

Andrew Zimmer

Curriculum Vitae

Montana State University · 106 Traphagen Hall · Bozeman, MT · 59717

✉ andrew.zimmer1@montana.edu ☎ +1 541 636 6405 🌐 zimmermaps.github.io | Updated: 02 Jan 2024

Education

PhD Geography · University of Arizona	2022
Dissertation: <i>Dynamics of Rural-Urban Food Systems in Southern Africa</i>	
MS Environmental Science & Technology · Lancaster University, UK	2017
BA Geography · Lancaster University, UK	2016
<i>Study-abroad at Oregon State University</i>	2015

Academic Appointments

Research Scientist

Department of Earth Sciences, Montana State University 2024 - present
Geospatial Core Facility, Montana State University

Postdoctoral Researcher

Department of Earth Sciences, Montana State University 2023
Geospatial Core Facility, Montana State University

Graduate Instructor

School of Geography, Development & Environment University of Arizona 2021 - 2022

Graduate Teaching Assistant

School of Geography, Development & Environment University of Arizona 2020 - 2022

Graduate Research Assistant

School of Geography, Development & Environment University of Arizona 2018 - 2022

Research

Papers In Progress

[1] **Zimmer, A**, Tuholske, C, Gaughan, A, Brooks, N. Global Urban Demographic Change and Migration Patterns. *In Review*

[2] **Zimmer, A**, Tuholske, C, Hultquist, C. Global Patterns of Extreme Heat and Flooding Risk *In Prep*

[3] **Zimmer, A**, Guido, Z, Anderson P, Wang, J, Baylis, K, Evans, T. Socio-Environmental Determinants of Maize Price Volatility in Southern Africa *In Prep*

Peer-Reviewed Publications

- [13] Gerlak, AK, Guido, Z, Owen, G, Rodriguez McGoffin, S, Louder, E, Davies, J, Smith, KJ, **Zimmer, A**, Murviet, A, Meadow, A, Shrestha, P, Joshi, N. 2023. Stakeholder Engagement in the Co-Production of Knowledge for Environmental Decision-making. *World Development*. [Full Text](#).
- [12] Ross, A, Marcantonio, R, Miller-Graff, L, Pearson, A, Bunting, E, **Zimmer, A**. 2023. Does water insecurity mediate the relationship between climate variability and intimate partner violence in sub-Saharan Africa? *Climate and Development*. [Full Text](#).
- [11] Mack, EA, Marcantonio R, Bunting, E, Ross, A, **Zimmer, A**, Zulu, L, Gómez-Fernández, EL, Herndon, J Henebry, G. 2022. A Systematic Literature Review of Quantitative Studies Assessing the Relationship Between Water and Conflict on the African Continent. *Sustainability*. [Full Text](#).
- [10] **Zimmer, A**, Guido, Z, Davies, J, Joshi, N, Chilenga, A, Evans, T. 2022. Food Systems and Rural- Urban Linkages in African Secondary Cities. *Urban Transformations*. [Full Text](#).
- [9] Davies, J, Blekking, J, Hannah, C, **Zimmer, A**, Joshi, N, Anderson, P, Evans, T. 2022. Governance of traditional markets and rural-urban food systems in sub-Saharan Africa. *Habitat International*. [Full Text](#).
- [8] Hannah, C, Davies, J, Green, R, **Zimmer, A**, Anderson, P, Battersby, J, Baylis, K, Joshi, N, Evans, T. 2022. Persistence of open-air markets in the food systems of Africa's secondary cities. *Cities*. [Full Text](#).
- [7] Guido, Z, Lopus, S, Waldman, K, Hannah, C, **Zimmer, A**, Krell N, Knudson, C, Estes L, Caylor K, Evans, T. 2021. Perceived links between climate change and weather forecast accuracy: new barriers to tools for agricultural decision-making. *Climatic Change*. [Full Text](#).
- [6] Davies, J, Hannah, C, Guido, Z, **Zimmer, A**, McCann, L, Battersby, J, Evans, T. 2021. Barriers to urban agriculture in sub-Saharan Africa. *Food Policy*. [Full Text](#).
- [5] Mack, EA, Bunting, E, Herndon, J, Marcantonio, R, Ross, A, **Zimmer, A**. 2021. Conflict and its relationship to climate variability in sub-Saharan Africa. *Science of the Total Environment*. [Full Text](#).
- [4] Pearson, AL, Mack, EA, Ross, A, Marcantonio, R, **Zimmer, A**, Bunting, E, Culver-Smith, A, Miller JD, Evans, T. HWISE-RCN. 2021. Interpersonal Conflict over Water is Associated with Household Demographics, Domains of Water Insecurity, and Regional Conflict: Evidence from Nine Sites across Eight Sub-Saharan African Countries. *Water*. [Full Text](#).
- [3] Hannah, C, Giroux, S, Krell, N, Lopus, S, McCann, L, **Zimmer, A**, Caylor, K, Evans, T. 2021. Has the vision of a gender quota rule been realized for community-based water management committees in Kenya? *World Development*. [Full Text](#).
- [2] **Zimmer, A**, Guido, Z, Tuholske, C, Pakalniskis, A, Lopus, S, Caylor, K, Evans, T. 2020. Dynamics of population growth in secondary cities across southern Africa. *Landscape Ecology*. [Full Text](#).

