

**Rachel E. Schattman**

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[Research website](#) | [Research Gate Profile](#) | [Google Scholar Profile](#)

**EDUCATION**

University of Vermont	Agroecology	Ph.D.	2016
University of Vermont	Natural Resources	M.S.	2009
Sarah Lawrence College	Environmental Studies	B.A.	2004

**PROFESSIONAL EXPERIENCE**

2020 - present	University of Maine School of Food and Agriculture	Assistant Professor of Sustainable Agriculture
2016 - 2019	United States Department of Agriculture, Northeast Climate Hub	Postdoctoral Research Fellow
2018 - 2019	University of Vermont Extension, Vegetable and Berry Program	Affiliate
2009 - 2019	Bella Farm, LLC	Owner, manager
2017 - 2018	University of Vermont Extension	Research specialist
2015 - 2016	University of Vermont Agroecology and Livelihoods Collaborative	Research Specialist
2009 - 2012	University of Vermont Extension, Center for Sustainable Agriculture	Outreach Specialist
2008 - 2009	University of Vermont, Writing in the Disciplines Program	Graduate Research Assistant
2008 - 2007	University of Vermont, Rubenstein School of Environment and Natural Resources	Graduate Teaching Assistant
2005 - 2006	The People's Institute for Re-envisioning Education and Development, Udaipur, Rajasthan, India	Employee, Art Festival Organizer

**UNIVERSITY TEACHING EXPERIENCE**

The Vermont Food System (3 credits)	University of Vermont - Environmental Studies Dept.	2009, 2010, 2012
Organic Farm Planning (3 credits)	University of Vermont - Plant and Soil Sciences Dept.	2016

**CURRICULUM DEVELOPMENT**

The Climate Adaptation Fellowship Vegetable and Small Fruit Module	Target audience: Farmers and agricultural advisors	2019
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Farming in the Floodplain	Target audience: Graduate students	2016
Around the Table with Local Food	Target audience: Parents of young children	2012

**GUEST LECTURES (selected)**

- Plant and Soil Science Graduate Seminar, UVM (2019)
- Plant and Soil Science Graduate Professional Skills Colloquium, UVM (2018)
- Ecological Agriculture, UVM (2017)
- Advanced Agroecology, UVM (2014, 2015, 2017)
- Organic Farm Planning, UVM (2015)
- Farm to Table, UVM (2016)
- Applied Research Methods, UVM (2015)
- Geography 0200, Middlebury College (2012)
- Agricultural Policy and Ethics, UVM (2010, 2011)

**STUDENT MENTORING AT THE UNIVERSITY OF VERMONT**

\* *Committee Chair*

\*\* *Primary or co-advisor*

Rebecca Maden	M.S. in Plant and Soil Sciences	2020	Cover crops and nitrogen availability in northeastern vegetable systems
Tessa McGann**	M.S. Natural Resources	2022	Adaptation and Restoration of Northern Forests
Susannah Walsh Daloz*	M.S. Food Systems	2018	Climate change adaptation for farmers: A collaborative curriculum design project
Annie Fitzgerald	B.A. Environmental Studies Honors Thesis	2016	Massachusetts farmers and climate change
Hannah Link	B.A. Environmental Studies Honors Thesis	2014	Spotted wing drosophila exclusion netting for organic blueberries: Trellis design for Vermont farmers
Sarah Alexander	B.A. Environmental Studies Thesis	2013	Female farmers and sustainable agriculture in Vermont: A qualitative inquiry and ethnographic analysis
Brienne Tommey	B.A. Environmental Studies Honors Thesis*	2012	Digging up the dirt on community gardening: Exposing the barriers and challenges of shared urban garden plots
Melissa Cameron	B.A. Environmental Studies Thesis	2011	An assessment of UVM’s native produce

