i>University of Wisconsin-Madison</i>	2009
<ul style="list-style-type: none"> • Week-long workshop focused on recognizing group dynamics and harnessing a team’s potential for complex problem-solving through effective facilitation 	
Certificate on Humans and the Global Environment (CHANGE) <i>University of Wisconsin-Madison</i>	08/08 - 08/09
<ul style="list-style-type: none"> • Three-semester curriculum to train graduate students in the skills necessary to participate in integrative, interdisciplinary science research • Training involved active listening, group facilitation and conflict resolution, team-building, science ethics, negotiation, media relations, science communication, and understanding epistemology/disciplinary values 	

INTERNATIONAL WORK EXPERIENCE

Bangladesh (4 months), Mozambique (3 months), India (1 month), Kenya (4 months)