

Jason Cervenec

Byrd Polar and Climate Research Center
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Professional Preparation

The Ohio State University	Biology	B.S.	2000
The Ohio State University	Secondary Science	M.Ed.	2001

Appointments

2012-present	Education & Engagement Director, Byrd Polar and Climate Research Center, The Ohio State University, Columbus, Ohio
2015-present	Member, State Climate Office of Ohio, The Ohio State University, Columbus, Ohio
2025-present	Research Scientist, The Ohio State University, Columbus, Ohio
2001-2012	High School Science Teacher, Worthington City Schools, Worthington, Ohio
2002-2012	Science Olympiad Coach, Worthington City Schools, Worthington, Ohio
2004-2011	Professional Development Workshop Leader, Ohio Board of Regents ITQ Grant

Current Job Responsibilities

- Build climate change education, climate resilience, and science education partnerships at Ohio State University, within Central Ohio, and throughout Ohio
 - Instrumental in expanding the work of the Byrd Center and State Climate Office of Ohio to include agriculture and climate in conjunction with Dr. Aaron Wilson
 - Currently working to expand into health and climate with the College of Medicine and Wexner Medical Center
 - Established a network of collaborators in Central Ohio with whom to share research information, incubate project ideas, exchange practitioner needs, develop proposals, and educate the public
 - Climate services and climate justice included over the past five years
- Facilitate and support large, interdisciplinary teams applying for external funding involving climate change research
 - Typically involves proposals to large federal agencies and less frequently foundations
 - Submissions last year included a ~\$12M USDA urban tree canopy grant and a proposal to host a climate and health fellow
 - Internal university grants, crowdfunding, and donors are sought for smaller, incubator projects
- Supervise outreach and media staff, undergraduate employees, and high school interns at the Byrd Polar and Climate Research Center. Current direct reports include:
 - Media Specialist creating video products for the center and working with researchers to collect footage and produce videos for funded projects
 - Climate Services Coordinator (joint report) working on funded projects involving data collection and processing; research and information synthesis; communication and education; and stakeholder engagement
 - User Interface Designer/Programmer (joint report) developing code for user interfaces and databases as well as code management on funded projects
 - Three undergraduate staff members working on funded outreach projects, facilitating tours, and running school/youth programs

- Two undergraduate staff members creating monthly/quarterly climate summaries and working on funded projects with the State Climate Office of Ohio
- One undergraduate staff member creating graphics, animations, and design products for the center and funded projects
- Two high school interns selected as part of a program to increase career and STEM access in partnership with OSU University Libraries and the Expanding Visions Foundation (summer only)
- Develop and implement broader impacts plans for Byrd Center researchers applying for federal grants
 - Involves close reading of technical science plans and meeting with research teams to understand project details
 - Requires maintaining a network of collaborators and a long list of possible outreach opportunities to match with projects based on the proposal, disciplines involved, and budget
 - Evaluation plans, commensurate with the size of the budget, are typically required
 - Broader impact plans developed in the last year include: National Science Foundation (5), NASA (2), NOAA (1), and NIH (1)
- Collaborate with local teachers, informal educators, and university professors to improve geosciences and climate change education
 - Includes facility tours, speaking engagements (in-person and virtual), and simulations
 - Products developed with external funding are customized curricula, learning materials, teacher training, and digital tools
 - Prioritizes increasing access to STEM for underserved communities
 - Focuses on crosscutting concepts and research-informed practices
 - Includes student/youth development of knowledge, skills, and attitudes
- Organize programs and outreach activities for local schools, community organizations, and Ohio State students related to climate change, geosciences education, and work of the Byrd Polar and Climate Research Center. This includes supervising staff members who intake and coordinate programs as well as working with researchers to develop content and practice delivery.
 - Includes range of experiences: in-person, virtual synchronous, online asynchronous
 - In-person programs reaches approximately 6,500 people per year (was approximately 11,000 before the pandemic)
 - Media collection contains over 450 videos created by my team over the last decade
 - While audience numbers dropped during pandemic and are still recovering, my team virtualized all center programs during the pandemic meaning that no programs were cancelled and outreach efforts were maintained
 - Team continues to provide services with new virtual modalities and monitor best practices
 - I promoted video conferencing within the center and normalized Zoom use years before the pandemic

