

Sarah E. Castle

Curriculum Vitae

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Department of Forest and Wildlife Ecology
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Education

Ph.D. University of Illinois Urbana-Champaign, August 2024
Department of Natural Resources and Environmental Sciences (NRES)

M.S. University of Illinois Urbana-Champaign, August 2019
Department of Natural Resources and Environmental Sciences

B.S. University of Texas at Austin, December 2012
Department of Aerospace Engineering

Appointments

2025 – Present **Assistant Professor, University of Wisconsin-Madison**
Department of Forest and Wildlife Ecology

2024 – 2025 **Postdoctoral Associate, Yale University**
Yale School of the Environment

2025 – 2025 **Industry Fellow, Yale Center for Natural Carbon Capture, Yale University**
Yale School of the Environment

2017 – 2024 **Graduate Research Assistant, University of Illinois Urbana-Champaign**
Department of Natural Resources and Environmental Sciences

2021 **Geospatial Analysis Consultant, UN Food and Agriculture Organization**
Forestry Division

Awards and Fellowships

Fellowships and Grants:

2024 NRES Educational Opportunity Travel Award (\$160)

2024 Agriculture, Food & Human Values Society (AFHVS) Conference mini-grant (\$300)

2023 Graduate College Dissertation Completion Fellowship, University of Illinois at Urbana-Champaign (UIUC) (\$25,000)

2023 Graduate College Conference Travel Grant, UIUC (\$330)

2022 North Central Region Sustainable Agriculture Research and Education (NCR-SARE) Graduate Student Grant (\$14,938)

2022 “Flip the Script” grant, “Building Knowledge of the Relationship Between Forests and Poverty: A Proof of Concept for a Global Study,” University of Notre Dame (\$15,000; Lead Research Assistant)

2022 Graduate College Conference Travel Grant, UIUC (\$350)

2019	Travel Grant for Conference Presentation, 4 th World Congress on Agroforestry, granted by the conference's organizing and scientific committees (€1090)
2019	Graduate College Conference Travel Grant and NRES Travel Grant, UIUC (\$400)
2018-2019	Agroecology and Sustainable Agriculture Program Fellowship, UIUC (\$12,500)
2017-2018	Jonathan Baldwin Turner (GBT) Graduate Fellowship, UIUC (\$25,000)

Awards:

2024	Louis V. Logeman Graduate Student Teaching Award Recipient
2023	Included on the “List of Teachers Ranked as Excellent by Their Students” – Spring 2023 (NRES 325: Natural Resource Policy and Management, TA)
2021	Included on the “List of Teachers Ranked as Excellent by Their Students” – Spring 2021 (NRES 325: Natural Resource Policy and Management, TA)
2020	Included on the “List of Teachers Ranked as Excellent by Their Students” with the highest rating (“outstanding”) – Spring 2020 (NRES 325, TA)

Publications (Publications prior to 2021 appear under the name Sarah Brown.)

