## **Matthew Hamilton**

CONTACT INFORMATION	School of Environment and Natural Resources The Ohio State University 2021 Coffey Rd., Columbus, OH 43210  https://sens-lab.github.io hamilton.1323@osu.edu 320E Kottman Hall
ACADEMIC APPOINTMENTS	Assistant Professor, School of Environment and Natural Resources The Ohio State University, Columbus, OH  8/2018 -
	Core Faculty, Sustainability Institute 1/2019 - The Ohio State University, Columbus, OH
	NSF SBE Postdoctoral Fellow, School of Env.'t and Sustainability 8/2017 - 8/2018 University of Michigan, Ann Arbor, MI
	Research Fellow, School of Environment and Sustainability University of Michigan, Ann Arbor, MI  8/2016 - 8/2017
EDUCATION	PhD, Ecology (emph. Environmental Policy), University of California, Davis 2016
	MSc, International Agricultural Development, University of California, Davis 2012
	<b>BA</b> , Government, Dartmouth College, Hanover, NH 2005
Publications	22. Fried, H., <b>M. Hamilton</b> , R. Berardo. Forthcoming. "Theorizing multilevel incentive structures guiding forum navigation." <i>Journal of Public Administration Research and Theory</i> . muac042. doi:10.1093/jopart/muac042
	21. Shuman, J.K., J.K. Balch, R.T. Barnes, P.E. Higuera, C.I. Roos, D.W. Schwilk, E.N. Stavros, <b>M. Hamilton</b> and 79 other coauthors. 2022. "Reimagine fire science for the anthropocene." <i>PNAS Nexus</i> . 1(3):pgac115. doi:10.1093/pnasnexus/pgac115
	20. Hamilton, M., J. Salerno, A.P. Fischer. 2022. "Cognition of feedback loops in

- 20. **Hamilton, M.**, J. Salerno, A.P. Fischer. 2022. "Cognition of feedback loops in a fire-prone social-ecological system." *Global Environmental Change*. 74: 102519. doi:10.1016/j.gloenvcha.2022.102519
- Palsa, E., M. Bauer, C. Evers, M. Hamilton, M. Nielsen-Pincus. 2022. "Engagement in local and collaborative wildfire risk mitigation planning across the western U.S. Evaluating participation and diversity in Community Wildfire Protection Plans." PLoS ONE. 17(2): e0263757. doi:10.1371/journal.pone.0263757
- 18. Fried, H., **M. Hamilton**, R. Berardo. 2022. "Closing integrative gaps in complex environmental governance systems." *Ecology and Society*. 27(1). doi:10.5751/ES-12996-270115
- 17. **M. Hamilton**, A.P. Fischer, L. Jasny. 2021. "Bridging collaboration gaps in fragmented environmental governance systems." *Environmental Science & Policy*. 124:461-470. doi:10.1016/j.envsci.2021.07.014
- 16. Wade, J., M. Beetstra, M. Hamilton, S.W. Culman, A. J. Margenot. 2021. "Soil health conceptualization differs across key stakeholder groups in the Midwest." *Journal of Soil and Water Conservation*. 02158. doi:10.2489/jswc.2021.02158