[1] Guido, Z, **Zimmer, A**, Lopus, S, Hannah, C, Gower, D, Waldman, K, Krell, N, Sheffield, J, Caylor, K, Evans, T. 2020. Farmer Forecasts: Impacts of seasonal rainfall expectations on agricultural decision-making in Sub-Saharan Africa. *Climate Risk Management*. [Full Text](#).

Talks, Webinars and Posters

*Invited **

[15*] 2023. Illuminating demographic exposure to extreme heat and flooding. Lightning Session. *American Geophysical Union*. San Francisco, CA

[14] 2023. A Global Comparison of Urban Demographic Change and Migration Patterns *American Geophysical Union*. San Francisco, CA

[13] 2023. Demographic exposure to extreme heat and flooding - Poster Presentation. *World Climate Research Program*. Kigali, Rwanda

[12] 2023. Data and Analytical Tools for Studying Heat Stress, Land Cover Change and Health Webinar with the International Food Policy Research Institute - Nigeria. Online

[11] 2023. Demographic exposure to extreme heat and flooding. *Columbia University Climate School - Managed Retreat Conference*. Columbia University, New York, NY

[10*] 2023. Securing Technology Advantages II - Human Systems. *National Security Innovation Network - Critical Resource Summit*. Montana State University, Bozeman, MT.

[9*] 2023. Understanding the rural-urban-climate nexus in Africa. *Montana State University Department of Earth Sciences Colloquium*. Montana State University, Bozeman, MT.

[8] 2023. Socio-environmental determinants of maize price volatility in southern Africa. *American Association of Geographers Annual Meeting*. Denver, CO.

[7] 2022. Socio-environmental determinants of maize price volatility. *International Institute of Migration & Development: Food (In)Security and Migrants on the Move*. Online.

[6] 2022. Dynamics of rural-urban food systems in southern Africa. *Center for Climate Adaptation Science & Solutions*. University of Arizona, Tucson, AZ.

[5] 2019. Rural-Urban Linkages of Maize Price in Zambia. *Commonwealth Geographic Bureau International Conference on Contemporary Issues in Food and Food Security*. Maputo, Mozambique.

[4] 2019. Weather Forecasts, Farmer Perceptions and Adaptation to Climate Change in Sub-Saharan Africa. *American Association of Geographers Annual Meeting*. Washington, DC.

[3] 2019. Patterns of urban growth in southern Africa. *Graduate Interdisciplinary Program (GIDP)*. University of Arizona, Tucson, AZ.