Products

Fluid Earth: Interactive globe allowing exploration of Earth's atmosphere, oceans, and cryosphere

<https://fluid-earth.byrd.osu.edu/> code repository: <https://github.com/byrd-polar/fluid-earth>

Virtual Ice Explorer: Immersive virtual field trips to Earth's icy regions (enhanced w/use of VR headset)

<https://virtualice.byrd.osu.edu/>

Virtual Rock Box: Online version of physical rock boxes available to teachers (created during COVID)

<https://byrd.osu.edu/virtual-rock-box>

OSU Campus Mesonet: Network of weather stations implemented as a prototype for a statewide network

<https://scoo.byrd.osu.edu/mesonet/dashboard>

Ohio Precipitation Tool (beta): Displaying results of an extreme precipitation analysis for Franklin Co.

<https://ohio-precipitation-tool.byrd.osu.edu>

Farm App (beta): Tool developed to ease farmer compliance with fertilizer and nutrient application laws

<https://farm.bpcrc.osu.edu/>

Selected Publications and Presentations

- Cervenec, J., Vescelius, A., Moore, C., Scholl, J., & Kissel, L. Is It Water? *Science Scope*. [In press]
- Cervenec, J., Peggau, K., Scott, H., Helterbrand, J., Bertolo, V., Scholl, J., Agne, A., White, A., & Scaccia, M. Cartoon Puzzles as a Way for Diverse, Young Audiences to Explore Polar and Geosciences Content: A Product Evolved During the COVID-19 Pandemic. *Journal of STEM Outreach*. <https://doi.org/10.15695/jstem/v9i1.13>
- Gonzalez-Duque, D., Sawyer, A., Whittle, A., Martello, M., Cervenec, J., Knott, J., Boutt, D., & Hereid, K. (2026) From Hydraulic Heads to Dollars and Decision: It's Time to Integrate Groundwater in Coastal Risk Assessment. *Water Resources Research*. <https://doi.org/10.1029/2025WR041035>
- Cervenec, J. (2026). *Reflections of a Climate Change Educator*. Invited PechaKucha presentation to the Environmental Professionals Network Signature Earth Day Event, Columbus, Ohio, April 22, 2026.
- Cervenec, J., Hitzhusen, G., Haufe, C., & Taylor, C. (2026). *Science as a Civic Tool: Unpacking the Process & People for an Informed and Literate Society*. Facilitated panel discussion as part of Midwest Climate Summit, Cleveland, Ohio, March 31, 2026.
- Cervenec, J. (2026). *Climate Change Fundamentals: What You Should Know in 2026*. Invited presentation to Thomas Worthington H.S. PoliRad, Worthington, Ohio, March 26, 2026.
- Cervenec, J. (2026) *Climate Change Fundamentals: What You Should Know in 2026*. Invited presentation to faith and ecology course in Ohio State's School of Environment and Natural Resources, Columbus, Ohio, February 2, 2026.
- Cervenec, J., Davis, G., Wilson, A. B., & Ridgway, A. (2025) Fire at the Wildland Urban Interface in Ohio. <https://kb.osu.edu/handle/1811/106797>
- Cervenec, J., Flierl, M., & Kissel, L. (2025) *Seemingly New Problems in a World with AI: Data Provenance and Trust*. Presentation to Decolonization of Arctic Library and Archives Metadata (DALUM) members, Online, November 18, 2026.
- Cervenec, J. (2025) *Creating Online Opportunities to Learn About Climate Change: Reaching Audiences with Useful and Usable Information*. Invited presentation for Ohio State University One Health conference, Columbus, Ohio, November 6, 2025.
- Cervenec, J., & Davis, G. (2025) *Wildfire at the Wildland Urban Interface in Ohio*. Invited presentation for Ohio Emergency Management Agency Fall Conference, Online, October 16, 2025.
- Lanning, C., Cervenec, J., Murfree, J., Davis, G., & Onate, J. (2025) *Qualitative Survey of Requirements, Recommendations, and Educational Efforts for Extreme Heat and Wildfire Smoke by High School Athletic Associations in the Midwest/Great Lakes Region of the United States*. <https://kb.osu.edu/items/b8f48436-af9d-4e60-bdd3-d3d8f9bc51b4>
- Helterbrand, J., Cervenec, J., & Price, C. (2025) Best Practices for Hosting Public Tours of Research Facilities. *Journal of Museum Education*. <https://doi-org.proxy.lib.ohio-state.edu/10.1080/10598650.2025.2473210>
- Cervenec, J., Fields, J., Davis, G., & Wilson, A.B. (2025) *Project Idea Starter: Climate Change*. OSU Extension Publishing. https://ohio4h.org/sites/ohio4h/files/imce/books_resources/Self-Determined/365-Climate-2024.pdf
- Cervenec, J., & Best, K. (2025) *Climate Change Impacts, Vulnerabilities, and Communication*. Invited presentation for Columbus Public Health conference, Columbus, Ohio, May 28, 2025.
- Cervenec, J., & Davis, G. (2025) *Ohio Weather, Climate, and Climate Change*. Invited presentation for 2025 Portage Soil and Water Education Program, Rootstown, Ohio, March 5, 2025.
- Clark, T., Clark, C., Jeong, S., & Cervenec, J. (2024). Using Content Area Reading to Support an Interdisciplinary Storyline Involving Climate Science. *Journal of Chemical Education*. <https://doi.org/10.1021/acs.jchemed.4c00390>
- Fields, J., Davis, G., Leasor, Z., & Cervenec, J. (2024). ChatGPT in Climatology: Transforming Climate Research with Conversational AI. *Journal of Applied and Service Climatology*.

