

CHRISTINE D. MILLER HESED

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<https://nccasc.colorado.edu/partners/who-we-are/christy-miller-hesed>

APPOINTMENTS

- 2022– Research Scientist II, CIRES, University of Colorado Boulder
2022– Regional Climate Adaptation Scientist, North Central Climate Adaptation Science Center
2020–2022 Postdoctoral Research Associate, North Central Climate Adaptation Science Center/CIRES
2016–2022 Postdoctoral Associate, Department of Anthropology, University of Maryland College Park
2017–2018 Math Professor, Hesston College

EDUCATION

- 2016 Ph.D. Anthropology**
University of Maryland, College Park, MD
Dissertation: “Integrating Environmental Justice and Social-Ecological Resilience for Successful Adaptation to Climate Change: Lessons from African American Communities on the Eastern Shore of the Chesapeake Bay”
- 2010 M.S. Sustainable Development & Conservation Biology**
University of Maryland, College Park, MD
- 2007 B.A. Biology (Environmental Studies) *Summa Cum Laude***
Goshen College, Goshen, IN

RESEARCH

- 2022– *Regional Climate Adaptation Scientist*, North Central CASC, CIRES, UC – Boulder
Exploring the intersection of climate vulnerability and resource management in rural communities.
- 2020–2022 *Postdoctoral Research Associate*, Grasslands Project, NC CASC, CIRES, UC - Boulder
Research Coordinator of the NC CASC Grasslands Synthesis Project: recruiting individuals to serve on two working groups and an advisory committee and coordinating those groups to synthesize 1) grassland management goals, challenges, and information needs; and 2) the science on ecology and climate change to inform grassland management in the Great Plains. Led all aspects of project implementation, synthesis, and communication (written publications and oral presentations).
- 2019–2022 *Postdoctoral Associate*, Dept. of Anthropology, University of Maryland – College Park
Serving as a research consultant in 1) cultural consensus methods and analysis for the Environmental Defense Fund; 2) collaborative learning and engaging with underserved and rural

communities for Maryland Sea Grant.

- 2017–2019 *Project Director & Postdoctoral Researcher*, Dept. of Anthropology, UMD – College Park
[Linking Rural Decision-Makers with Local Churches to Build Coastal Resilience to a Changing Climate](#)
- 2016–2017 *Postdoctoral Consulting Associate*, Dept. of Anthropology, U. of Maryland – College Park
Conducting data analysis (including cultural consensus) on anthropological data and coordinating the development and writing of a multidisciplinary research proposal on climate adaptation.
- 2012–2016 *Principal Investigator*, Dissertation Research, Dept. of Anthropology, UMD – College Park
Conducting participant observation, community workshops, and interviews among three rural African American communities on Maryland’s Eastern Shore to understand environmental justice, vulnerability, adaptation, and resilience to sea-level rise.
- 2005 *Maple Scholar Intern*, Depts. of Biology and Environmental Sciences, Goshen College
Conducted research with Dr. Lisa Renee English, Asst. Prof. of Biology, on the effects of proximity to old-growth prairie on aphid populations and soybean growth. Carried out daily fieldwork, data entry, and analysis. Gave weekly presentations to fellow Maple Scholar Interns in other disciplines.

AWARDS & HONORS

- 2023 Nominee, Cooperative Institute for Research in Environmental Sciences Outstanding Performance Award, University of Colorado Boulder
- 2021 Co-recipient, Hackenberg Prize
For demonstrating sustained and meaningful collaboration to improve the communities we worked with in the Deal Island Peninsula Project
- 2019 Co-recipient, WAPA Praxis Award
For translating anthropological knowledge into action in the Deal Island Peninsula Project
- 2017 Nominee, Charles A. Carmello Distinguished Dissertation Award, University of Maryland
- 2014 Anthroplus Student Paper Prize: Second Place
“Using Multidimensional Scaling and Cluster Analysis to Understand Local Vulnerability to Climate Change” at the *Anthroplus 5th Annual Conference: Exploration and Innovation in the 21st Century*, University of Maryland, College Park, MD, 5 April 2014
- 2010 Flagship Fellowship Nominee, University of Maryland – College Park
- 2010 American Association of University Women Award Nominee, College Park Branch

GRANTS, FELLOWSHIPS, & SCHOLARSHIPS

- 2022– PI, USGS Grant, Understanding the intersection of climate vulnerability and resource management in rural communities: a study of social-ecological connections

- 2017–2019 Co-PI, NOAA COCA Grant, Supporting Emergent Coastal Communities in a Changing Climate
Linking Rural Decision-Makers with Local Churches to Build Resilience to a Changing Climate
- 2015–2016 Anthropology Chair’s Fellowship, University of Maryland – College Park
- 2014 Jacob K. Goldhaber Travel Award, University of Maryland – College Park
- 2013 National Socio-Environmental Synthesis Center (SESYNC): Selected for funding to attend the SESYNC Proposal Writing Workshop, January 15 – 17, 2014, Annapolis, MD
- 2012–2015 EPA Science to Achieve Results Fellowship, Emerging Environmental Approaches & Challenges: Social Sciences
Social-Ecological Resilience and Adaptation on the Eastern Shore of the Chesapeake Bay
- 2003–2007 Menno Simons Scholarship, Goshen College
- 2003–2004 Music Scholarship, Goshen College