**EXTERNAL FUNDING**

*Total funding generated as lead principal investigator = \$252,000*

2019 - 2020	United States Department of Agriculture, NIFA Bioenergy, Natural Resources, and Environment (BNRE) program area. <i>Whole farm water: Improving water use efficiency in Northeast specialty crop operations</i>	\$49,000
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2019 - 2021	Northeast Sustainable Agriculture Research and Education (NE SARE) Research for Novel Approaches (USDA). <i>Turn the tap: Integrated research to support sustainable irrigation practices on northeast vegetable farms</i>	\$125,000
2017 - 2018	UVM College of Agriculture and Life Sciences/Extension Seed Grant. <i>Whole Farm Water Policy Review Project</i>	\$5,000
2017 - 2018	Northeast Center for Advancement of Food Safety (FDA). <i>UVM Food Safety Website Development Project</i>	\$12,000
2014	Local Food Market Development Grant Program (Vermont Agency of Agriculture, Food and Markets). <i>Improvement of local food delivery to Vermont institutions</i>	\$5,000
2013 - 2014	Specialty Crop Block Grant Program (Vermont Agency of Agriculture, Food and Markets, USDA). <i>Spotted Wing Drosophila Exclusion Netting Study for Vermont Blueberries</i>	\$17,000
2013 - 2014	Northeast Sustainable Agriculture Research and Education (NE SARE) Graduate Student Grant (USDA). <i>Spotted Wing Drosophila Exclusion Netting Study for Vermont Blueberries</i> [awarded but declined]	\$14,000
2014	Annie's Homegrown Sustainable Agriculture Scholarship	\$2,500
2011 - 2013	Specialty Crop Block Grant Program (Vermont Agency of Agriculture, Food and Markets, USDA). <i>Growing a Community that Feeds Itself</i>	\$20,000
2008 - 2009	Vermont Sustainable Agriculture Council Research Grant. <i>Indicators of Sustainability in the Vermont-Regional Food System</i>	\$2,500
 <i>Total funding generated as <b>co-PI</b>, in which I contributed significantly to proposal development = \$2,131,900</i>		
2019 - 2023	McIntire Stennis Forestry Research Program. <i>Adaptation and Restoration of Northern Forests: Collaborative Management of Forests at Risk across the Urban to Rural Gradient</i> (Lead PI: Dr. Antony D'Amato)	\$1,383,000
2017 - 2019	Agriculture and Food Research Initiative (USDA-NIFA). <i>Assessing Climate Perceptions and Developing Adaptation Resources for Small, Medium, and Beginning Farmers</i> (Lead PI: Dr. Meredith Niles)	\$500,000
2017 - 2018	Agriculture and Food Research Initiative (USDA-NIFA) <i>The Climate Adaptation Fellowship: A Collaborative Curriculum Design Project</i> (Lead PI: Dr. Joshua Faulkner)	\$248,900
 <i>Total funding generated as <b>key personnel</b>, in which I contributed significantly to proposal development = \$167,000</i>		
2015 - 2018	UVM Agricultural Research Competitive Hatch Award (USDA). <i>Vermont Agriculture in a Changing Climate: Towards a Resilient Farmer Typology</i> (PI: V. Ernesto Méndez)	\$45,000
2012 - 2013	UVM Extension Competitive Grant Round. <i>The new American farmer: Technical skills for vegetable growers pilot program</i> (PI: Dr. Linda Berlin) [Awarded, but left position before project started]	\$51,000
2009 - 2011	UVM Extension Competitive Grant Round. <i>Around the table with local food pilot Program</i> (PI: Dr. Linda Berlin)	\$71,000