- https://stateclimate.org/pdfs/journal-articles/2024_4-Fields.pdf Cervenec, J., Fields, J., Davis, G., & Wilson, A.B. (2025) *Project Idea Starter: Climate Change*. OSU Extension Publishing. https://ohio4h.org/sites/ohio4h/files/imce/books_resources/Self-Determined/365-Climate-2024.pdf
- Davis, G., Cervenec, J., Wilson, A., Sohngen, B., Fields, J., Eyerman, J., & Scaccia, M. (2024). Climate and Weather. *Ohio Certified Volunteer Naturalist*. https://extension.osu.edu/sites/ext/files/imce/Extension_Publishing/OCVN-Climate-2024-0625.pdf
- Cervenec, J., Chudley, T., Helterbrand, J., Street, P., & Bertolo, V. (2024). A Safer “Flubber” Recipe. *Connected Science Learning*, 1-5.
DOI: <https://doi.org/10.1080/24758779.2024.2317802>
- Cervenec, J. (2024). *Climate Change: Science, Impacts, Society, and Doing Something*. Invited presentation to Thomas Worthington H.S. PoliRad, Worthington, Ohio, March 20, 2024.
- Cervenec, J. (2024). *Growing as an Act of Climate Change Resilience*. Invited presentation for 2024 Franklin County (Ohio) Master Gardeners Day of Learning. Columbus, Ohio, February 4, 2024.
- Cervenec, J., Mullins, A., Sierra-Hernández, M.R., & Arens, A. (2023). Spanish-Language Virtual Tour of Mount Huascarán in Peru. *Translingual: The Journal of International Voices*. <https://ielp.ehe.osu.edu/files/2023/12/Translingual-V2.-I1.-Final.pdf>
- O'Brien K.R., Price C., Hayde D., Brenner C., Cervenec J., & Gopalakrishnan S. (2023). Utilizing Off-Campus Spaces to Engage Third-Space Labor Across the Disciplines to Build Community Partnership. *Workplace: A Journal for Academic Labor*. October 02; 34. <https://ices.library.ubc.ca/index.php/workplace/article/view/186867>
- Cervenec J., Davis G., Gravina M.T., & Hamilton D. A Tool for Exploring Our Fluid Earth. (2023). *The Physics Teacher*. September; 61(6):432. DOI: <https://doi.org/10.1119/5.0132110>
- Cervenec, J., Davis, G., Peggau, K., Wilson, A., & Mark, B. (2023). 'It's us,' 'there's hope,' and 4 other things we must face about climate change. *The Columbus Dispatch*. July 12. <https://www.dispatch.com/story/opinion/columns/guest/2023/07/12/ohio-state-university-experts-6-facts-we-must-face-about-climate-change-environment-extreme-heat/70399124007/>
- Cervenec, J., Douglas, T., Barbato, R., Druckenmiller, P., Moss, J., Brubaker, M., Liljedahl, A., Helterbrand, J., Peggau, K., Agne, A., & White, A. (2023). *Permafrost Tunnel Virtual Tour*. <https://byrd.osu.edu/permafrost-tunnel-gateway-tour>
- Hamilton, D., Cervenec, J., Maletic, E., & Patterson, J. (2022). A Low-Cost, User-Friendly Technology for Making Samples and Artifacts Accessible to Online Audiences. *Connected Science Learning*, Nov-Dec, Volume 4, Issue 6. <https://www.nsta.org/connected-science-learning/connected-science-learning-november-december-2022/low-cost-user-friendly>
- Peggau, K., Cervenec, J., Van Tassell, E., Fletcher, A., Hogan, S., Kridel, E., & Iverson, E. (2022). Connecting Youth Using Arctic Mystery-Themed Kits. *Journal of STEM Outreach* 5 (1): 1–12. DOI: <https://doi.org/10.15695/jstem/v5i1.06>
- Cervenec, J. (2022). *Intersections of Climate Change and Health*. Invited presentation for Ohio State Department of Internal Medicine Grand Rounds Series, Columbus, OH. September 22.
- Cervenec, J., Fox, J., Peggau, K., Wilson, A. B., Li, B., Hu, D., Chang, R., Wong, J., & Bossley, C. (2022). Interactive data visualizations of Earth’s atmosphere: Effects on student engagement and perceived learning, *Journal of Geoscience Education*, DOI: [10.1080/10899995.2022.2038963](https://doi.org/10.1080/10899995.2022.2038963)
- Gravina, M., Zhan, M., Cai, M., Arens, A., & Cervenec, J. (2022). Fluid Earth: Open-source Visualization of Weather and Climate Data. *GIS Lounge*. <https://www.gislounge.com/fluid-earth-open-source-visualization-weather-climate-data/>
- Harris, K., Krok, K., Hollister, R., & Cervenec, J. (2021). Virtual tours through the ice using everyday tools. *Eos*, 102. <https://doi.org/10.1029/2021EO160631>
- Hunt, M. & Cervenec, J. 2021. *Exploring Polar Science*. Ohio State University Extension Publishing.
- Cervenec, J. (2021). Presentation for City and Regional Planning Students on Development of the Columbus Climate Adaptation Plan. Virtual via Zoom on February 21.