PUBLICATIONS

Peer Reviewed Journal Articles and Reports

2023. **Miller Hesed, Christine D.**, Heather M. Yocum, Molly Cross, Aparna Bamzai-Dodson, Ben Wheeler, Jon P. Beckmann, Marissa Ahlering, Kimberly R. Hall, Emily Boyd-Valandra, Danika Mosher, Brian W. Miller, and Sarah Jaffe. Seventy Questions of Importance to the Conservation of the North Central Grasslands of the United States in a Changing Climate. *Conservation Science and Practice*, e12998. <https://doi.org/10.1111/csp2.12998>.
2023. **Miller Hesed, Christine D.**, Yocum, H.M., Rangwala, I., Symstad, A.J., Martin, J.M., Ellison, K., Wood, D.J.A., Ahlering, M., Chase, K.J., Crausbay, S., Davidson, A.D., Elliott, J., Giocomo, J., Hoover, D.L., Klemm, T., Lightfoot, D., McKenna, O.P., Miller, B.W., Mosher, D., Nagy, R.C., Nippert, J.B., Pittman, J., Porensky, L., Stephens, J., and Zale, A.V. Synthesis of climate and ecological science to support grassland management priorities in the North Central Region: U.S. Geological Survey Open-File Report 2023–1036, 21 p., <https://doi.org/10.3133/ofr20231036>.
2023. **Miller Hesed, Christine D.** and Yocum, Heather M. Grassland management priorities for the North Central Region: U.S. Geological Survey Open-File Report 2023–1037, 53 p., <https://doi.org/10.3133/ofr20231037>.
2023. Sudol, Taryn A., **Christine D. Miller Hesed**, Jenna M. Clark, Fredrika C. Moser. Resisting-accepting-directing sea level rise on the Chesapeake Bay: Agricultural producers’ motivations and actions. *Journal of Environmental Management* 332. <https://doi.org/10.1016/j.jenvman.2023.117355>.

2022. Webster, Suzanne E., E. Caroline Donovan, Elizabeth Chudoba, **Christine D. Miller Hesed**, Michael Paolisso, William C. Dennison. Identifying and harmonizing the priorities of stakeholders in the Chesapeake Bay environmental monitoring community. *Current Research in Environmental Sustainability* 4. <https://doi.org/10.1016/j.crsust.2022.100155>.
2021. **Miller Hesed, Christine D.**, Michael Paolisso, Elizabeth R. Van Dolah, and Katherine J. Johnson. Using cultural consensus analysis to measure diversity in social-ecological knowledge for inclusive climate adaptation planning. *Weather, Climate, and Society*. <https://doi.org/10.1175/WCAS-D-21-0047.1>.
2021. Prell, Christina, **Christine D. Miller Hesed**, Katherine Jo Johnson, Michael Paolisso, Jose Daniel Teodoro, Elizabeth Van Dolah. Transdisciplinarity and Shifting Network Boundaries: The Challenges of Studying an Evolving Stakeholder Network in Participatory Settings. *Field Methods*. <https://doi.org/10.1177/1525822X20983984>.
2020. Van Dolah, Elizabeth R., **Christine D. Miller Hesed**, and Michael J. Paolisso. Marsh Migration, Climate Change, and Coastal Resilience: Human Dimensions Considerations for a Fair Path Forward. *Wetlands* 40(6): 1751–1764. <https://doi.org/10.1007/s13157-020-01388-0>.
2020. **Miller Hesed, Christine D.**, Elizabeth R. Van Dolah, and Michael Paolisso. Engaging faith-based communities for rural coastal resilience: lessons from collaborative learning on the Chesapeake Bay. *Climatic Change* 159: 37–57. <https://doi.org/10.1007/s10584-019-02638-9>.
2018. Kirshen, Paul, Thomas Ballesterio, Ellen Douglas, **Christine D. Miller Hesed**, Matthias Ruth, Michael Paolisso, Chris Watson, Phil Giffie, Kim Vermeer, and Kirk Bosma. Engaging Vulnerable Populations in Multi-Level Stakeholder Collaborative Urban Adaptation Planning for Extreme Events and Climate Risks – A Case Study of East Boston USA. *Journal of Extreme Events*. <https://doi.org/10.1142/S2345737618500136>.
2017. **Miller Hesed, Christine D.** and David M. Ostergren. Promoting Climate Justice in High Income Countries: Lessons from African American Communities on the Chesapeake Bay. *Climatic Change* 143: 185–200. <https://doi.org/10.1007/s10584-017-1982-4>.
2015. **Miller Hesed, Christine D.** and Michael Paolisso. Cultural knowledge and local vulnerability in African American communities. *Nature Climate Change* 5(7): 683–687. <https://doi.org/10.1038/nclimate2668>.
2012. **Miller Hesed, Christine D.** A Response to Jerstad: Overlooked Strengths of an Anthropology of Climate Change. *Imponderabilia* 4: 59–61.

Book Chapters

2022. Paolisso, Michael, Elizabeth Van Dolah, Katherine J. Johnson, and **Christine D. Miller Hesed**. Deal Island Peninsula Partnership: Applying Environmental Anthropology, Ethnography and Collaborative Learning. In *Profiles in Anthropological Praxis*. Redding, Terry and Charlie Cheney, eds. Pp. 68-78. New York, NY: Berghahn.

2017. **Miller Hesed, Christine D.** Responding to Climate Change: Local Knowledge in African American Communities on Maryland's Eastern Shore. In *Socialism in Process: Ecology and Politics Toward a Sustainable Future*. Justin Heinzekehr and Philip Clayton, eds. Pp. 181-203. Claremont, CA: Process Century Press.

Book Reviews

2013. **Miller Hesed, Christine D.** The New Holy Wars: Economic Religion vs. Environmental Religion in Contemporary America. *Review of Social Economy* 71(1): 123–126.

Scholarly Papers

2016. **Miller Hesed, Christine D.** Integrating Environmental Justice and Social-Ecological System Resilience for Successful Adaptation to Climate Change: Lessons from African American Communities on the Eastern Shore of the Chesapeake Bay. Dissertation for Doctor of Philosophy in Anthropology, University of Maryland – College Park.
2010. **Miller Hesed, Christine D.** The Influence of Christianity on Environmental Attitudes. Scholarly Paper for Master of Science in Sustainable Development and Conservation Biology, University of Maryland – College Park.