**PEER REVIEWED PUBLICATIONS (published, forthcoming or accepted)**

*N = 13, 62% as lead author, 38% as supporting author*

- Wiener, S., Roesch-McNally, G., **Schattman**, R. E., and Niles, M. T. (forthcoming). Ready, willing, and able? USDA field staff as climate advisors. *The Journal of Soil and Water Conservation*.
- Schattman**, R. E., Hurley, S., Greenleaf, H., Niles, M. T., & Caswell, M. (2019). Visualizing climate change adaptation: An effective tool for agricultural outreach? *Weather, Climate, and Society*. DOI: 10.1175/WCAS-D-19-0049.1
- Schattman**, R. E., Kaplan, M., Aitken, H. A., & Helminski, J. (2019). Climate change curricula for adult audience in agriculture and forestry: A review. *The Journal of Adult and Continuing Education*. 25(1): 131-151. DOI: <https://doi.org/10.1177/1477971419840670>
- Schattman**, R. E., Hurley, S., & Caswell, M. (2019). Now I see: Photovisualization to support agricultural climate adaptation. *Society and Natural Resources*. 32(2): 222-228. DOI: <https://doi.org/10.1080/08941920.2018.1530819>
- Niles, M. T., Wiener, S., **Schattman**, R. E., Roesch-McNally, G., and Reyes, J. (2019). Seeing isn't always believing: Crop loss and climate change perceptions among farm advisors. *Environmental Research Letters* 14 (4). DOI: 10.1088/1748-9326/aafbb6
- Benkeblia, N., **Schattman**, R.E., Wiener, S. & Roesch-McNally, G. (2018). Climate change and crop production: Set the stage for resilience, in N. Benkeblia (Ed.), *Climate change and crop production: Foundations for agroecosystem resilience*. (pp. 1-23). Boca Raton, FL: CRC Press/Taylor & Francis.
- Schattman**, R. E., Roesch-McNally, G., Wiener, S., Niles, M., & Hollinger, D. Y. (2018). The influence of perceived risk, experiences with loss and disaster, and climate belief on use of weather and climate information in FSA services. *Renewable Agriculture and Food Systems*. <https://doi.org/10.1017/S1742170517000783>
- Warner, B. P., **Schattman**, R. E., & Hatch, C. (2017). Farming the floodplain: Ecological and agricultural tradeoffs and opportunities in river and stream governance in New England's changing climate. In *Case Studies in the Environment*. DOI: 10.1525/cse.2017.sc.512407
- Schattman**, R., Méndez, V. E., Merrill, S. C., & Zia, A. (2017). Climate change best management practices: Evaluation of attributes by agricultural producer and technical service providers. *Agroecology and Sustainable Food Systems*, 42(2): 121-148. DOI 10.1080/21683565.2017.1357667
- Schattman**, R., Connor, D., & Méndez, V. E. (2016). Farmer perceptions of risk in the Northeastern United States. *Elementa: Journal of the Anthropocene*. Special Forum on Sustainability Agroecological Systems. DOI 10.12952/journal.elementa.000131.
- Fernandez, M., Méndez, V. E., Mares, T. & **Schattman**, R. (2016). Agroecology and alternative agrifood movements in the United States: Towards a sustainable agrifood system, in V. E. Méndez, C. Bacon, R. Cohen, & S. Gliessman (Eds.), *Agroecology: A transdisciplinary, participatory and action oriented approach*. (pp. 161-172). Boca Raton, FL: CRC Press/Taylor & Francis.
- Schattman**, R., Berlin, L., Boschner, F., & Lawrence, M. (2015). Farmers' engagement with community food insecurity: Approaches, perspectives, and implications for Extension. *Journal of Extension*. 53(4): 4FEA2.
- Schattman**, R., Méndez, V. E., Westdijk, K., Caswell, M., Conner, D., Koliba, C., Zia, A., Hurley, S., Adair, E. C., Berlin, L., & Darby, H. (2014). Vermont agricultural resilience in a changing climate: A transdisciplinary and participatory action research (PAR) process, in N. Benkeblia (Ed.) *Agroecology, ecosystems and sustainability*. (pp. 326-343). Boca Raton, FL: CRC Press/Taylor & Francis.
- Berlin, L., **Schattman**, R., Hamilton, J. (2012). Working towards the common table: The policy and program implications of Vermont's unified approach to social justice, food insecurity and local food. *The Journal of Hunger and Environmental Nutrition*, 7(2-3).