- Cervenec, J. (2021). Presentation for the MetClub at Ohio State on Climate Change Education and Development of Decision-Making Tools. Virtual via Zoom on January 19.
- Cervenec, J. (2020). Invited presentation on Climate Change and Impacts to the Worthington Garden Club. Virtual via Zoom on November 11.
- Cervenec, J. (2020). Invited presentation to Youth Climate Action Team in Southeastern Ohio. Virtual via Zoom November 10.
- Cervenec, J. (2020). Guest lecture on Development of the Columbus Climate Adaptation Plan for an Undergraduate Environment and Natural Resources Class. Virtual via Zoom November 5.
- Cervenec, J., & Wilson, A. B. (2020). Invited presentation on Climate Change for Faith Group Retreat for Church of the Brethren. Virtual via Zoom October 15.
- Cervenec, J., Gravina, M., & Wilson, A. B. (2020). Presentation on Fluid Earth to the AMS Education Section. Virtual via Zoom October 15, 2020.
- Cervenec, J. (2020). Teaching Weather and Climate, presentation for virtual teacher professional development sessions offered by The Ohio State University on August 4.
- Cervenec, J. (2020). An Overview of Climate Change and Its Impacts. Presentation for the Little Garden Club, Columbus, Ohio on February 19.
- Cervenec, J. (2020). Creation of a Climate Change Adaptation Plan for Columbus, Ohio, presentation for City and Regional Planning course on February 5.
- Cervenec, J. (2019). Climate and Weather Workshop, invited workshop at the Appalachian Green Teachers Conference, Burr Oak State Park, Ohio on October 30.
- Cervenec, J. (2019). Climate Change Connections to School Gardening, invited presentation to Ohio 4-H School Gardening Conference, Columbus, Ohio on October 25.
- Cervenec, J. (2019). Changing Climate and Impacts on Ag in Ohio, presentation to Licking County Professional Agrarians, Newark, Ohio on September 10.
- Cervenec, J. & Wilson, A. B. (2019). Presentation for Ohio Farm Bureau Policy Team, Columbus, Ohio on July 12.
- Cervenec, J. (2019). Climate Change, Climate Adaptation, invited presentation for the Wexner Medical Center Green Team, Columbus, Ohio on May 23.
- Cervenec, J. (2019). Building Climate Resilience Demands: Voices Beyond Physical Sciences and Engineering, invited presentation at ROTO as part of COSI STEM Festival, Dublin, Ohio, May 2.
- Cervenec, J. (2019). An Overview of Climate Change and Its Impacts, invited talk at Chalmers Wylie VA, Columbus, Ohio on April 30.
- Cervenec, J. & Wilson, A. (2019). FARM App/Columbus Climate Adaptation Plan, presenters and session conveners for OSU Engagement Forum, Columbus, Ohio on January 23.
- Cervenec, J. (2019). Creation of a Risk and Vulnerability Report for Columbus, Ohio, invited speaker for CCAP at Indiana University, online on January 8.
- Cervenec, J., Wilson, A. B., Dipre, G. R., Shockey, A., & Celebrezze, D. (2018). *Columbus Climate Adaptation Plan*. DOI: <http://hdl.handle.net/1811/86922>
- Cervenec, J. (2018). An Overview of Climate Change and Its Impacts, presentation for the Bexley Garden Club, Bexley, Ohio on November 6.
- Cervenec, J. (2018). An Overview of Climate Change and Its Impacts, presentation for Our Lady of Perpetual Help Parish, Grove City, Ohio on October 1.
- Cervenec, J. & A. Wilson. (2018). From Fields to Forecasts: Participatory Practices for Engaging Farmers in Climate Conversations and Solutions, Great Lakes Adaptation Forum, Ann Arbor, Michigan on September 26.
- Cervenec, J. & A. Wilson. (2018). Creation of a Climate Change Adaptation Plan for Columbus, Ohio, Great Lakes Adaptation Forum, Ann Arbor, Michigan, on September 25.
- Petcovic, H., J. Cervenec, K. Cheek, R. Dahl, N. Price, & E. Pyle. (2018). Research on Elementary, Middle, and Secondary Earth and Space Sciences Teacher Education. In St. John, K. (Ed.). *A Community Framework for Geoscience Education Research*. National Association of Geoscience Teachers: https://nagt.org/nagt/geoedresearch/GER_framework/theme3/index.html