Journal articles

1. **Castle, S. E.**, Miller, D. C., & Wardrop, C. B. (2025). Mapping the social-ecological suitability of agroforestry in the US Midwest. *Environmental Research Letters*, 20(2), 024041. <https://doi.org/10.1088/1748-9326/adab09>
2. **Castle, S. E.**, Miller, D. C., Merten, N., Ordonez, P. J., & Baylis, K. (2022). Evidence for the impacts of agroforestry on ecosystem services and human well-being in high-income countries: a systematic map. *Environmental Evidence*, 11(1), 1-27. <https://doi.org/10.1186/s13750-022-00260-4>
3. Hajjar, R., Newton, P., Ihlainen, M., Agrawal, A., Alix-Garcia, J., **Castle, S. E.**, Erbaugh, J. T., Gabay, M., Hughes, K., Mawutor, S., Pacheco, P., Schoneveld, G., & Timko, J. A. (2021). Levers for alleviating poverty in forests. *Forest Policy and Economics*, 132, 102589. <https://doi.org/10.1016/j.forpol.2021.102589>
4. Razafindrantsima, O. H., Kamoto, J. F. M., Sills, E. O., Mutta, D. N., Song, C., Kabwe, G., **Castle, S. E.**, Kristjanson, P. M., Ryan, C. M., Brockhaus, M. & Sunderland, T. (2021). Reviewing the evidence on the roles of forests and tree-based systems in poverty dynamics. *Forest Policy and Economics*, 131, 102576. <https://doi.org/10.1016/j.forpol.2021.102576>
5. **Castle, S.E.**, Miller, D.C., Ordonez, P.J., Baylis, K., & Hughes, K. (2021). The Impacts of Agroforestry Interventions on Agricultural Productivity, Ecosystem Services, and Human Well-Being in Low- and Middle-Income Countries: A Systematic Review. *Campbell Systematic Reviews*, 17(2), e1167. <https://doi.org/10.1002/cl2.1167>
6. Miller, D.C., Ordonez, P.J., **Brown, S.E.**, Forrest, S., Nava, N.J., Hughes, K., & Baylis, K. (2020). The Impacts of Agroforestry on Agricultural Productivity, Ecosystem Services, and Human Well-Being in Low- and Middle-Income Countries: An Evidence and Gap Map. *Campbell Systematic Reviews*, 16, e1066. <https://doi.org/10.1002/cl2.1066>
7. **Brown S.E.**, Miller D.C., Ordonez P.J., & Baylis K. (2018). Evidence for the Impacts of Agroforestry on Agricultural Productivity, Ecosystem Services, and Human Well-Being in High-Income Countries: A Systematic Map Protocol. *Environmental Evidence*, 7(24), 1-16. <https://doi.org/10.1186/s13750-018-0136-0>

Book chapters, working papers, and other publications:

1. Amadu, F., **Castle, S. E.**, Munien, S., Jackson, B. A., Reycraft, K., Mays, T., Walker, R. N., Stanton, J., & Corfee-Morlot, J. (2024). Understanding the Impacts of Climate Smart Agriculture on Climate Policy Outcomes in Low- and Middle-Income Countries: An Evidence and Gap Map Protocol. PROCEED-24-00285. <https://doi.org/10.57808/proceed.2024.32>
2. Ge, X., **Brown, S. E.**, Rana, P., Varshney, L. R., & Miller, D. C. (2023). Network Analysis as a Tool for Shaping Conservation and Development Policy: A Case Study of Timber Market Optimization in India. *arXiv preprint arXiv:2304.13907*.
3. Newton, P., **Castle, S. E.**, Kinzer, A. T., Miller, D. C., Oldekop, J. A., Linhares-Juvenal, T., Pina, L., Madrid, M. & de Lamio Rodriguez, J. (2022). The number of forest- and tree-proximate people – A new methodology and global estimates. Forestry Working Paper No. 34. Rome, FAO. <http://www.fao.org/documents/card/en/c/2544en>
4. FAO. (2022). The State of the World's Forests 2022. Forest pathways for green recovery and building inclusive, resilient and sustainable economies. Rome, FAO. <https://doi.org/10.4060/cb9360en> (**Castle, S.E.** contributing author to Chapter 2).
5. Hajjar, R., Newton, P., Ihlainen, M., Agrawal, A., Gabay, M., Alix-Garcia, J., **Brown, S. E.**, Erbaugh, J. T., Hughes, K., Mawutor, S., Pacheco, P., Schoneveld, G., Song, C., & Timko, J. (2020). Levers for Alleviating Poverty in Forests and Tree-Based Systems. In D. C. Miller, S. Mansourian, & C. Wildburger (Eds.), *Forests, Trees and the Eradication of Poverty: Potential and Limitations. A Global Assessment Report* (Vol. IUFRO World Series Volume 39, pp. 125-176). Vienna: International Union of Forest Research Organizations (IUFRO).
6. Razafindratsima, O. H., Kamoto, J., Sills, E. O., Mutta, D. N., Song, C., Sunderland, T., Kabwe, G., Ryan, C., **Brown, S. E.**, Kristjanson, P. M., Brockhaus, M., Logo, P. B., Mihigo, B.-P. N., Ongolo, S., Xiao, J., & Zhao, Y. (2020). Forest-Poverty Dynamics: Current State of Knowledge. In D. C. Miller, S. Mansourian, & C. Wildburger (Eds.), *Forests, Trees and the Eradication of Poverty: Potential and Limitations. A Global Assessment Report* (Vol. IUFRO World Series Volume 39, pp. 55-94). Vienna: International Union of Forest Research Organizations (IUFRO).
7. Chaput, A., Kulkarni, T., **Brown, S.**, Eboh, J., Galvan, J., & Haeker, A. (2013). Vehicle Sketch Pad Structural Analysis Module Capability Update. *AIAA- 2013-0223*, 2013, 51st AIAA Aerospace Sciences Meeting, Grapevine, Texas. <https://doi.org/10.2514/6.2013-223>