### PEER REVIEWED PUBLICATIONS (in progress)

- Schattman**, R. E., Caswell, M. J., & Faulkner, J. W. (in revision). Eyes on the horizon: Temporal perspectives of climate risk and agricultural decision making.
- Merrill, S. & **Schattman**, R. E. (in revision). Corn flea beetle (*Chaetocenma pulicaria*), *Pantoea stewartii* bacterium, and Stewart's Wilt in corn: Shifts in geographic vulnerability of U.S. corn crops under different climate change scenarios.
- Zia, A., Doran, E., Hurley, S., Tsai, Y., Koliba, C., Adair, C., **Schattman**, R. E., Mendez, V. E., & Rizzo, D. (in revision). Social psychological determinants of farmer intentions to adopt nutrient management practices: Implications for resilient adaptation to climate change in the Lake Champlain Basin.

### OTHER RESEARCH PUBLICATIONS AND REPORTS

- Schattman**, R. E., & Faulkner, J. W. (2019). How much is enough? Dialing in irrigation on Northeast vegetable farms. [Research brief](#) published by the USDA NE Climate Hub. Durham, NH.
- Wiener, S., Roesch-McNally, G., & **Schattman**, R. E. (2018). National survey of USDA field staff on climate and weather: Results from a survey of Natural Resources Conservation Service and Farm Service Agency Employees. Washington D.C.: USDA Climate Hubs. [Link](#).
- Schattman**, R. E. (2017). Agroecology in Africa: Focus on soil stewardship in Senegal. Guest blogpost, Winrock International. [Link](#).
- Warner, B. & **Schattman**, R. E. (2017). Farming in the floodplain: Overcoming tradeoffs to achieve good river governance in New England. Case study published by the National Socio-Environmental Synthesis Center (SESYC), Bethesda, MD. [PDF](#).
- Schattman**, R. E. (2017). Clovercrest Farm: A family dairy in Charleston, Maine. Case study published by the USDA NE Climate Hub. Durham, NH.
- Schattman**, R. E. (2016). Vermont agricultural resilience in a changing climate: An investigation of farmer perceptions of climate change risk and adaptation. Dissertation presented to the Graduate College of the University of Vermont
- Schattman**, R. E., Izzo, V., & Chen, Y. F. (2015). Exclusion netting for managing spotted wing drosophila on berry farms in the northeastern United States. Agroecology and Rural Livelihoods Group Research Brief # 3: University of Vermont.
- Schattman**, R. E., Aitken, H. M., Méndez, V. E. & Caswell, M. (2014). Climate change resilience on Vermont farms: A research report for service providers. Agroecology and Rural Livelihoods Group Research Brief # 2: University of Vermont.
- Schattman**, R. & Méndez, V. E. (2012). Vermont farm resilience in a changing climate: A survey of agricultural service providers. Agroecology and Rural Livelihoods Group Research Brief # 1: University of Vermont.
- Berlin, L., Hamilton, J., & **Schattman**, R. (2011). Working towards the common table: How Vermont addresses social justice and food access with local food and why it matters. *Opportunities for Agriculture White Paper Series*. Food System Research Collaborative, University of Vermont.
- Schattman**, R., Nickerson, V., & Berlin, L. (2010) Dissolving the doublebind: Strategies for expanding food access and developing Vermont's local food system. Report prepared for the Farm to Plate Project, Vermont Sustainable Jobs Fund. Updated by R. **Schattman** and S. Sawyer in 2014.
- Schattman**, R. & Cannella, M. (2008). Maintaining farm identity through alternative marketing practices. Report prepared for the Intervale Center.
- Schattman**, R. E. (2009). Sustainability indicators in the Vermont-regional food system. Master's thesis presented to the Graduate College of the University of Vermont
- Schattman**, R. (2008). Sustainable food sourcing and distribution in the Vermont-regional food system. Report prepared for the Sustainable Agriculture Council.