- Wilson, A., J. Cervenec, & G. Dipre. (2018). Building Climate Change Resilience in Columbus through University and Community Engagement, OSU community engagement conference, Columbus, Ohio on January 24.
- Cervenec, J. (2017). Climate Change: Causes, Impacts, and Options, invited talk as part of Diocese of Toledo Care for Our Common Home workshop, Findlay, Ohio on October 4.
- Cervenec, J. (2017). Climate Change: Causes, Impacts, and Options, invited talk for SAVE Organization at Lourdes University, Sylvania, Ohio on September 11.
- Cervenec, J., B.G. Mark, & A. Wilson. (2017). Long-form interview with Joe Cornely on *Town Hall Ohio* on September 7. <https://ofbf.org/2017/09/07/climate-change-town-hall-ohio/>
- Cervenec, J. (2017). Climate and Energy Education for Physical Science and Physics Classrooms, invited talk at 2017 Summer Meeting of American Association of Physics Teachers, Cincinnati, Ohio on July 24.
- Cervenec, J. (2017). Climate Change: A Global Problem Requiring Widespread Solutions, invite talk at St. John XXIII Church, Perrysburg, Ohio on March 24.
- Cervenec, J. (2017). Columbus Climate Change Action Plan Overview presented as part of 2017 GreenSpot Celebration at the Columbus Main Library, Columbus, Ohio on March 24.
- Cervenec, J. & B.G. Mark. (2016). Delivered professional testimony about science and climate to Ohio State Senate committee, Ohio Statehouse, Columbus, Ohio on December 8. Hearing was on House Bill 554 to end freeze on renewable energy standards.
- Cervenec, J. & A. Wilson. (2016). Climate Change Information & Educational Resources, invited talk to Ohio Certified Volunteer Naturalist 2016 State Conference on October 8.
- Gordon, S., J. Cervenec & M. Durand. (2016). Introducing Teachers to Modeling Water in Urban Environments. *Journal of Computational Science Education*, 7(1), 21-26.
- Clark, T.M., J. Cervenec & J. Mamais. (2011). "The Price is Right" for your classroom. *Journal of Chemical Education*, 88(4), 428-431, doi: 10.1021/ed100224w