Reports and Educational Materials

2023. Clark-Wolf, K., S. Ahler, I. Rangwala, C. Dixon, & **C. D. Miller Hesed**. Rapid Climate Assessment: Climate Change Impacts on Introduced Cool-Season (C3) Grasses in the Prairie Pothole Region, USA. North Central Climate Adaptation Science Center, University of Colorado Boulder, Boulder, CO. 4pp. https://nccasc.colorado.edu/sites/default/files/2023-11/PrairiePotholes_RCAP4-pager.pdf
2023. **Miller Hesed, C. D.**, Yocum, H. M., Symstad, A., Nagy, R. C., Rangwala, I., & Peña, U. Prairie Climate Companion: Invasive Species. North Central Climate Adaptation Science Center, Cooperative Institute for Research in Environmental Sciences, University of Colorado Boulder, Boulder, CO. 2pp. https://nccasc.colorado.edu/sites/default/files/2023-10/PCC_invasivespecies.pdf
2023. **Miller Hesed, C. D.**, Yocum, H., Symstad, A., Nippert, J., Rangwala, I., & Peña, U. Prairie Climate Companion: Woody Encroachment. North Central Climate Adaptation Science Center, Cooperative Institute for Research in Environmental Sciences, University of Colorado Boulder, Boulder, CO. 2pp. https://nccasc.colorado.edu/sites/default/files/2023-08/grasslands_woody_encroachment_FINAL.pdf
2023. **Miller Hesed, C. D.**, Yocum, H., Symstad, A., Porensky, L., Rangwala, I., & Peña, U. Prairie Climate Companion: Native Plant Composition & Diversity. North Central Climate Adaptation Science Center, Cooperative Institute for Research in Environmental Sciences, University of

Colorado Boulder, Boulder, CO. 2pp. https://nccasc.colorado.edu/sites/default/files/2023-06/Grasslands_Native%20Plant_BAO%20approved.pdf

2023. **Miller Hesed, C. D.**, Yocum, H., Stephens, J., Rangwala, I., & Peña, U. Prairie Climate Companion: Wild & Prescribed Fire. North Central Climate Adaptation Science Center, Cooperative Institute for Research in Environmental Sciences, University of Colorado Boulder, Boulder, CO. 2 pp. https://nccasc.colorado.edu/sites/default/files/2023-05/Grasslands_Fire_FINAL.pdf
2023. **Miller Hesed, C. D.**, Yocum, H., Chase, K., McKenna, O., Rangwala, I., & Peña, U. Prairie Climate Companion: Water Availability. North Central Climate Adaptation Science Center, Cooperative Institute for Research in Environmental Sciences, University of Colorado Boulder, Boulder, CO. 2 pp. https://nccasc.colorado.edu/sites/default/files/2023-05/Grasslands_Water%20Availability.pdf
2023. **Miller Hesed, C. D.**, Yocum, H., Rangwala, I., & Peña, U. Prairie Climate Companion: Shifting Temperature and Precipitation. North Central Climate Adaptation Science Center, Cooperative Institute for Research in Environmental Sciences, University of Colorado Boulder, Boulder, CO. 2 pp. https://nccasc.colorado.edu/sites/default/files/2023-05/Grasslands_TempPrecip_Final2_May5_2023.pdf
2015. **Miller Hesed, Christine D.** Fair and Just Adaptation to Climate Change and Flooding. A Report for Policymakers and Environmental Organizations on the Outcomes of the Workshop: *Fair and Just Adaptation to Climate Change and Flooding*. 10 pp.
2015. **Miller Hesed, Christine D.** Fair and Just Adaptation to Climate Change and Flooding. A Report for African American Church Communities on the Outcomes of the Workshop: *Fair and Just Adaptation to Climate Change and Flooding*. 6 pp.
2009. **Miller Hesed, Christine**, Rebecca Huncosky, Katherine Teale. Building Resilience Along the Atlantic Coast of the National Wildlife Refuge System: A Transdisciplinary Analysis of the Cedar Island-Cape Romain Gap and Potential for Conservation Establishment. Prepared for the United States Fish and Wildlife Service. 130 pp.
2009. **Miller Hesed, Christine D.** A Guide to Local Market Assessments and Value-Added Products for Farmers and Ranchers. Produced for the Rural Coalition/Coalición Rural and the US National Agricultural Statistics Service. 54 pp.
2009. **Miller Hesed, Christine D.** A Guide to Completing the US Census of Agriculture for Farmers and Ranchers. Produced for the Rural Coalition/Coalición Rural and the US National Agricultural Statistics Service. 37 pp.

Data Releases

2023. **Miller Hesed, Christine D.**, Heather M. Yocum, Jon P. Beckmann, Aparna Bamzai-Dodson, Kimberly R. Hall, Molly Cross, Marissa Ahlering, Emily Boyd-Valandra, Danika Mosher, and

Ben Wheeler. Broadly Shared Information Needs among Grassland Managers in the North Central Region: U.S. Geological Survey, <https://doi.org/10.5066/P9PCQHA2>.

2023. Yocum, Heather M., Indigo Bannister, and **Christine D. Miller Hesed**. Species of Greatest Conservation Need in the North Central Region: U.S. Geological Survey, <https://doi.org/10.5066/P97JFAXP>.

PRESENTATIONS

Invited Lectures

2023. **Miller Hesed, Christine D.**, and Heather Yocum. Grasslands Synthesis Project: Key Findings and Remaining Questions. *US Fish and Wildlife Service Grasslands Ecosystem Team Bi-Weekly Meeting*, Teams, 12 December, 2023. [30 min; ~30 attendees].

2023. Yocum, Heather M. and **Christine D. Miller Hesed**. Grasslands Synthesis Project. *US Fish and Wildlife Service Grasslands Ecosystem Team Bi-Weekly Meeting*, Teams, 17 October, 2023. [30 min; ~50 attendees].

2023. **Miller Hesed, Christine D.** Patch-Burn Grazing: Addressing Broadly Shared Grassland Management Goals and Questions. *Patch Burn Grazing Working Group Meeting*, Auburn Community Center, Auburn, KS, 7 September, 2023. [20 min; ~30 attendees].

