CURRICULUM VITAE

Jonathan A. Sullivan
Assistant Professor, Nelson Institute for Environmental Studies
University of Wisconsin – Madison, Madison, WI
jonathan.sullivan@wisc.edu
website: https://jonathanasullivan.github.io/

EDUCATION

2021 **Ph.D., Environment & Sustainability, University of Michigan, Ann Arbor, Michigan, United States**
Dissertation: Land-Use and Equity Outcomes of the Global Land Rush in Tanzania
Advisors: Arun Agrawal & Dan Brown
Major fields: Sustainability, Development, Remote Sensing

2013 **Master of Forestry, Yale School of Forestry & Environmental Studies, Yale University, New Haven, Connecticut, United States**
Advisors: Marc Ashton
Major fields: Forest management, Conservation

2008 **B.A., Environmental Chemistry, Minor Public Policy, Connecticut College, New London, Connecticut, United States**
Dissertation: Synthesis of Optically Active Seven-Membered Carbocyclic Rings via a Microwave- Assisted Oxyanionic 5-exo dig Cyclization/ Claisen Rearrangement Sequence
Advisors: Timo Ovaska & MaryAnne Borrelli

EMPLOYMENT

2025-Present **Assistant Professor**
Nelson Institute for Environmental Studies
University of Wisconsin - Madison

2023-2025 **Assistant Professor**
School of Geography, Development & Environment
University of Arizona

2021-2023 **Post-doctoral researcher**
School of Geography, Development & Environment
University of Arizona

RESEARCH GRANTS

2025 **Co-PI.** National Science Foundation, ($300,000), EAGER: Satellite-Based Evaluation of US Flood-Mitigation Infrastructure Performance.

2024 **PI.** University of Arizona TRIF 18th Mile Fund, ($33,000), Harnessing Satellites & AI to Estimate Flood-Induced Agricultural Losses.

Co-PI. University of Arizona OneHealth Research Initiative ($50,000) 2024-2025, One Health Approach to Understanding the Impact of Tropical Cyclones on Human and Environmental Health

Before 2021 **Co-PI**. SESYNC Graduate Pursuit ($10,000 + travel & lodging for participants), Financial Opacity & Challenges to Forest Governance in Indonesia and Malaysia**.**

PI. Land Matrix Commissioned Study, ($5,000) 2019, Data Campaign for Large-Scale Land Transactions in Tanzania.

Co-PI. Google Earth Engine Research Award ($100,000), 2016-2019. Development of a Global Database for Historical Flood Events in Google Earth Engine.

HONORS & AWARDS

2021 University of Michigan Rackham One-Term Fellowship ($16,800). Dissertation writing and completion support

2019 Rackham Graduate Student Research Grant ($2,900). Field-work support for household data collection in Tanzania

2018 Fulbright Research Fellow, Tanzania ($20,150). Food Security and the Well-being Impacts of Privatization

Boren Fellow, Tanzania ($23,000). Food Security and the Well-being Impacts of Agricultural Investments in Tanzania

Rackham International Research Award, Tanzania ($11,250). Field-work support for household and property data collection in Tanzania

Rackham Language Training Award, Swahili Training in Tanzania ($6,500). Tuition, travel, and materials support for Swahili training

2017 Weinberg Fellowship for Population, Development and Climate Change ($7,500). Global Land Rush, Migration & Deforestation

NSF Graduate Research Fellowship Program (GRFP) – Honorable Mention. Interactions among Payments for Ecosystem Services and Governance Strategies in Guatemala's Agricultural Frontier

PUBLICATIONS

Refereed Journal Articles

1. Anderson, T. G., Pons, D., Taylor, M., Xuruc, A., Rodríguez Salvatierra, H. H., Guido, Z., **Sullivan, J. A.**, Liverman, D., & Anchukaitis, K. J. (2025). Complexity and mediating factors in farmers' climate perceptions and agricultural adaptation strategies in the Guatemalan Dry Corridor. Climatic Change, 178(7), 139. https://doi.org/10.1007/s10584-025-03978-5