**PROFESSIONAL SERVICE AND RELATED ACTIVITIES**

2019 - present	Editorial Board Member	Society and Natural Resources (SNR)
2018 - present	Affiliate	Gund Institute for Ecological Economics
2017	Volunteer Educator	Winrock International Farmer to Farmer Program, Senegal
2013 - 2016	Committee Member	Agricultural and Natural Area Committee (ANAC) of Monkton, Vermont
2011 - 2015	Council Member	University of Vermont Farmer Training Program
2008 - 2009	Steering Committee Member	Burlington Farmers' Market
2012 - 2014	Board Member	Rural Vermont
2008 - 2009	Committee Member	University of Vermont Socially Responsible Investment Workgroup (SRI)
2008	Volunteer	Association of Africans Living in Vermont, New Farms for New Americans Program

**JOURNAL GUEST REVIEWING (selected)**

- Climatic Change (2019)
- Journal of Rural Studies (2019)
- Water (2019)
- Society and Natural Resources (2019)
- Climate (2019)
- Agronomy (2018)
- Sustainability (2018)
- Agricultural and Human Values (2016, 2017)
- Climate Risk Management (2017)

**ADDITIONAL TRAINING AND PROFESSIONAL DEVELOPMENT**

2018 - 2019	Soil as a Social-Ecological Feedback	The National Socio-environmental Synthesis Center (SESYNC)
2018	Summer Institute on Cyberinfrastructure	The National Socio-environmental Synthesis Center (SESYNC)
2016	Teaching Socio-environmental Synthesis with Case Studies	The National Socio-environmental Synthesis Center (SESYNC)
2012	Supervising Today's Student Employees	University of Vermont Human Resources
2010	Facilitative Leadership: Tapping the Power of Participation	Interaction Associates
2010	Field Guide to Evaluation Short Course	Community Food Security Coalition
2009 - 2014, 2018	Extension Professional Improvement Conference (EPIC)	University of Vermont Extension

## PROFESSIONAL ASSOCIATIONS

	<i>Member since</i>
Association for Environmental Studies and Sciences	2018
Soil and Water Conservation Society	2017
Agriculture, Food and Human Values Society	2016
International Association for Society and Natural Resources	2016
Northeast Organic Farming Association of Vermont	2007
Vermont Vegetable and Berry Growers Association	2009

## PRESENTATIONS

- Basche A., Tully K., Brown T., Moore Kucera J., Lengnick L., Bowman M., Alvarez-Berrios N., Gailans S., Arbuckle J., Reyes J., **Schattman R.**, Seamon E., Roesch-McNally G. (2019) *Stimulating soil health: What we know about environmental outcomes and the EQIP conservation program*. Agronomy-Crop Science Societies of America Annual Conference, San Antonio TX
- Merrill, S. C., Trinity, L., **Schattman, R.**, Clark, E., Koliba, C., Zia, A., Bucini, G., Faulkner, J. & Smith, J. (2019) Serious games: Agriculture, Climate Change and Water Quality. Workshop for the Basin Resilience to Extreme Events High School Students and Teachers Training Week, June 18, 2019, Colchester, VT
- Schattman, R. E.**, Caswell, M. J., & Faulkner, J. W. (2019). *Eyes on the horizon: Temporal perspectives of climate risk and agricultural decision making*. The International Symposium of Society and Natural Resources (ISSNR), Oshkosh WI
- Schattman, R. E.**, Lane, E. D., & Faulkner, J. W. (2019). *The Climate Adaptation Fellowship: Co-production in outreach and curriculum development*. Part of the *Co-production in action: building collaborative capacity for adaptation in natural resources management* working group (**Schattman**, co-organizer). 2019 National Adaptation Forum, Madison WI
- Schattman, R. E.**, & Faulkner, J. W. (2018). *Whole farm water: Collaborative science for farm irrigation decisions in vegetable production systems* (abstract 352915). 2018 Fall Meeting of the American Geophysical Union, Washington, D.C.
- Schattman, R. E.**, & Faulkner, J. W. (2018). *Who needs irrigation in the Northeast?* USDA Northeast Climate Hub (Webinar) [Archived](#) in the USDA Science and Technology Training Library
- Schattman, R. E.** (2018). *Whole farm water: availability, access, and quality on vegetable farms*. Vermont Vegetable and Berry Growers Association annual meeting, Fairlee, VT
- Schattman, R. E.** (2017). *The potential influence of climate change on produce safety*. Cross Border Workshop on Adaptation to Climate Change: Information and Tools for Decision Making. Hosted by the USDA Northeast Climate Hub, the Cornell University Institute for Climate Smart Solutions, and Agriculture and Agrifood Canada. Syracuse, NY
- Schattman, R. E.**, Wiener, S., & Roesch McNally, G. (2017). *Climate change beliefs, risk perceptions, and use of climate and weather tools: reporting evidence from a national FSA and NRCS employee survey*. Soil and Water Conservation Society Annual Conference, Madison, WI
- Barbieri, L, Weber, N., & Virapongse, A. (2017). *Informatics in social-environmental systems*. Federation of Earth Science Partners (ESIP) Winter Meeting, North Bethesda, MD. (**Schattman, R.**, guest presenter as part of a panel session.)
- Schattman, R.** & Faulkner, J. W. (2016). *Communication navigation: Talking about climate change with farmers and landowners in the Northeast*. ANREP/ NACDEP joint annual conference, Burlington VT
- Schattman, R.** (2016). *Socio-psychological perspectives on climate change risk management in agriculture*. USDA Northeast Climate Hub Mitigation Workshop, Beltsville, MD