2023. **Miller Hesed, Christine D.** and Heather M. Yocum. Grasslands Synthesis Project: Findings and Next Steps. *North Central Climate Adaptation Science Center Webinar Series*, Online, 11 May, 2023. [60 min; ~125 registrants].

2022. **Miller Hesed, Christine D.** Climate Justice from the Bay to the Plains. *3-Center Retreat*, Online, 7 November, 2022. [5 min; audience included professionals from the North Central Climate Adaptation Science Center, Western Water Assessment, and the Northern Plains Climate Hub]

2022. **Miller Hesed, Christine D.** Collaborative Learning to Build Climate Resilience in Rural Communities. *U.S. Geological Survey Risk Community of Practice Webinar Series*, Online, 18 May, 2022. [25 min; ~110 registrants]

2021. **Miller Hesed, Christine D.** Grassland Management Challenges & Opportunities in a Changing Climate. *Standing Rock Sioux Tribe Climate Change Summit*, Russell Reid Auditorium, Bismarck, ND (and on Zoom), 9 September, 2021. [30 min; ~100 attendees]

2021. **Miller Hesed, Christine D.** Environmental Justice & Climate Resilience on Maryland's Eastern Shore. *Virtual Seminar Series hosted by Maryland Department of the Environment*, Online, 29 July, 2021. [60 min; ~40 attendees]

2021. Paolisso, Michael, Elizabeth Van Dolah, **Christine D. Miller Hesed**, and Katherine Johnson. Robert A. and Beverly H. Hackenberg Lecture. Building Resilience through Collaboration: The Deal

Island Peninsula Partnership, at the *Society for Applied Anthropology 81st Annual Meeting: Linking Social, Cultural and Physical Ecologies*, Online, 24 March, 2021.

2020. **Miller Hesed, Christine D.** Conservation for the People: Engaging New Stakeholders to Promote Socio-Ecological Resilience. Plenary Presentation at the *Kansas Natural Resources Conference "Conservation During Extremes: Cultivating Ecosystem Resilience,"* Hilton Garden Inn, Manhattan, KS, 30 January 2020. [45 min; ~300 session attendees]
2019. **Miller Hesed, Christine D.** and Elizabeth Van Dolah. Using Collaborative Learning to Support Climate Change Planning in Rural Coastal Communities. Invited Talk at the *EPA Social Environmental Science Exchange Monthly Webinar*, Skype for Business, 28 August 2019. [35 min; ~45 meeting attendees]
2019. **Miller Hesed, Christine D.** Engaging Faith Communities for Coastal Resilience: Opportunities, Challenges, and Next Steps. Invited Talk at the *Chesapeake Bay Sentinel Site Cooperative Management Team Meeting*, Webex, 17 May 2019. [20 min; ~30 meeting attendees]
2019. **Miller Hesed, Christine D.** Climate Justice. Invited Talk at *Who Cares About Climate Change?: A Pastoral Retreat*, Camp Mennoscah, Murdock, KS, 9 April 2019. [90 min; ~19 session attendees]
2019. Van Dolah, Elizabeth, **Christine D. Miller Hesed**, and Michael Paolisso. Marsh Migration and Human Relocation: Finding a Fair Path Forward. Invited Talk at the *Marsh Resilience Summit*, Woodlands Hotel, Williamsburg, VA, 5 February 2019. [12 min; ~200 session attendees]
2014. **Miller Hesed, Christine D.** The Importance of Justice for Community Resilience to Climate Change. Invited Talk in *Climate Change and Resiliency in the Eastern Shore* at the *3rd Annual Symposium on Environmental Justice and Environmental Health: Disparities in Maryland and Washington, DC*, University of Maryland, College Park, MD, 6 December 2014. [20 min; ~20 symposium attendees]
2014. **Miller Hesed, Christine D.** Social-Ecological Resilience to Sea-Level Rise on Maryland's Eastern Shore. Invited Talk in the *Biological Sciences Department Science Speaker Series* at Goshen College, Goshen, IN, 28 March 2014. [50 min; ~50 undergraduate students, faculty, and community members]

Conference Presentations

2024. Kuster, Emma, Elise Elliott-Smith, Sean Finn, **Christine D. Miller Hesed**, and Renee McPherson. Fostering climate-informed decisions through ecosystem-based climate training opportunities, at the *International Association for Landscape Ecology – North America Annual Meeting*, Oklahoma City, OK, April 1 – 5, 2024.
2023. Gonzalez Coffin, Sarah and **Christine D. Miller Hesed**. Synthesizing Great Plains Social Science: Interdisciplinary Solutions and Responses to Climate Change for Grassland Managers in North Central USA, at the *Initiative on Climate Adaptation Research and Understanding through the Social Sciences (ICARUS) VI Workshop*, Ann Arbor, MI, 29 September – 1 October, 2023.