Current Funded Projects

WestFest: West Campus Science and Sustainability Festival - 2017 to Present

Funding Source: Ohio State Energy Partners and Ohio State Office of Outreach and Engagement (Total Budget: ~\$6,400 in 2017, ~\$25,000 in 2026)

PIs: Jason Cervenec, Courtney Price, Wayne Schlingman, Cynthia Canan, and Kim Winslow

Difficult Subjects: Climate Justice Workshop for Educators - 2022 to Present

Funding Source: OSU's Global Arts & Humanities (Total Budget: ~\$30,000; 0.75 month salary)

PI: Jason Cervenec and Kelsea Best

Collaborative Planning CHIRRP: Integrating Subsurface Hazards Due to Sea Level Rise in the Design of Adaptation Pathways for Coastal Communities

Funding Source: NSF (Total Budget ~\$200,000; 1 month salary)

PI: Jason Cervenec

Weather, Climate, and Your Community: Development of an Ohio 4-H Logbook

Funding Source: Ohio 4-H Donation (Total Budget: ~\$10,000; 0 month salary)

PI: Jason Cervenec

NNA Track 1: Collaborative Research: The Permafrost Discovery Gateway - Navigating the new Arctic tundra through Big Data, artificial intelligence, & cyberinfrastructure

Funding Source: NSF – NNA (Total Budget: ~\$17,500; 0.3 month salary)

PI: Jason Cervenec

CAREER: Transport of air pollutants between mid-latitudes and the polar regions: an 800-year perspective from a Russian Arctic ice-core record

Funding Source: NSF (Total Budget: ~\$780,000; 1.5 months salary)

PI: Emilie Beaudon

CAREER: Tuning kinetics and stability of membrane-catalyst systems for hydrogen production from ammonia

Funding Source: NSF (Total Budget: ~\$510,000; 1.25 months salary)

PI: Shang Zhai

Training a Climate-Ready Workforce to Manage the Impacts of Climate Change on Water Resources in Ohio Coastal Communities

Funding Source: NOAA (Total Budget: ~\$2,600,000; 2.25 months salary)

PI: Lorryne Miralha

ICYCLE: In Situ Ice-Water Chemistry Investigation of Carbon and Life in Extreme Environments

Funding Source: NASA (Total Budget: ~\$30,000; 1 month salary)

PI: Melisa Diaz

WoU-MMA: Cosmic Ray and Background Identification with RNO-G

Funding Source: NSF (Total Budget: ~\$600,000; 1 month salary)

PI: Kaeli Hughes

Past Funded Projects

Collaborative Research: Straight to the Source - Mineral Weathering in Snowbanks and Supraglacial Ice, McMurdo Dry Valleys, Antarctica

Funding Source: NSF (Total Budget ~\$150,000; 0.75 month salary)

PI: Susan Welch and Melisa Diaz

Enhance Climate Services and Equity Outcomes in States

Funding Source: NOAA - National Centers for Environmental Information (Total Budget: ~\$110,000; 2 months salary)

PI: Aaron Wilson

Improving Weather and Climate Understanding and Teaching Among Ohio Environmental Professionals and Volunteers

Funding Source: Ohio State Energy Partners (Total Budget: ~\$40,000; 0.5 month salary)

PI: Jason Cervenec, Geddy Davis, and Anne Baird

Regional Integrated Modeling of Farmer Adaptations to Guide Agroecosystem Management in a Changing Climate