- 15. Jasny, L., L. Roldan Gomez, **M. Hamilton**, C. Prell, A. Guerrero, P. Matous, E. Schiffer, J. Sayles, M. Barnes, D. Jacobs. 2021. "Participant Engagement in Environmentally Focused Social Network Data Collection." *Social Networks*. 66:125-138. doi:10.1016/j.socnet.2021.01.005
- 14. Berardo, R., M. Fischer, **M. Hamilton**. 2020. "Collaborative governance and the challenges of network-based research." *The American Review of Public Administration*. 50(8):898-913. doi:10.1177/0275074020927792
- 13. **Hamilton, M.,** J. Salerno. 2020. "Cognitive maps reveal diverse perceptions of how prescribed fire affects forests and communities." *Frontiers in Forests and Global Change*. 3:1-11. doi:10.3389/ffgc.2020.00075
- 12. Wilson, R., A. Herziger, M. Hamilton, J. Brooks. 2020. "Individual adaptation to climate-exacerbated hazards: Shifting from incremental coping to transformative adaptation." *Nature Climate Change*. 10:200-208. doi:10.1038/s41558-020-0691-6
- 11. **Hamilton, M.**, J. Hileman, Ö. Bodin. 2020. "Evaluating heterogeneous brokerage: New conceptual and methodological approaches and their application to multi-level environmental governance networks." *Social Networks*. 61:1-10. doi:10.1016/j.socnet.2019.08.002
- 10. **Hamilton, M.**, J. Salerno, A.P. Fischer. 2019. "Cognition of complexity and tradeoffs in a wildfire-prone social-ecological system." *Environmental Research Letters*. 14:125017. doi:10.1088/1748-9326/ab59c1
- 9. Sayles, J.S., M. Mancilla Garcia, **M. Hamilton**, S.M. Alexander, J.A. Baggio, A.P. Fischer, K. Ingold, G.R. Meredith, J. Pittman. 2019. "Social-ecological network analysis for sustainability sciences: a systematic review and innovative research agenda for the future." *Environmental Research Letters*. 14:093003. doi:10.1088/1748-9326/ab2619
- 8. **Hamilton, M.**, M. Lubell. 2019. "Climate change adaptation, social capital, and the performance of polycentric governance institutions." *Climatic Change*. 152(3):307-326. doi:10.1007/s10584-019-02380-2
- 7. **Hamilton, M.**, A.P. Fischer, A. Ager. 2019. "A social-ecological network approach for understanding wildfire risk governance." *Global Environmental Change*. 54:113-123. doi:10.1016/j.gloenvcha.2018.11.007
- Hamilton, M. 2018. "Understanding what shapes varying perceptions of the procedural fairness of transboundary environmental decision-making processes." *Ecology and Society*. 23(4). doi:10.5751/ES-10625-230448
- 5. **Hamilton, M.**, A.P. Fischer, S. Guikema, G. Keppel-Aleks. 2018. "Behavioral adaptation to climate change in fire-prone forests." *Wiley Interdisciplinary Reviews: Climate Change*. 9(6):e553 doi:10.1002/wcc.553
- 4. **Hamilton, M.**, M. Lubell, E. Namaganda 2018. "Cross-level linkages in an ecology of climate change adaptation policy games." *Ecology and Society*. 23(2). doi:10.5751/ES-10179-230236
- 3. **Hamilton, M.**, M. Lubell. 2018. "Collaborative governance of climate change across spatial and institutional scales." *Policy Studies Journal*. 46(2):222-247. doi:10.1111/psj.12224
- 2. Farzan, S., D.J.N. Young, A.G. Dedrick, **M. Hamilton**, E.C. Porse, P.S. Coates, G. Sampson. 2015. "Western juniper management: assessing policies for improving greater sage-grouse habitat and rangeland productivity." *Environmental Management*. 1-9. doi:10.1007/s00267-015-0521-1

 Lubell, M., B.B. Cutts, L.M. Roche, M. Hamilton, J.D. Derner, E. Kachergis, K.W. Tate. 2013. "Conservation Program Participation and Adaptive Rangeland Decision-Making." Rangeland Ecology and Management. 66(6):609-620. doi:10.2111/rem-d-13-00025.1

#### **BOOK CHAPTERS**

1. Lubell, M., **M. Hamilton**, J. Mewhirter, F. Vantaggiato, R. Berardo. 2022. "Methodological Approaches to the Ecology of Games Framework." In Methods of the Policy Process, Christopher M. Weible and Sam Workman, Eds. 233-262. New York, NY: Routledge. doi:10.4324/9781003269083-9

## CURRENT FUNDED PROJECTS

PI (OSU lead; CSU PI: J. Salerno; Co-PIs: E. Toman, A.P. Fischer, A. Cheng, M. Nielsen-Pincus): Cognitive, social, and institutional dynamics of decision-making in complex hazard-prone environments. **NSF DRMS**. 2020-2023. Total: \$653k; OSU portion: \$398k.

Co-PI (PI: N. Hull; Co-PIs: J. Campbell, S. Contreras, C. Patterson, J. Waugh-Quasebarth): Systemic Interactions between Individuals and Drinking Water Quality in Appalachia. 2020-2022. Sustainability Institute and CERTAIN Ohio State Sustainability Research Seed Grant, Total: \$25k.

Co-PI (PI: P.T. Thuy; Co-PIs: D. Munroe, C. Gallemore): Identifying conditions for successful landscape-scale conservation policy implementation in Vietnam. 2019-2022. **USAID Partnerships for Enhanced Engagement in Research (PEER) Program**, Total: \$80k.