2023. **Miller Hesed, Christine D.** and Elizabeth R. Van Dolah, *Panel Co-Chairs*. Is Conservation “For the Birds?”: Challenges and Opportunities for Incorporating Human Dimensions into Natural Resource Management and Conservation for More Equitable and Just Outcomes, Part II, at the *Society for Applied Anthropology 83rd Annual Meeting: Applied Anthropology at a Crossroad*, Hilton Cincinnati Netherland Plaza Hotel, Cincinnati, OH, 30 March 2023.
2023. Van Dolah, Elizabeth R. and **Christine D. Miller Hesed**, *Panel Co-Chairs*. Is Conservation “For the Birds?”: Challenges and Opportunities for Incorporating Human Dimensions into Natural Resource Management and Conservation for More Equitable and Just Outcomes, Part I, at the *Society for Applied Anthropology 83rd Annual Meeting: Applied Anthropology at a Crossroad*, Hilton Cincinnati Netherland Plaza Hotel, Cincinnati, OH, 30 March 2023.
2022. **Miller Hesed, Christine D.** Aligning Climate Science Synthesis with Grassland Management Priorities and Information Needs in the North Central Region, in *Integrating Climate Science into Conservation Decisions: Frameworks and Case Studies of Stakeholder Engagement and Use of Actionable Science* at the *North American Congress for Conservation Biology Conference: Restoring Connections and Building Resilience in a Changed World*, Silver Legacy, Reno, NV, 18 July 2022.
2022. **Miller Hesed, Christine D.** and Heather Yocum. Help Wanted: Social Science to Support Climate Adaptation in the Great Plains, in *Environmental Crises, Changing Landscapes* at the *Society for Applied Anthropology 82nd Annual Meeting: The Revolutionary Potential of the Social Sciences*, Sheraton Salt Lake City Hotel, Salt Lake City, UT, 23 March 2022.
2021. Sudol, Taryn, **Christine D. Miller Hesed**, Jenna Clark, and Fredrika Moser. Evaluating Land Use Tradeoffs on Agricultural Lands Affected by Sea Level Rise, at the *Columbia Climate School, The Earth Institute: At What Point Managed Retreat? Resilience, Relocation, and Climate Justice*, Virtual conference, 25 June, 2021.
2021. **Miller Hesed, Christine D.**, Megan Munkacsy, Taylor Gedeon, Andrea Miralles-Barboza, and Elizabeth Van Dolah. The Human Dimensions of Wetlands: Research Challenges, Opportunities, and Needs for Building Coastal Resilience to Climate Change, at the *Society for Applied Anthropology 81st Annual Meeting: Linking Social, Cultural and Physical Ecologies*, Online, 25 March, 2021.
2019. Paolisso, Michael, Elizabeth Van Dolah, Katherine Johnson, and **Christine D. Miller Hesed**. Collaborative Learning as Practice and Research on Climate Change Inequality, in *For Greater Social Equality in Climate Change Mitigation and Adaptation: Linking Sciences and Humanities, Closing the Theory-Practice Gap* at the *Socio-Ecological Practice Research Conference: Exploring, Celebrating, and Cultivating the Right Ways to Close the Theory-Practice Gap in Socio-Ecological Research*, Tongji University, Shanghai, China, 14 June 2019.
2019. **Miller Hesed, Christine D.**, Elizabeth Van Dolah, and Michael Paolisso. Engaging Faith Communities for Coastal Resilience: Lessons from Collaborative Learning on the Eastern Shore, presented by Astrid Caldas at the *5th University of Maryland Environmental Justice and Health*

Disparities Symposium, University of Maryland, College Park, MD, 11 May 2019.

2019. **Miller Hesed, Christine D.**, Elizabeth Van Dolah, and Michael Paolisso. The Benefits and Challenges of Working with Rural Churches to Address Coastal Resilience, in *Facilitating Collaborations for Enhanced Resilience to Socio-Ecological Change* at the *Society for Applied Anthropology 79th Annual Meeting: Engaging Change in Turbulent Times*, Hilton Portland Downtown, Portland, OR, 21 March 2019.
2019. Van Dolah, Elizabeth, Michael Paolisso, and **Christine D. Miller Hesed**. “You’ve Got to Have Faith”: Ethnographic Approaches for Building Collaborative Bridges on Climate Change, in *Facilitating Collaborations for Enhanced Resilience to Socio-Ecological Change* at the *Society for Applied Anthropology 79th Annual Meeting: Engaging Change in Turbulent Times*, Hilton Portland Downtown, Portland, OR, 21 March 2019.
2018. Paolisso, Michael and **Christine D. Miller Hesed**. Anthropology, Collaboration and Climate Change, in *Sustainable Futures of Chesapeake Communities Facing Relative Sea-level Rise* at the *Society for Applied Anthropology 78th Annual Meeting: Sustainable Futures*, Loews Philadelphia Hotel, Philadelphia, PA, 4 April 2018.
2016. **Miller Hesed, Christine D.** and Michael Paolisso. Cultural Knowledge and Local Vulnerability in African American Communities, in *Climate Change, Poverty, and Vulnerability* at the *Climate Action 2016 Forum*, University of Maryland, College Park, MD, 4 May 2016.
2015. **Miller Hesed, Christine D.** Balancing Environmental Conservation and Human Adaptation on Maryland’s Eastern Shore, in *Linking Human Rights and the Environment in the Context of Climate Change* at the *Society for Applied Anthropology 75th Annual Meeting: Continuity and Change*, Omni William Penn Hotel, Pittsburgh, PA, 25 March 2015.
2014. **Miller Hesed, Christine D.** African American Access to Climate Adaptation Decision-Making on the Eastern Shore, in *Changing Climate and Community Resiliencies in the Chesapeake Bay Region* at the *American Anthropological Association 113th Annual Conference: Producing Anthropology*, Marriott Wardman Park, Washington, DC, 3 December 2014.
2014. **Miller Hesed, Christine D.** Using Multidimensional Scaling and Cluster Analysis to Understand Local Vulnerability to Climate Change, in “*Changes*”: *Navigating Relationships in a Changing Environment* at the *Anthroplus 5th Annual Conference: Exploration and Innovation in the 21st Century*, University of Maryland, College Park, MD, 5 April 2014.
2013. **Miller Hesed, Christine D.** Environmental Justice and Resilience to Sea-Level Rise Along Maryland’s Eastern Shore: An Anthropological Analysis of the Vulnerability and Adaptive Capacity among Three African American Communities, in *Anthropological Engagements with Climate and Environmental Change: Whither Policy?* at the *Policy Studies Organization Sixth Annual Dupont Summit on Science, Technology, and Environmental Policy Issues*, Historic Whittemore House, Washington, DC, 6 December 2013.
2013. **Miller Hesed, Christine D.** From Knowledge to Engagement: The Challenge of Empowering

Students to Apply Climate Lessons, in *Teaching the Anthropology of Climate Change in the 21st Century* at the *Society for Applied Anthropology 73rd Annual Meeting: Natural Resource Distribution and Development in the 21st Century*, Denver, CO, 19-23 March 2013.