Funding Source: USDA NIFA (Total Budget: \$1,175,500; 0.75 month salary)

Polar Literacy

Funding Source: NSF AISL (Total Budget: \$551,134; 6 months salary)

VAR STW SWMP/MS4 Implementation

Funding Source: JEO Consulting/Ohio Department of Transportation (Total Budget: \$61,211; 0.6 month salary)

The Ohio Precipitation Estimate Tool

Funding Source: Franklin Soil and Water (Total Budget: \$63,858; 0.5 month salary)

REU Supplement for Summer 2021

Funding Source: NSF NNA (Total Budget: \$8,966; 0 months salary)

REU Supplement for Summer 2020

Funding Source: NSF AISL (Total Budget: \$45,629; 0 months salary)

Byrd Center Goldthwait Polar Library Renovation – Phases 1 and 2

Funding Source: OSU Public Spaces Grant and Byrd Center General Fund (Total Budget: \$210,000; 0 months salary)

The Scientist Next Door: Making STEM Accessible Through Storytelling

Funding Source: BETHA (Total Budget: \$105,538 of which \$44,321 from grant; 0.5 month salary matched)

Permafrost Discovery Gateway

Funding Source: NSF NNA (Total Budget: \$106,230; 1 month salary)

OSU Urban Heat Island Study and Instrumentation

Funding Source: OSU Sustainability Grant (Total Budget: \$149,905; 0.5 month salary matched)

Virtual Ice Explorer

Funding Source: NSF AISL (Total Budget: \$299,140; 5 months salary)
Fluid Earth Viewer (FEVer)
 Funding Source: NSF AISL (Total Budget: \$305,000; 6.25 months salary)
OSU Urban Heat Island Study and Instrumentation
 Funding Source: OSU Sustainability Grant (Total Budget: \$149,905; 0.5 month salary matched)
Columbus Climate Action Plan
 Funding Source: Natural Resources Defense Council (Total Budget: \$50,000; 2 months salary)
Installation of Science on a Sphere System and Development of Program Content
 Funding Source: Women & Philanthropy at The Ohio State University, OSU Office of Research, and Byrd Polar and Climate Research Center (Total Budget: \$42,000)
Development of FARM App and Submission of Midwest RISA Center Proposal
 Funding Source: OSU Connect and Collaborate Grant (Total Budget: \$45,000; 0.5 month salary)
Harnessing Education and Technology for Environmental Detection (HEATED)
 Funding Source: BETHA Grant 2014 (Total Budget: \$53,308; 1 month salary)
Ohio Earth Sciences Boot Camp
 Funding Source: Ohio Board of Regents (Total Budget: \$40,368; 0.6 month salary)
Climate Explorations & Climate Collaborative: Bringing Cutting Edge Science & Hands-On Investigations to Your Neighborhood & Building Collective Action on Climate Change Education
 Funding Source: OSU Cares Grant 2014 (Total Budget: \$40,310; 1 month salary)
Argumentation Workshop for Middle and High School Teachers
 Funding Source: Ohio Humanities Council Grant 2014 and Donation to BPRC Education & Outreach Fund (Total Budget: \$7,640)
Connecting Climate Science and Inquiry in K-6 Classrooms
 Funding Source: Ohio Board of Regents – Improving Teacher Quality Grant 2013 (Total Budget: \$102,958; 2.4 months salary)
Classrooms to Geoscience Careers: Developing, Testing and Disseminating a High School Module on Modeling Water in Urban Environments
 Funding Source: NSF 2013 and 2014 (Total Budget: \$149,638; 1.75 months salary)

Contributions to the Geosciences Education, Climate Services, and OSU Communities