2. Aggarwal, S., Hu, J.K. **Sullivan J.A.**, Parks, R.M., Nethery, R.C. In press. Severe flooding and cause-specific hospitalization in the United States. Lancet Planetary Health. https://arxiv.org/abs/2309.13142
3. Anderson T., Pons D., Taylor M., Xuruc A., Rodriguez Salvatierra H., Guido Z., **Sullivan J.A.**, Liverman D., Anchukaitis K. *In press.* Complexity and mediating factors in farmers' climate perceptions and agricultural adaptation strategies in the Guatemalan Dry Corridor. Climatic Change.
4. Lynch, V. D., **Sullivan, J. A.,** Flores, A. B., Xie, X., Aggarwal, S., Nethery, R. C., Kioumourtzoglou, M.-A., Nigra, A. E., & Parks, R. M. (2025). Large floods drive changes in cause-specific mortality in the United States. Nature Medicine, 1–9. https://doi.org/10.1038/s41591-024-03358-z
5. Friedrich, H. K., Tellman, B., **Sullivan, J. A.**, Saunders, A., Zuniga-Teran, A. A., Bakkensen, L. A., Cawley, M., Dolk, M., Emberson, R. A., Forrest, S. A., Gupta, N., Gyawali, N., Hall, C. A., Kettner, A. J., Lozano, J. L. S., & Bola, G. B. (2024). Earth Observation to Address Inequities in Post-Flood Recovery. Earth's Future, 12(2), e2023EF003606. https://doi.org/10.1029/2023EF003606
6. Flores, A. B., **Sullivan, J. A.**, Yu, Y., & Friedrich, H. K. (2024). Health Disparities in the Aftermath of Flood Events: A Review of Physical and Mental Health Outcomes with Methodological Considerations in the USA. Current Environmental Health Reports. https://doi.org/10.1007/s40572-024-00446-7
7. **Sullivan J.A.**, Samii, C., Brown, D., Moyo, F., Agrawal, A. 2023. Large-scale land acquisitions exacerbate local farmland inequalities in Tanzania. Proceedings of the National Academy of Sciences 120, e2207398120. https://doi.org/10.1073/pnas.2207398120
8. Samii C., Wang Y., **Sullivan J.A.**, Aronow, P.M. 2022. Inference in Spatial Experiments with Interference using the SpatialEffect Package. *Journal of Agricultural, Biological, and Environmental Statistics.* https://doi.org/10.1007/s13253-022-00517-y
9. **Sullivan J.A.**, Brown DG, Moyo F, Jain M. Agrawal A. (2022). Impacts of large-scale land acquisitions on smallholder agriculture and livelihoods in Tanzania . *Env. Res. Letters*. https://doi.org/10.1088/1748-9326/ac8067
10. Tellman, B.*, **Sullivan, J. A.***, Kuhn, C., Kettner, A. J., Doyle, C. S., Brakenridge, G. R., Erickson, T. A., & Slayback, D. A. 2021. Satellite imaging reveals increased proportion of population exposed to floods. **Nature**, https://doi.org/https://doi.org/10.1038/s41586-021-03695-w. *(*) Equal first co-authors*
11. Williams, T. G., Trush, S. A., **Sullivan, J. A.**, Liao, C., Chesterman, N., Agrawal, A., Guikema, S. D. and Brown, D. G. 2021. Land-use changes associated with large-scale land transactions in Ethiopia, Ecology and Society, 26(4). https://doi.org/10.5751/ES-12825-260434
12. Liao, C., Nolte, K., **Sullivan, J.A.**, Brown, D.G., Lay, J., Althoff, C., Agrawal, A., 2020. Carbon emissions from the global land rush and their potential mitigation. **Nature Food** 2, 15–18. https://doi.org/10.1038/s43016-020-00215-3
13. Hawker L, Neal J, Tellman B, Liang J, Schumann G., Doyle C, **Sullivan JA**, Savage J., Tshimanga R. 2020. Comparing earth observation and inundation models to map flood hazards. Environ. Res. Letters https://doi.org/10.1088/1748-9326/abc216
14. Agrawal A, Brown DG, **Sullivan J.A.**, 2019. Are Global Land Grabs Ticking Socio-environmental Bombs or Just Inefficient Investments? One Earth 1, 159–162. https://doi.org/10.1016/j.oneear.2019.10.004

15. Ovaska T, **Sullivan J.A.**, Ovaska S, Winegrad J, Fair J. 2009. Asymmetric Synthesis of Seven-Membered Carbocyclic Rings via a Sequential Oxyanionic 5-Exo-Dig Cyclization/ Claisen Rearrangement Process. Total Synthesis of (-) Frondosin B. Organic Letters, 11(12), 2715-2718.
16. Li X, Keon A, **Sullivan J.A.**, Ovaska T. 2008. Studies toward Frondosin A and it Analogues. Formal Total Synthesis of (±)-Frondosin A. Organic Letters, 10(15), 3287-3290

Refereed Book Chapters

1. Tellman, B., **Sullivan, J. A.,** & Doyle, C. S. (2021). Global Flood Observation with Multiple Satellites: Applications in Rio Salado, Argentina, and the Eastern Nile Basin. In H. Wu, D. P. Lettenmaier, Q. Tang, & P. J. Ward (Eds.), Global Drought and Flood: Observation, Modeling, and Prediction. American Geophysical Union; 1st edition.
2. Schwarz B, Pestre G, Tellman B, **Sullivan J.A.**, Kuhn C, Mahtta R, Pandey B, Hammett L, (2018). Mapping Floods and Assessing Flood Vulnerability for Disaster Decision-Making: A Case Study Remote Sensing Application in Senegal," in Earth Observation Open Science and Innovation, P.-P. Mathieu and C. Aubrecht, Eds. Cham: Springer International Publishing, 2018, pp. 293–300.