2013. **Miller Hesed, Christine D.** Environmental Justice, Adaptation to Climate Change, and Social-Ecological Resilience, in *Environmental Anthropology in the Chesapeake Region*, at the *Northeastern Anthropological Association 53rd Annual Meeting: Applying Anthropology: Challenging Perspectives/Creating Alternatives*, University of Maryland, College Park, MD, 1-2 March 2013.
2012. **Miller Hesed, Christine D.** Climate Change and Sea-Level Rise on the Eastern Shore: Challenges and Adaptations among Environmental Justice Communities, in *Applied Environmental Anthropology and the Chesapeake Bay* at the *Society for Applied Anthropology 72nd Annual Meeting: Bays, Boundaries, and Borders*, Baltimore, MD, 27-31 March, 2012.
2005. **Miller, Christine.** The Effects of Prairie and its Proximity on Density of the Soybean Aphid, at the *Indiana Academy of Science 121st Annual Meeting*, Saint Mary-of-the-Woods College, Saint Mary of the Woods, IN, October 2005.

Posters

2023. Kuster, Emma, Elise Elliott-Smith, Sean Finn, and **Christine D. Miller Hesed.** Ecosystem-Focused Trainings for Wildlife Managers. Presented by Emma Kuster at the *South Central CASC Fall Science Meeting 2023*, Lubbock, TX, 1-3 November.
2023. Yocum, Heather M., **Christine D. Miller Hesed**, and Imtiaz Rangwala. Climate Impacts, Stakeholder Needs, and Adaptation in Northern Great Plains Grassland Ecosystems. Presented by Heather Yocum at the *CIRES Rendezvous 2023*, Boulder, CO, 16 May.
2023. Horodyskyj Pena, Ulyana, Hailey Robe, Jane Wolken, William Travis, Imtiaz Rangwala, **Christine D. Miller Hesed**, and Heather Yocum. The NC CASC: Generating the Science to Help Resource Managers Adapt to a Changing World. Presented by Ulyana Horodyskyj Pena at the *CIRES Rendezvous 2023*, Boulder, CO, 16 May.
2022. Clark, Jenna, Taryn Sudol, **Christine D. Miller Hesed**, and Fredrika Moser. Understanding Coastal Farmers' Land Management Decisions Regarding Sea-Level Rise Stresses in the Chesapeake Bay. Presented by Jenna Clark at the *National Adaptation Forum*, Baltimore, MD, 25 October.
2021. Klemm, Toni, **Christine D. Miller Hesed**, Dannele E. Peck, Heather M. Yocum, Alisa A. Wade Wilcox, Windy K. Kelley, Jessica Halofsky, Julie Elliott, Matthew C. Reeves, Sarah M. Jaffe. Grazing in a Warmer World – Assessing the Vulnerability of Northern Mixed-Grass Prairie and Rangeland Livestock Production to Climate Change. Presented by Toni Klemm at the *American Geophysical Union Fall Meeting*, Online, 16 December 2021. agu2021fallmeeting-agu.ipostersessions.com/Default.aspx?s=33-E1-28-EB-A8-B4-63-F1-57-66-BC-36-C1-4E-0B-8E

2019. **Miller Hesed, Christine D.**, Elizabeth Van Dolah, and Michael Paolisso. Engaging Faith-Based Communities for Rural Coastal Resilience: Lessons from Collaborative Learning on the Eastern Shore. Presented at the *Marsh Resilience Summit*, Woodlands Hotel, Williamsburg, VA, 5 February 2019.

Workshops

2023. Elliot-Smith, Elise, Sean Finn, Emma Kuster, **Christine D. Miller Hesed**, and John Carlson. Grasslands-Climate Workshop. USFWS Region 6 Headquarters, Lakewood, CO, 24-25 January, 2023. Approximately 40 US Fish and Wildlife Service (FWS) staff and partners working on grassland conservation met in person in Lakewood, CO for the *Grasslands-Climate Workshop*. This workshop was collaboratively organized by the North Central CASC, Northwest CASC, South Central CASC, and the US FWS to equip US FWS with tools and practice in incorporating considerations of climate change into management decisions. The workshop used a broad Learn-Do-Reflect approach and included information delivery, hands-on tool training, peer-to-peer networking, and a scenario-based exercise. Imtiaz Rangwala of the North Central CASC presented on the use of the [Climate Toolbox](#). The workshop focused on Central North American Grasslands (Tallgrass, Northern Mixed Grass, Central Mixed Grass and Shortgrass Ecoregions and the Sagebrush-Grassland Ecotone) with some relevance to southern and montane grassland systems. This in-person workshop followed four recorded web-based training modules that can be viewed [here](#).
2010. Miller Hesed, Kyle and **Christine D. Miller Hesed**. Tips for Effective Teaching: Evaluating Student Learning with Bloom's Taxonomy. Graduate Teaching Assistant Orientation, Center for Teaching Excellence, University of Maryland. College Park, MD, 26 August 2010.

Symposium Participation and Other Presentations

2022. **Miller Hesed, Christine D.** Introducing the Early Career Scientists at the North Central Climate Adaptation Science Center. Elevator Speech given at the Climate Adaptation Science Center Early Career Workshop, Albuquerque, NM, 12 October 2022.
2009. **Miller Hesed, Christine**, Rebecca Huncosky, and Katherine Teale. Building Resilience Along the Atlantic Coast of the National Wildlife Refuge System: A Transdisciplinary Analysis of the Cedar Island-Cape Romain Gap and Potential for Additional Conservation Measures. Research presented to the US Fish and Wildlife Service in Arlington, VA, 14 December 2009.
2006. **Miller, Christine**. The Effects of Prairie and its Proximity on Density of the Soybean Aphid, at the *Goshen College Academic Symposium*, Goshen, IN, March 2006.