Submitted manuscripts and works in progress:

1. **Castle, S. E.**, Oldekop, J. A., Newton, P., Baylis, K., & Miller, D. C. (*under review*). Global forest cover dataset incongruence creates high uncertainties for sustainability science. *One Earth*.
2. **Castle, S. E.**, Ramirez, A., Miller, D. C., Wardropper, C. (*under review*). Agroforestry for the Midwest: Developing a Social-Ecological Suitability Decision Support Tool. *Journal of Extension*.
3. **Castle, S. E.**, Ramirez, A., Miller, D. C., Wardropper, C. (*in prep*). Exploring the role of nature values in agroforestry adoption decision-making. *Target journal: Ecosystem Services*.
4. **Castle, S. E.**, Ramirez, A., Miller, D. C., Wardropper, C. (*in prep*). Agroforestry transitions: opportunities and barriers to agroforestry adoption in Illinois. *Target journal: Land Use Policy*.
5. **Castle, S. E.**, Alencar, L., Baylis, K., Costa, L., Kinzer, A., Nakamura, K., Newton, P., Oldekop, J. A., Sanford, L., Tripathy, P., and Miller, D. C. (*in prep*). Identifying spatial priorities to jointly address forest conservation and poverty agendas. *Target journal: Nature Sustainability*.

6. Farrae, M., **Castle, S. E.**, Miller, D. C. (*in prep*). Mapping the spatial relationship between forests and poverty in Pakistan. *Target journal: Ecology and Society*.
7. Ramirez, A. **Castle, S. E.**, Wardropper, C. (*in prep*). Influence of place attachment on agroforestry adoption. *Target journal: Renewable Agriculture and Food Systems*.

Presentations (*only listing presentations given as first author*)

Invited

1. **Castle, S. E.** & Cameron, D. (co-presenting) (2025). *Opportunities and challenges in incorporating dMRV into carbon accounting*. Yale Forest Forum: Frontiers in Forest Carbon Crediting (virtual).
2. **Castle, S. E.** (2025). *Seeing the World's Forests: Remote Sensing and the Future of Forest Policy*. 2025 SMART Talks on Climate Change, Yale Center Beijing (virtual).
3. **Castle, S.** (2025). *Science to Advance Digital Monitoring, Reporting, and Verification*. Talk presented as part of the panel: *Improved Science for the Nature-based Carbon Markets of Today and Tomorrow* at North American Carbon World, Los Angeles, CA.

Media: Carbon Pulse

4. **Castle, S. E.**, Miller, D. C., & Wardropper, C. (2024) *Social-ecological suitability of agroforestry in the Midwest*. Iowa Learning Farms Webinar (virtual): <https://vimeo.com/showcase/10108315/video/939605215>.