Co-PI (PI: G.M. Davies; Co-PIs: B. Mark, J. McCarty, K. Raundrup): Can Novel Technologies Promote Social and Ecological Resilience to Novel Disturbances in a Changing Arctic Climate? 2020-2022. **Battelle Engineering, Technology and Human Affairs Endowment**, Total: \$45k.

## COMPLETED FUNDED PROJECTS

Co-PI (PI: S. Downey; Co-PIs: R. Qin, B. Piperata, S. Scaggs, C. Jayaprakash): SWISH (SWIdden agricultural food systems, Sustainability, and Health). 2020-2021. **Sustainability Institute (Ohio State) Seed Grant**, Total: \$12k.

PI (Co-PI: A.P. Fischer): Linking social and ecological embeddedness, wildfire risk, and collective action. 2017-2019. **NSF SBE Postdoctoral Fellowship**. Total: \$69k.

### HONORS AND AWARDS

Best Substantive Poster Award, Political Networks (2016) Theodore and Angela Foin Graduate Award (2015-2016)

Political Networks Travel Fellowship (2015, 2016) Ecology Graduate Group Fellowship (2014 - 2016)

NSF Responding to Rapid Environmental Change IGERT (2011 - 2013)

UC Davis Graduate Student Travel Award (2011) Switzer Environmental Fellowship (2010 - 2011)

International Agricultural Development Graduate Group Fellowship (2009 - 2011)

#### INVITED TALKS

2021. "Grappling with wildfire risk across scales: how institutional, social, and cognitive processes shape coupled human-natural systems". University of California, Davis Spring Seminar, Davis, CA (online presentation).

2018. "Collaborative Networks and Wildfire Risk Mitigation in the Eastern Cascades". Portland State University School of the Environment Winter Speakers Seminar, Portland, OR.

2017. "Exploring fairness in water basin governance: Improving participation or managing expectations?" Water, Inclusion and Visions of Development Workshop, Stockholm, Sweden.

RECENT CONTRIBUTED TALKS **Hamilton, M.**, L. Dee, C. Evers, J. Inskeep, A. Jacobi, A. Lopresti, M. Nielsen-Pincus, H. Yi. 2023. "The role of decentralized local risk governance networks in diffusing discourse around climate change adaptation: The case of Community Wildfire Protection Plans in the western USA". Conference on Policy Process Research (virtual presentation).

**Hamilton, M.**, C. Evers, M. Nielsen-Pincus. 2022. "The role of decentralized local risk governance networks in diffusing discourse around climate change adaptation: The case of Community Wildfire Protection Plans in the western USA". International Sunbelt Social Network Conference (virtual presentation).

**Hamilton, M.**, C. Evers, M. Nielsen-Pincus. 2022. "Grappling with wildfire risk across scales: how institutional, social, and cognitive processes shape coupled human-natural systems". Annual Meeting of the American Association of Geographers (virtual presentation).

**Hamilton, M.**, C. Evers, M. Nielsen-Pincus, E. Palsa, M. Bauer. 2021. "Developing a library of Community Wildfire Protection Plans as a tool to understand boundary-crossing collective action". 9th International Fire Ecology and Management Congress (virtual presentation).

**Hamilton, M.**, C. Evers, M. Nielsen-Pincus. 2021. "Risk governance from the bottomup: Cross-jurisdiction coordination of wildfire risk in fragmented governance settings". Networks 2021: A Joint Sunbelt and NetSci Conference (virtual presentation).

**Hamilton, M.**, C. Evers, M. Nielsen-Pincus. 2021. "Cross-jurisdiction coordination of risk in fragmented governance settings". Annual Meeting of the American Association of Geographers (virtual presentation).

Gallemore, C., M. Hamilton, T. T. Pham. 2021. "The Challenge of Orchestrating Multi-level Governance Networks: Evidence from Forest Policy in Vietnam". The 3rd North American Social Networks Conference (virtual presentation).

**Hamilton, M.**, M. Nielsen-Pincus. 2020. "How policy networks coevolve with environmental risk: Insights from wildfire governance in the U.S. West". Annual Meeting of the American Association of Geographers, Denver, CO (virtual presentation).

Hamilton, M., A. P. Fischer, L. Jasny, A. Ager. 2019. "Brokering collaboration in fragmented risk governance settings: An actor level perspective". International Sunbelt Social Network Conference, Montreal, Québec, Canada.

**Hamilton, M.**, A. P. Fischer, L. Jasny. 2019. "Who are the brokers of collaborative risk management in wildfire-prone landscapes?". Annual Meeting of the American Association of Geographers, Washington, DC.