[2] 2019. Texting the climate: How farmers in southern Africa are meeting the future. *Borderlands Brewing Public Science Talks*. Tucson, AZ.

[1] 2019. Small Scale Farmers Strategies to Mitigate Fall Armyworm Impact in Rural Zambia. *Food Security and Social Justice Network*. University of Arizona, Tucson, AZ.

Teaching

Instructor of Record

GEOG230 - Our Changing Climate - University of Arizona	Winter 2021 (online) Summer 2022 (online) Fall 2022 (in-person)
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Guest Lecturer

GPHY 121D - Human Geography - Montana State University	Fall 2023
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Teaching Assistant

GEOG230 - Our Changing Climate - University of Arizona	Fall 2021 Spring 2022
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Awards, Fellowships & Grants

WCRP Open Science Conference Travel Grant World Climate Research Programme	2023
I-GUIDE Summer Workshop Travel Grant Institute for Geospatial Understanding through an Integrative Discovery Environment (I-GUIDE)	2023
Roots for Resilience Data Science Assistantship Data Science Institute, University of Arizona	2021
Global Change Minor Program Summer Research Grant Graduate College, University of Arizona	2021
Carson Scholar Science Communication Program Institute of the Environment, University of Arizona	2019
Sustainable Development Goals Research Grant School of Geography, University of Arizona	2019

Selected Press Coverage

2023 | Yale Climate Connections - "Researcher maps places and populations who face extreme heat risk" [View Here](#).

2021 | Terrain.org - "Texting the climate: How Farmers in Sub-Saharan Africa are meeting a Changing Future" [View Here](#).

Conferences, Workshops & Training

American Geophysical Union Annual Meeting. <i>San Francisco, CA.</i>	2023
Co-convened session " <i>Compound Climate Hazards, Urbanization and Public Health</i> "	
Group on Earth Observations (GEO) - Global Heat Resilience Service - Scoping Workshop	2023
I-GUIDE - Convergence Science in Action - Summer Workshop <i>UCAR, Boulder, CO</i>	2023
Columbia University Climate School - Managed Retreat Conference. <i>New York, NY</i>	2023
American Association of Geographers Annual Meeting. <i>Denver, CO.</i>	2023
Co-organized session " <i>Understanding the rural-urban climate nexus</i> "	
Foundational Open Science Skills, CyVerse. <i>Online.</i>	2021
American Association of Geographers Annual Meeting. <i>Online.</i>	2020
Commonwealth Geographic Bureau Workshop on Food and Food Security with the Hungry Cities Partnership. <i>Maputo, Mozambique</i>	2019
ASU & UA Workshop on Climate Justics. <i>Tucson, AZ.</i>	2019
American Association of Geographers Annual Meeting. <i>Washington, DC.</i>	2019
Alan Alda Center for Communicating Science Workshop. <i>Tucson, AZ.</i>	2019

Service

Referee

Nature Cities, World Development Perspectives, Environmental Development, Weather, Climate & Society, Climate Services, Cogent Food and Agriculture, International Journal of Agricultural Sustainability

Committees

AAG Population Specialty Group - Student Paper Competition Committee

Mentorship

Mentor - Diana Liverman Scholars Program	2021
Peer Mentor - School of Geography, University of Arizona	2020

Membership

American Geophysical Union (AGU)	2022 - present
Population-Environment Research Network (PERN)	2022 - present
Global Land Programme (GLP)	2022 - present
American Association of Geographers (AAG)	2018 - present
Southern Arizona Geography Association (SAGA)	2018 - 2022

Additional Information

Software

Programming Experience:

R, Python

Cloud Computing Experience:

Google Earth Engine, Microsoft Azure, HPC

GIS Experience:

QGIS, ArcGIS

Survey Experience:

Qualtrics, TextIt SMS

Fieldwork Experience:

Kenya, Zambia

Citizenship:

United Kingdom

United States Permanent Resident