Contributed - external

1. **Castle, S. E.**, Martinez-Alvarez, C., Sanford, L. (2025). *Quantifying Tren Maya's Environmental Footprint: Forest Change and Local Opposition in Mexico's Yucatán Peninsula*. Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) 11th Annual Meeting, Lima, Peru.
2. **Castle, S. E.**, Miller, D. C., & Wardropper, C. (2024). *Mapping the suitability and adoption potential of agroforestry in the United States Midwest*. 2024 Agriculture, Food & Human Values Society (AFHVS) and the Association for the Study of Food and Society (ASFS) Conference, Syracuse, New York, USA.
3. **Castle, S. E.** (2023). *Mapping the suitability and adoption potential of agroforestry in the United States Midwest*. Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) 9th Annual Meeting, Nairobi, Kenya.
4. **Castle, S. E.**, Miller, D.C., Newton, P., Oldekop, J., & Kinzer, A. (2022). *Global forest and tree cover datasets for environmental analysis*. Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) 8th Annual Meeting, Rome, Italy.
5. **Castle, S. E.** (2021). *Mapping the social-ecological impacts of agroforestry*, Oral lightning talk at the Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) 7th Annual Meeting, virtual via the Global Landscapes Forum.
6. **Brown, S. E.** & Miller, D.C. (2019). *A systematic map of evidence on the impacts of agroforestry interventions*. 16th North American Agroforestry Conference meeting, Corvallis, Oregon, USA.
7. **Brown, S. E.**, Miller, D.C., Ordonez, P.J., & Baylis, K. (2019). *A systematic map of the impacts of agroforestry on agricultural productivity, ecosystem services, and human well-being*. 4th World Congress on Agroforestry, Montpellier, France.

8. **Brown, S. E.** (2018). *Using network analysis to advance understanding and integration of knowledge domains in agroforestry research*. Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) 4th Annual Meeting, Copenhagen, Denmark.
9. **Brown, S. E.**, Galvan, J., Kulkarni, T., & Chaput, A. (2012). *University of Texas VSP Structural Analysis Module Update*. Inaugural OpenVSP Workshop, San Luis Obispo, CA.

Contributed - internal

1. **Castle, S. E.** (2024). *Mapping the suitability and adoption potential of agroforestry in the United States Midwest*. 2024 NRES Research Symposium, the University of Illinois Urbana-Champaign.
2. **Castle, S. E.**, Miller, D.C., Newton, P., Oldekop, J., & Baylis, K. (2023). *Global forest and tree cover datasets for environmental analysis*. 2023 NRES Research Symposium, the University of Illinois Urbana-Champaign.
3. **Castle, S. E.** (2021). *Mapping the current extent and suitability of agroforestry in the US*, Oral proposal presentation at the 2021 Virtual NRES Research Symposium, virtual via the University of Illinois Urbana-Champaign.
4. **Brown, S. E.** & Miller, D.C. (2019). *Using network analysis to advance understanding and integration of knowledge domains in agroforestry research*. 5th Annual International Food Security at Illinois (IFSI) Symposium, Urbana-Champaign, Illinois, USA.

Poster & Digital Presentations

1. **Castle, S.**, Alencar, L., Baylis, K., Costa, L., Kinzer, A., Nakamura, K., Newton, P., Oldekop, J., Sanford, L., Tripathy, P., Miller, D. (2025). *Identifying spatial priorities to jointly address forest conservation and poverty agendas*. Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) 11th Annual Meeting, Lima, Peru.
2. **Brown, S. E.**, Miller, D. C., Ordonez, P. J., Baylis, K., & Hughes, K. (2020). *The Impacts of Agroforestry Interventions on Agricultural Productivity, Ecosystem Services, and Human Well-Being in Low- and Middle-Income Countries: A Systematic Review*, Twitter presentation at the FLARE (Forests & Livelihoods: Assessment, Research, and Engagement) Network Twitter Conference 2020.
3. **Brown, S. E.**, Xiou, G., Rana, P., Varshney, L., & Miller, D. C. (2018). *Network Analysis as a Tool for Shaping Conservation and Development Policy: A Case Study of Timber Market Optimization in India*, Poster presentation at the 2018 Bloomberg Data for Good Exchange Conference, New York, NY.
4. **Brown, S. E.** & Miller, D. C. (2017). *Evidence for the Impacts of Agroforestry on Agricultural Productivity, Ecosystem Services, and Human Well-Being: A Systematic Map*, Poster presentation at the Green Lands Blue Waters Conference, Madison, WI.