TEACHING EXPERIENCE

Courses

- 2017–2018 *Mathematics Professor*, Dept. of Nat. Sciences & Math, Hesston College
MASC 105, College Algebra, F2017 & Sp2018
MASC 210, Elementary Statistics, F2017 & Sp2018
- 2011–2012 *Instructor*, Dept. of Anthropology, University of Maryland – College Park
ANTH 220, Intro. to Biological Anthropology, F2011 & Sp2012

- 2010–2011 *Teaching Assistant*, Dept. of Anthropology, University of Maryland – College Park
 ANTH 220, Intro. to Biological Anthropology Lab, Dr. Teresa Leslie, Sp2011
 ANTH 260, Intro. to Sociocultural Anth. & Linguistics Disc. Section, Dr. W. Stuart, F2010
- 2008–2010 *Teaching Assistant*, Biological Sciences Program, University of Maryland – College Park
 BSCI 105, Principles of Biology I Lab, Dr. Michael Keller, Su2010
 BSCI 105, Principles of Biology I Lab, Dr. Judd Nelson, Sp2009–Sp2010
 BSCI 105, Principles of Biology I Lab, Dr. Anne Simon, F2008
- 2004–2007 *Teaching Assistant*, Dept. of Chemistry, Goshen College
 CHEM 304, Organic Chemistry II Lab, Dr. Doug Schirch, Sp2007
 CHEM 303, Organic Chemistry I Lab, Dr. Doug Schirch, F2005, F2006
 CHEM 102, Chemistry & Physics of Life Lab, Dr. Doug Schirch, Sp 2005, Sp2006
 CHEM 111, General Chemistry I Lab, Dr. Dan Smith, F2004
- 2005 *Teaching Assistant*, Dept. of Biology, Goshen College
 BIOL 111, Biological Principles I Lab w/ colloquium, Jody Saylor, F2005
 BIOL 206, Microbiology Lab, Jody Saylor, F2005
- 2004 *Tutor*, Dept. of Chemistry, Goshen College
 CHEM 303, Organic Chemistry I, Dr. Doug Schirch, F2004
 CHEM 111, General Chemistry I, Dr. Dan Smith, F2004
 CHEM 102, Chemistry & Physics of Life, Dr. Doug Schirch, F2004

Guest Lectures

2020. Environmental Justice. Guest Lecture in MEES/ANTH 620: Environment and Society (Dr. Elizabeth Van Dolah and Dr. William Dennison), College of Behavioral and Social Sciences, University of Maryland, 19 November 2020. [75 min; ~10 graduate students]
2019. Environmental Justice. Guest Lecture in MEES/ANTH 620: Environment and Society (Dr. Michael Paolisso and Dr. William Dennison), College of Behavioral and Social Sciences, University of Maryland, 10 October 2019. [75 min; 11 graduate students]
2017. The Importance of Environmental Justice for Environmental Preparedness and Response. Guest Lecture in DMGT 110: Mennonite Disaster Service Culture I (Cleo Koop), Disaster Management Program, Hesston College, 28 September 2017. [50 min; 12 undergraduate students]
2014. Anthropology and Environmental Justice. Guest Lecture in ANTH 450/650: Theory and Practice of Environmental Anthropology (Dr. Michael Paolisso), Dept. of Anthropology, University of Maryland – College Park, 23 September 2014. [75 min; 14 undergraduate students; 1 graduate student]
2013. Anthropology and Environmental Justice. Guest Lecture in ANTH 450/650: Theory and Practice of Environmental Anthropology (Dr. Michael Paolisso), Dept. of Anthropology, University of

Maryland – College Park, 17 September 2013. [75 min; ~15 undergraduate students; ~10 graduate students]

2012. Global Climate Policy & Environmental Justice. Guest Lecture in ANTH 468C/689C: Anthropology and Climate Change (Dr. Jen Shaffer), Dept. of Anthropology, University of Maryland – College Park, 24 April 2012. [75 min; ~30 undergraduate students; ~10 graduate students]
2010. Climate Change and the Relationship between Environmental Knowledge, Values, and Behavior. Guest Lecture in MEES 608N: Ecological Economics and Development Seminar (Dr. Matthias Ruth), Dept. of Public Policy, University of Maryland – College Park, 22 October 2010. [60 min; 20 graduate students]
2010. The Central Dogma of Molecular Biology: Transcription, RNA Processing, and Translation. Guest Lecture in BSCI 105: Principles of Biology I (Dr. Michael Keller), Biological Sciences Program, University of Maryland – College Park, 21 June 2010. [120 min; 20 undergraduate students]
2009. Introduction to Metabolism: Enzymes and Enzyme Regulators. Guest Lecture in BSCI 105: Principles of Biology I (Dr. Judd Nelson), Biological Sciences Program, University of Maryland – College Park, 9 October 2009. [50 min; 160 undergraduate students]
2009. Introduction to Metabolism: Metabolism, Energy, and ATP. Guest Lecture in BSCI 105: Principles of Biology I (Dr. Judd Nelson), Biological Sciences Program, University of Maryland – College Park, 7 October 2009. [50 min; 160 students]

OTHER PROFESSIONAL EXPERIENCE

- 2019 “Your Leadership Edge” Program Participant: Kansas Leadership Center, Wichita, KS. Received training in leadership skills to address complex adaptive problems.
- 2016–2017 Independent Consultant: Conducting data analysis (including multidimensional scaling and hierarchical cluster analysis) on interview data on climate impacts and behaviors.
- 2016 Independent Consultant: Creating an index for *The Carbon Fix: Forest Carbon, Social Justice and Environmental Governance*. Edited by Stephanie Paladino and Shirley J. Fiske. Routledge, 2016.
- 2008–2014 University Teaching & Learning Program Participant: Univ. of MD, College Park. Participating in activities to improve teaching and learning, both personally and across campus. Activities include a teaching course, workshops, mentoring, and observing campus teachers.
- 2009–2011 Field Assistant: Dept. of Biology, University of Maryland – College Park. Assisted with field site selection, coverboard placement, experimental plot construction, animal capture and measurement, tissue sampling, and data entry for a mark-recapture study of the dispersal patterns of *Plethodon cinereus* (red-backed salamander) at Patuxent Wildlife Research Refuge in Laurel, MD for graduate student Kyle Miller Hesed.