**Hamilton, M.** and A. P. Fischer. 2018 "Conceptualizing complexity and trade-offs in a wildfire-prone social-ecological system". Human Dimensions of Wildland Fire Conference, Asheville, NC.

**Hamilton, M.**, A. P. Fischer, A. Ager. 2018. "How does ecological connectivity predict coordination in a wildfire-prone ecosystem?" Fire Continuum Conference, Missoula, MT.

**Hamilton, M.**, A. P. Fischer, A. Ager. 2018. "Using social-ecological networks to assess alignment of risk interdependence and collaborative risk mitigation in a wildfire-prone ecosystem". Annual Meeting of the American Association of Geographers, New Orleans, LA.

**Hamilton, M.,** M. Lubell. 2018. "How Social Capital Shapes the Performance of Climate Change Adaptation Policy Processes". Midwest Political Science Association Conference, Chicago, IL.

**Hamilton, M.**, A. P. Fischer, A. Ager. 2018. "Network perspectives on risk assessment: insights from the Eastern Cascades, Oregon". Cohesive Wildland Fire Management Strategy Workshop, Reno, NV.

**Hamilton, M.**, M. Lubell. 2017. "Collaboration, influence, and cross-level linkages in climate change adaptation policy networks." Environmental Politics and Governance Conference, Bloomington, IN.

**Hamilton, M.**, A. P. Fischer, A. Ager. 2017. "Institutional Fit and Wildfire Risk Governance." Political Networks Conference, Columbus, OH.

**Hamilton, M.**, A. P. Fischer. 2017. "Aligning scales of risk and response: Insights from wildfire management networks in the eastern Cascades, Oregon." Annual Meeting of the American Association of Geographers, Boston, MA.

**Hamilton, M.**, M. Lubell. 2016. "Collaboration, influence, and cross-level linkages in climate change adaptation policy networks". Midwest Political Science Association Conference, Chicago, IL.

**Hamilton, M.**, M. Lubell. 2016. "Collaboration, influence, and cross-level linkages in climate change adaptation policy networks". Annual Meeting of the Association of American Geographers, San Francisco, CA.

**Hamilton, M.**, M. Lubell, E. Namaganda. 2015. "Climate change adaptation policy networks in the Lake Victoria region". American Political Science Association Annual Meeting, San Francisco, CA.

**Hamilton, M.**, E. Namaganda, M. Lubell. 2015. "Policy networks and climate change adaptation in the Lake Victoria Basin: a multi-scale perspective". Political Networks, Portland, OR.

## OUTREACH PUBLICATIONS

2021. Pham, T. T., **M. Hamilton**, C. Gallemore. "Preliminary results of assessments on the impacts of Payments for Forest Environmental Services (PFES) on forest networks and governance, household income and forest loss in Vietnam." CFOR Info Brief. No. 325. doi:10.17528/cifor/007998

2019. **Hamilton, M.**, J. Salerno, A. P. Fischer. "Using mental models to understand trade-offs in wildfire risk mitigation." Research Brief. Available at http://www.nwfirescience.org/biblio/using-mental-models-understand-trade-offs-wildfire-risk-mitigation.

# OUTREACH PRESENTATIONS

2022. Courtney, K., **M. Hamilton**. "Community wildfire protection planning: Learning and collective action at multiple scales." Community Wildfire Mitigation Best Practices Course (virtual presentation).

2021. **Hamilton, M.** "Vietnam's PFES and the evolution of national forest governance networks." Networks, Livelihoods, and National Forest Governance in Vietnam (virtual presentation).

2021. **Hamilton, M.** "Social-ecological interdependence in forest governance systems: Application of network analysis tools and perspectives." Sustainable forest management and land use change - Lessons learnt from US and Vietnam (virtual presentation).

2020. **Hamilton, M.** "Network and spatial analysis for forest governance." International workshop: Enhancing wetland management and sustainable development (virtual presentation).

2019. **Hamilton, M.** "Network analysis in environmental social science." AESS-IASNR-SCB SSWG Methods I Webinar (virtual presentation).