Non-refereed articles

1. **Sullivan, J. A.**, Friedrich, H. K., Tellman, B., Saunders, A., & Belury, L. (2024). Five Key Needs for Addressing Flood Injustice. Eos. http://eos.org/science-updates/five-key-needs-for-addressing-flood-injustice

Work In Progress

1. **Sullivan, J.A.,** Brown, D.G., Wengrowski E., Jain M., Agrawal, A. *In prep*. Deep Learning for Monitoring Large-Scale Croplands in sub-Saharan Africa.
2. **Sullivan J.A.,** Baylis, K., Zimmer, A., Evans, T. *In prep.* Urban Legend: Disparities in Household Diets and Food Security Along a Rural-Urban Continuum.

SERVICE & OUTREACH

National/international

2023-present Grant review panelist for NASA (multiple programs)

2022-2023 Ad-hoc Grant Reviewer for NSF HEGS (Human-Environment and Geographical Sciences Program)

2021-present Journal Peer Reviewer*: PNAS, PNAS-Nexus, Nature Communications Earth & Environment, World Development, World Development Perspectives, Ambio, Agricultural Economics, Journal of Development Studies, International Conference on Learning Representations (ICLR), Conference on Computer Vision and Pattern Recognition (CVPR) EarthVision Workshop*

Departmental service

2024 Colloquium committee, Diversity Equity and Inclusion (DEI) committee

2023 Ad-hoc undergraduate recruitment committee

Graduate student advising
Advisees - Current
Brooke Cox, MS, Environment and Resources, University of Wisconsin-Madison

Membership - Current
Prashanti Sharma, PhD, Geography, University of Arizona
Kai Lepley, PhD, Geography, University of Arizona

MEDIA

2024 **Forbes.** March 14. Tanzania's Richest Man Wants to Be Africa's Biggest Farmers – If Everyone Gets Out of His Way. https://www.forbes.com/sites/johnhyatt/2024/03/14/tanzanias-richest-man-wants-to-be-africas-biggest-farmer---if-everyone-gets-out-of-his-way/

2023 **SBS News.** Aug 1. Large-scale land acquisitions exacerbate local farmland inequities https://sbs.arizona.edu/news/large-scale-land-acquisitions-exacerbate-local-farmland-inequities

2021 **NASA Earth Observatory.** Research Shows More People Living in Floodplains. https://earthobservatory.nasa.gov/images/148866/research-shows-more-people-living-in-floodplains

UNDRR Prevention Web. Aug 5. Satellite data reveals increasing proportion of population exposed to floods worldwide. https://www.preventionweb.net/news/satellite-data-reveals-increasing-proportion-population-exposed-floods-worldwide

Popular Science. Aug 12. People are moving into risky flood zones—but they may not have a choice. https://www.popsci.com/environment/world-population-flood-zones-growing/

University of Arizona News. Aug 4. New satellite data reveal increasing proportion of world's population exposed to floods. https://news.arizona.edu/story/satellite-data-reveals-increasing-proportion-population-exposed-floods-worldwide

University of Michigan News. Aug 4. New satellite data reveal increasing proportion of world's population exposed to floods https://news.umich.edu/new-satellite-data-reveal-increasing-proportion-of-worlds-population-exposed-to-floods/

CONFERENCES & PRESENTATIONS

Invited

2024 **UArizona Hydrology and Atmospheric Science (HAS) Colloquium.** Tucson, Arizona. Presentation. *Using Satellite-Observed Inundation to Investigate Health Disparities in the Aftermath of Floods.*

Submitted

2024 **Global Land Programme 5th Open Science Meeting 5.** Oaxaca, Mexico. Co-organized session. *Examining the Causes, Consequences, and Reponses to Increasing Land Consolidation and Inequality.*

Global Land Programme 5th Open Science Meeting. Oaxaca, Mexico. Presentation. *Large-scale land acquisitions exacerbate local farmland inequalities.*

American Association of Geographers. Honolulu, HI. Co-organized session. *Examining Flood Injustice from Exposure to Recovery*.

American Association of Geographers. Honolulu, HI. Presentation. *Urban Legend: Disparities in Household Diets and Food Security Along a Rural-Urban Continuum*

2023 **American Association of Geographers.** Denver, CO. Co-organized session. *Understanding the rural-urban-climate nexus.*

American Association of Geographers. Denver, CO. Presentation. *Large-scale land acquisitions exacerbate local land inequalities in Tanzania.*

2022 **American Geophysical Union.** Chicago, IL. Presentation. *Deep Learning for Monitoring Large-Scale Croplands in sub-Saharan Africa.*

American Geophysical Union. Chicago, IL. Presentation. *Using Satellite-Observed Inundation for Socio-economic Assessments of Flood Impacts in the United States.*