- Schattman, R. & Conner, D. (2016).** *Best management practices for on-farm climate change resilience in the northeast: Social, ecological and economic implications.* USDA Northeast Climate Hub (webinar)
- Schattman, R. (2015).** *Exclusion netting for organic management of Spotted Wing Drosophila in organic blueberries and raspberries.* Vermont Vegetable and Berry Growers Association annual meeting, Lake Morey Resort, Fairlee VT
- Schattman, R., Izzo, V., Hausmann, A., & Link, H. L. (2015).** *Exclusion netting for organic management of Spotted Wing Drosophila in organic blueberries and raspberries.* Northeast Organic Farming Association of Vermont Winter Conference, University of Vermont, Burlington VT
- Schattman, R., Achilich, K., & Berlin, L. (2014).** *Who deserves food assistance? Food Insecurity, multi-stakeholder approaches to food system development and perceptions of deservedness in Vermont.* The Association for the Study of Food and Society (ASFS) and The Agriculture, Food and Human Values Society (AFHVS) annual conference, Burlington VT.
- Schattman, R., Grubinger, V., Maden, R. & Adair, E. C. (2013).** *Agricultural resilience in a changing climate.* The Northeastern Organic Farming Association of Vermont Winter Conference, Burlington, VT
- Buckwalter, E., & Schattman, R. (2013).** *Farmer strategies for serving limited income customers.* The Northeastern Organic Farming Association of Vermont Winter Conference, Burlington, VT
- Schattman, R. (2009).** *Collaborative marketing: An overview of existing models.* The Stone Barn Center for Sustainable Agriculture. Young Farmers Conference NY

#### **POSTER PRESENTATIONS**

- Schattman, R.E., Wiener, S., Roesch-McNally, G., Niles, M. T., Parmentier, B., Champion, S. M., & Cobb, J. (2018).** *Socio-environmental synthesis: Exploring the relationship between climate events, agricultural crop loss, and climate/weather perceptions of USDA employees* (abstract 344725). Presented at 2018 Fall Meeting, AGU, Washington, D.C., 10-14 Dec.
- Schattman, R. (2014).** *Agricultural resilience in a changing climate: A transdisciplinary approach to on-farm adaptation and mitigation.* Local solutions: Northeast climate change preparedness conference. Co-hosted by Antioch College and the U.S. Environmental Protection Agency, Manchester, NH [Poster received honorable mention]
- Schattman, R. & Achilich, K. (2013).** *A food systems approach to improving food security in Vermont.* The 2013 Future of Food and Nutrition Conference. The Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy, Tufts University. Boston, MA
- Schattman, R., Méndez, V.E., Westdjik, K., & Caswell, M. (2013).** *Vermont agricultural resilience in a changing climate.* The Northeastern Organic Farming Association of Vermont Winter Conference, Burlington, VT