

## Sarah E. Castle

### Curriculum Vitae

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Department of Forest and Wildlife Ecology  
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### Education

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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

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2025 – Present	<b>Assistant Professor, University of Wisconsin-Madison</b> Department of Forest and Wildlife Ecology
2024 – 2025	<b>Postdoctoral Associate, Yale University</b> Yale School of the Environment
2025 – 2025	<b>Industry Fellow, Yale Center for Natural Carbon Capture, Yale University</b> Yale School of the Environment
2017 – 2024	<b>Graduate Research Assistant, University of Illinois Urbana-Champaign</b> Department of Natural Resources and Environmental Sciences
2021	<b>Geospatial Analysis Consultant, UN Food and Agriculture Organization</b> Forestry Division

### Awards and Fellowships

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#### *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 <sup>th</sup> 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 (JBT) 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.*)

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##### **Journal articles**

1. **Castle, S. E.**, Miller, D. C., & Wardropper, 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., Ihalainen, 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. Razafindratsima, 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](https://arxiv.org/abs/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 Lamo 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/cc2544en>
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., Ihalainen, 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*.

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

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**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) 7<sup>th</sup> 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**

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

## Professional Service and Training

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### *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) 9<sup>th</sup> 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) 8<sup>th</sup> 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) 7<sup>th</sup> 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**

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**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.