2009 Policy Fellow: Rural Coalition/Coalición Rural, Washington, D.C.
 Wrote marketing and census manuals for minority and underserved farmers and ranchers.
 Compiled census of agriculture statistics to promote policy for minority and underserved
 agricultural communities. Attended congressional briefings and hearings on the effect of
 climate change on farmers.

ACADEMIC SERVICE

2024 *Reviewer*, Journal of Planning Education and Research (1 manuscript).

2023 *Invited Panelist*, Midwest Climate Adaptation Science Center Panel on Synthesis, Online,
 15 August.
 Shared best practices for conducting a synthesis project.

2023 *Invited Technical External Panelist*, Oregon Sea Grant Biennial Research Competition
 2024-2026 (7 proposals).
 As an invited member of a 4-person review panel, I assessed proposed projects according to four
 criteria: 1) technical and scientific merit; 2) qualifications and past record of investigators; 3)
 suitability of budget; and 4) appropriate outreach, education, extension, and user relationship.

2023 *Reviewer*, Weather, Climate, and Society (1 manuscript).

2022 *Reviewer*, North Central Climate Adaptation Science Center FY23 grants (4 proposals).
 Assessed proposed projects according to five criteria: 1) applicability to a high-priority topic, 2)
 actionability of science and products through coordination with partners, 3) scientific merit, 4)
 study team qualifications, 5) suitability of budget and workplan, and 6) degree to which proposals
 utilize NC CASC primary tools.

2022 *Invited Panelist*, Research Ethics and Engaging Diverse Stakeholders, Climate Adaptation
 Science Center Early Career Workshop, Albuquerque, NM, 12 October. [~100 attendees].

2022 *Participant*, Contributed feedback in a listening session on the draft main themes of the
 Northern Great Plains Chapter for the 5th National Climate Assessment.

2020 *Reviewer*, Global Environmental Change (1 manuscript).

2019 *Session Co-Chair*, “Facilitating Collaborations for Enhanced Resilience to Socio-
 Ecological Change” at the *Society for Applied Anthropology 79th Annual Meeting:
 Engaging Change in Turbulent Times*, Hilton Portland Downtown, Portland, OR, 21
 March.

2018 *Reviewer*, Regional Studies in Marine Science (1 manuscript).

2018 *Reviewer*, Society & Natural Resources (1 manuscript).

2016 *Reviewer*, Forum for Social Economics (1 manuscript).

- 2015 *Reviewer*, *Surviving and Thriving in the Face of Rising Seas: Building Resilience for Communities on the Front Lines of Climate Change*, Union of Concerned Scientists
Provided feedback and suggestions to the authors on the content of the section on Maryland's Eastern Shore.
- 2014–2015 *Sustainability Committee Member*, Anthropology Department, Univ. of MD, College Park
Working to integrate sustainability thinking and practice into the department among students, faculty, and staff.
- 2014 *Reviewer*, Task Force on Global Climate Change Report, American Anthropological Association
Provided feedback and suggestions to the committee on the content of the entire report with a focus on the vulnerability, adaptation, and resilience sections.
- 2014 *Guest Speaker*, Women in Science Meeting, Goshen College, Goshen, IN
Met with undergraduate women in science majors to discuss the unique challenges and opportunities for women in science and to offer encouragement and support.
- 2012–2013 *Graduate Student Mentor*, Dept. of Environmental Sciences, University of Mass, Boston
Provided weekly guidance and support for using ethnographic methods in environmental science research.
- 2005–2007 *Co-Founder Science & Religion Discussion Group*, Goshen College, Goshen, IN

COMMUNITY OUTREACH

- 2023 *Writer & Speaker*, North Central Climate Adaptation Science Center Research Reel
Wrote part of the script and spoke in a short film highlighting NC CASC research for the public.
- 2022 *Invited Presenter*, Building Community Resilience: The Role of Faith Communities in Mitigation, Preparation, and Response to Natural Hazards. An online workshop hosted by Creation Justice Ministries in Washington, DC, 21 July. [~100 attendees on Zoom].
- 2021 *Panelist*, Cooked: Survival by Zip Code. Kansas Institute for Peace and Conflict Resolution in North Newton, KS, 7 February. [~30 participants on Zoom].
- 2020 *Discussant*, Cooked: Survival by Zip Code. Kansas Institute for Peace and Conflict Resolution in North Newton, KS, 15 November. [~30 participants on Zoom].
- 2020 *Guest Speaker*, Sermon: Climate Justice, Bethel College Mennonite Church in North Newton, KS, 20 September. [~70 participants on Zoom].
- 2020 *Co-Presenter on Climate Justice*, Caring for Climate: Beyond Denial and Despair. Learn Pray Join webinar series by Mennonite Church USA, 27 February. [110 participants on Zoom].
- 2020 *Guest Blogger*, Why Jesus would care about climate change. *Learn Pray Join*, Mennonite

Church USA, 17 February. <http://mennoniteusa.org/menno-snapshots/jesus-would-care-about-climate-change/>

- 2020 *Guest Speaker on Climate Justice*, Mentor/Mentee Pair Group at First Mennonite Church in Hutchinson, KS, 26 January.
- 2019 *Career Day Speaker*, Environmental Science class at Royal Valley High School in Hoyt, KS, 15 November. [Skype].
- 2019 *Invited Panelist*, “Climate Change” at the [*KMUW \(Wichita’s NPR Station\) Event: Engage ICT: Democracy on Tap*](#), Roxy’s Downtown, Wichita, KS, 14 May.
- 2010–2015 *Volunteer*, Environmental Anthropology Tent, Maryland Day, Univ. of MD, College Park. Prepared and shared materials and information about environmental anthropology research on the Chesapeake Bay with the general public at an all-day event each spring.