# INSTRUCTION EXPERIENCE

*The Ohio State University:* 

ENR 4450: Climate Change Policy

2020 2022, 2020 2019, 2021

ENR 7425: Collective Action in Environmental Governance ENR 3200: Environmental and Natural Resources Policy

2018, 2019, 2020, 2021

ENR 4900.01: Capstone Experience

*University of California, Davis:* ANT 103: People and Conservation

103: People and Conservation 2015

### OTHER TEACHING EXPERIENCE

NASA and USAID-funded MyCOE-SERVIR training workshops

2012 - 2014

 ${\it Co-organizer\ and\ co-instructor\ for\ four\ workshops\ for\ university\ students,\ including:}$ 

- Climate Change, Landscape and Watersheds in SE Asia (Bangkok, Thailand)
- Women in Climate Change and Food Security in West Africa (Accra, Ghana)
- Climate Change in Mountain Area Regions (Kathmandu, Nepal)
- Climate Change, Agriculture and Food Security in East Africa (Nairobi, Kenya)

### ADVISING/ MENTORING

Chair/Co-chair:

PhD: Prabhjot Singh (2022-present)

PhD: Harrison Fried (2021-present; co-advisor with Ramiro Berardo)

PhD: Kimberly Ordonez (2020-present) MS: Jordan Inskeep (2022-present)

MS: Monika Moreu Vicente (2022-present; co-advisor with G. Matt Davies)

MS: Lisa Shahin (2020-2022)

MS: Harrison Fried (2019-2021; co-advisor with Ramiro Berardo)

### Committee member:

Andrew Bahrou (PhD; 2020-present); Dax Fisher-Garibay (PhD; 2022-present); Claire Rapp (PhD; 2019-2022); Federico Holm (PhD; 2019-2021); Madison Anderson (MS; 2020-2021); Maggie Beetstra (PhD; 2019-2020); Matthew Dowiatt (MS; 2019-2020); Alfian Alfian (MS; 2019-2020); Austin Miles (MS; 2019-2020); Ken Poland (MS; 2018-2019)

#### *Undergraduate advising:*

Hallie Stelzle (2021-present); Jordan Inskeep (2021-2022); Emily Palsa (2020-2021); Jennifer Prewitt (2019-2020), Emily Gedeon (2019-2020); Jayson Velazquez (2019-2020); Dauren Mason (2019-2020); Liz Vukovic (2018-2019); Anna Haught (2018-2019)

# SERVICE TO THE PROFESSION

Human Dimensions of Global Change Specialty Group of the American Association of Geographers

2022-present (chair); 2020-2022 (vice chair); 2019-2020 (board)

*Ad-hoc proposal reviewer:* 

NSF Human-Environment and Geographical Sciences

NSF Decision, Risk and Management Sciences

UK Natural Environment Research Council

Ad-hoc paper reviewer:

Climatic Change Landscape Ecology

Conservation Biology Mit. and Adaptation Strategies for Global Change

Current Opinion in Environmental Sustainability Nature Communications Ecology & Society Nature Human Behaviour

**Ecological Applications** One Earth

People and Nature **Ecological Complexity** PLoS ONE Fire

Forests, Trees and Livelihoods Policy Sciences Global Environmental Change Policy Studies Journal

Governance Regional Environmental Change

International Forestry Review Risk Analysis

International Journal of Disaster Risk Reduction Society & Natural Resources Journal of Planning Literature Sustainability Science

Land Use Policy The Canadian Geographer

Land Use Science Wiley Interdisciplinary Reviews: Water

UNIVERSITY **SERVICE** 

SENR Fellowship Committee

EIS-Africa, Pretoria, South Africa

2022 (chair); 2021 (member)

2010-2016

2011-2013

CFAES Internal Grants Program Competition Review Committee 2022 (member)

**CFAES Annual Poster Competition** 2021 (reviewer)

Sustainability Institute Student Grants program 2022, 2020 (reviewer)

Alpha Zeta Partners Leadership Honorary 2020-present (co-advisor)

PROFESSIONAL **EXPERIENCE** 

Center for Environmental Policy and Behavior, Davis, CA

Graduate Student Researcher: statistical analysis of environmental decision-making

Visiting Research Associate: spatial data infrastructure for environmental decision-making in

East Africa

iLiNS Project, Davis, CA

2010-2013 Graduate Student Researcher: spatial modeling of nutrition policy outcomes in Burkina Faso

Global Water Initiative, El Salvador, Guatemala, Nicaragua, Honduras 2009-2010

Graduate Research Consultant: participatory GIS for water resource management

American Association of Geographers, Washington, D.C. 2008-2009

Coordinator, Developing Regions Program

Peace Corps, Caazapa, Paraguay 2005-2007

Agricultural Extension Volunteer

PROFESSIONAL American Association of Geographers **AFFILIATIONS** American Political Science Association

International Network for Social Network Analysis