2025-present Member of Ohio State University Broader Impacts Working Group, convened by Battelle Center
 2023-2025 Member of Provost's Sustainability Visioning Committee, Community Engagement Subcommittee
 2020-present Co-convenor of OSU's *STEM Impact Collaborative* (Group of STEM Broader Impact Professionals)
 2019-present Co-organizer of *Byrd Center Symposium on Climate Change/Byrd Center Poster Session*
 2018-present Member of Selection Committee for OSU's *Polar Archives Research Award*
 2017-present Founder and Organizing Committee Member for OSU's annual *WestFest: West Campus Science and Sustainability Festival*
 2013-2021 Leader for *Ohio Science Olympiad State Tournament* events (including Dynamic Planet and Remote Sensing for middle and high school)
 2023 Co-organizer, with Geddy Davis and Karina Peggau, of discussions on workforce development for climate resilience and backbone organizations for collective action with Frank Niepold of NOAA, Columbus, OH on February 9
 2022 Co-organizer, with Karina Peggau and Geddy Davis, of discussion on climate justice with Jacqueline Patterson of Chisholm Legacy Project, Columbus, OH on October 20
 2020 Provided technical information to Franklin County Public Health on extreme heat in response to the COVID-19 pandemic, with Aaron Wilson
 2019 Participated in CFAES Legislator Day at the Ohio Statehouse as part of State Climate Office of Ohio

- 2019 Organizing Committee Member for *50th Anniversary Celebration of First All-Women Research Team in Antarctica*, held at the Byrd Center, Columbus, OH on October 17 and 18
- 2019 Host for OSU's *Road Scholar Tour* kick-off site
- 2019 Organizing Committee Member for the *Ohio Climate Services Summit*, a collaboration of the State Climate Office of Ohio and National Weather Service, held at the Byrd Center, Columbus, OH on June 4 and 5
- 2018 Member of panel on climate change and Midwest perceptions for Denison University journalism workshop, Newark, Ohio November 10
- 2018 Served on National Science Foundation Review Panel
- 2015-2017 Chaired the Climate Working Group for the (Columbus) Mayor's Green Team that produced *Climate Change in Columbus Ohio: An Assessment of Columbus' Key Climate Changes, Impacts, and Vulnerabilities of Concern* in collaboration with Great Lakes Integrated Sciences + Assessments
- 2017 Participant in Geoscience Education Research Grand Challenges and Strategies Workshop at 2017 *Earth Educators' Rendezvous*, Albuquerque, New Mexico on July 16 to 19.
- 2016 Served as reviewer for materials in the SERC collection at the *Earth Educators' Rendezvous*, Madison, Wisconsin
- 2015 Served on NASA Review Panel
- 2014 Served on National Science Foundation Review Panel

Service to the Community and Awards

- 2025-present Member of Central Ohio Water Advisory Council
- 2024 Recipient of the *2024 Community Engaged Practitioner Award* given by The Ohio State University Office of Outreach and Engagement
- 2022 Recipient of the Lois M. Jones Award for Science Access, Engagement and Communication given by the Byrd Polar and Climate Research Center
- 2022 Recipient of *The Ohio State University High Impact Program Award* in recognition of exceptional engagement with the community for the *West Campus Science and Sustainability Festival*
- 2014-present Volunteer with Franklin County Juvenile Court, East Side Restorative Justice Circle
- 2015-2021 Member of the Creation Care Team for the Roman Catholic Diocese of Columbus
- 2014-2018 Board Member of Ohio Interfaith Power and Light
- 2015-2017 Member of the Mayor's Green Team for the City of Columbus and Chair of the Climate Change Subcommittee
- 2010 Fulbright Exchange Teacher with the U.S. Department of State in Mumbai, India

Regular Collaborators

OSU Departments & Centers: University Libraries/University Archives; School of Earth Sciences; Geography Department; Astronomy Department; College of Arts and Sciences; College of Food, Agricultural, and Environmental Sciences; OSU Extension; School of Environment and Natural Resources; Kirwan Institute; Office of Academic Affairs; The STEAM Factory; Sustainability Institute; Franklin County Extension; Office of Research; Office of Outreach and Engagement; Wexner Medical Center; College of Medicine; Ohio and Franklin County 4-H

External Institutions: Franklin Park Conservatory & Botanical Gardens; Green Columbus; City of Columbus; Columbus City Schools; MORPC; Franklin County Public Health; Franklin Soil and Water; Ohio Emergency Management and Homeland Security; Ohio Department of Natural Resources; Expanding Visions Foundation; Rural Action; Camp Otway; Central Ohio Library Consortium; NOAA; Rutgers University; Clemson University; University of Alaska – Fairbanks; Woods Hole Research Center; Arctic Data Center; Climate Generation