Teaching Experience

Spring 2022	Instructor of Record, NRES 325 – Natural Resource Policy & Management University of Illinois Urbana-Champaign
2019 – 2021, 2023	Teaching Assistant, NRES 325 – Natural Resource Policy & Management University of Illinois Urbana-Champaign

Professional Service and Training

Conferences, Symposia, and Workshops Organized

2024 Assistant organizer, High-Integrity Carbon Markets Science Hub Workshop, December 8-11, 2024, Yale University, New Haven, CT

2024 Conference Coordination Committee member, “Forests & Livelihoods: Assessment, Research, and Engagement” (FLARE) Network Conference, October 3-7, 2024, Rome, Italy

2024 Panel organizer, “Diversified agroforestry systems for social-environmental sustainability” panel at the 2024 Agriculture, Food & Human Values Society (AFHVS) and the Association for the Study of Food and Society (ASFS) Conference, June 5-8, 2024, Syracuse, New York, USA.

2023 Assistant organizer, Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) 9th Annual Meeting, October 12-16, 2023, Nairobi, Kenya

2023 Organizing committee member, NRES Research Symposium, March 4, 2023, University of Illinois Urbana-Champaign, Urbana, IL

2022 Assistant organizer, Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) 8th Annual Meeting, October 7-10, 2022, Rome, Italy

2022 Member, Organizing committee, NRES Research Symposium, April 23, 2022, University of Illinois Urbana-Champaign, Urbana, IL

2021 Lead organizer, NRES Research Symposium, April 17, 2021, virtual via the University of Illinois Urbana-Champaign, Urbana, IL

2021 Assistant organizer, Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) 7th Annual Meeting, November 5-6, 2021, virtual via the Global Landscapes Forum

2019 Lead organizer, NRES Graduate Student Nominated Seminar Speaker, January 18, 2019, NRES Seminar Series, University of Illinois Urbana-Champaign, Urbana, IL

University Service, Professional Training, and Community Outreach

2024-present Yale Center for Geospatial Solutions, Postdoctoral Affiliate

2024-present Yale Applied Science Synthesis Program, Postdoctoral Affiliate

2024-2025 Guest Speaker, Environmental Social Science Methods course (NRES 340), “Qualitative Research Methods” panel each spring, UIUC.

2021-2024 Member, NRES Graduate Student Association (formerly NRES Graduate Student Advisory Committee), University of Illinois Urbana-Champaign (UIUC)

2018-2024 (annual) Panel organizer, NRES New Graduate Student Orientation, UIUC

2021, 2024 Panel organizer, NRES Graduate Student Recruitment Panel, UIUC

2022, 2023 Panel member for NRES 594 Professional Orientation course, “How to Succeed in Graduate School”, UIUC

2018-2021 Founding President and Faculty Liaison, NRES Graduate Student Advisory Committee, UIUC

2020-2021 Member, Students Advising on Graduate Education, Graduate College, UIUC

2019, 2020 Panel member, NRES Grad School Prep for Undergraduate Students, UIUC

2018-2019 Member, Science Policy Group (Professional Development Committee), UIUC

Summer 2018	Agroforestry Academy, University of Missouri, Center for Agroforestry
2017-2018	Farm Worker, Sustainable Student Farm & Sola Gratia Farm, Urbana, Illinois

Peer Reviewer

Journals (*number of papers*): Conservation Letters (1), Ecology and Society (1), Environment, Development and Sustainability (1), Environmental Evidence (8), Environmental Research Letters (2), Journal of Applied Ecology (2), Nature Communications Earth & Environment (1), PLOS ONE (1), Renewable Agriculture and Food Systems (1), Soil and Tillage Research (1), The Lancet Planetary Health (2), Urban Agriculture & Regional Food Systems (1)

Technical Skills

Software: Google Earth Engine; ArcGIS Pro; R Studio; Python; NVivo; GitHub; BitBucket; Figshare; Eppi-Reviewer; Colandr; Covidence; JavaScript; Java; Stata (basic); GeoDa (basic); MATLAB (basic); EndNote; Mendeley; Zotero; Inventor; Solidworks; Microsoft Office; Adobe Acrobat; Adobe Illustrator.