

Jason Cervenec

Byrd Polar and Climate Research Center, The Ohio State University
1090 Carmack Road, Columbus, Ohio 43210
Phone: 614-688-0080 Fax: 614-292-4697 Email: cervenec.1@osu.edu
Web site: <http://bpcrc.osu.edu/>

Professional Preparation

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

Appointments

2012-present Education & Outreach Director, Byrd Polar and Climate Research Center, 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

Products

Petcovic, H., J. Cervenec, K. Cheek, R. Dahl, N. Price, and E. Pyle. (2018). Research on Elementary, Middle, and Secondary Earth and Space Sciences Teacher Education. In St. John, K. (Ed.) (2018). *A Community Framework for Geoscience Education Research*. National Association of Geoscience Teachers: <https://nagt.org/nagt/geodresearch/GER_framework/theme3/index.html>
Cervenec, J. and A. Wilson. The Science of Climate Change, invited talk to College of Food, Agricultural and Environmental Sciences emeriti and retirees, Upper Arlington, Ohio, 19, March, 2018.
Wilson, A., J. Cervenec, and G. Dipre. Building Climate Change Resilience in Columbus through University and Community Engagement, OSU community engagement conference, Columbus, Ohio, 24, January, 2018.
Cervenec, J. and J. Nicolas. Fluid Earth Viewer, a Freely Available Digital Tool for Investigating Weather and Climate, presentation at Science Education Council of Ohio conference, Lewis Center, Ohio, 30, January, 2018.
Cervenec, J. Climate Change: Causes, Impacts, and Options, invited talk as part of Diocese of Toledo Care for Our Common Home workshop, Findlay, Ohio, 4, October, 2017.
Cervenec, J. Climate Change: Causes, Impacts, and Options, invited talk for SAVE Organization at Lourdes University, Sylvania, Ohio, 11, September, 2017.
Cervenec, J., B.G. Mark, and A. Wilson. Long-form interview with Joe Cornely on Town Hall Ohio, available at <<https://ofbf.org/2017/09/07/climate-change-town-hall-ohio/>>, 7, September, 2017.
Cervenec, J. and A. Wilson. Changing Climate in Ohio: Impacts on Small Farms and Rural Communities, invited talk as part of 2017 Farm Science Review, London, Ohio, 21, September, 2017.
Cervenec, J. Climate and Energy Education for Physical Science and Physics Classrooms, invited talk at 2017 Summer Meeting of American Association of Physics Teachers, Cincinnati, Ohio, 24 July 2017.
Cervenec, J. Research of the Byrd Center, Climate Change Impacts on Ohio, and Local Efforts to Adapt, invited talk as part of workshop for environmental remediation staff, Columbus, Ohio, 31 May 2017.
Cervenec, J. Climate Change: A Global Problem Requiring Widespread Solutions, invite talk at St. John XXIII Church, Perrysburg, Ohio, 24 March 2017.
Cervenec, J. Columbus Climate Change Action Plan Overview presented as part of 2017 GreenSpot Celebration at the Columbus Main Library, Columbus, Ohio, 24 March 2017.

- Cervenec, J. and B.G. Mark. Delivered professional testimony about science and climate to Ohio State Senate committee, Ohio Statehouse, Columbus, Ohio, 8 December 2016. Hearing was on House Bill 554 to end freeze on renewable energy standards.
- Cervenec, J. Climate Changes, Impacts, and Vulnerabilities Report Overview. Sierra Club and National Wildlife Federation program at The Ohio State University, Columbus, Ohio, November 2016.
- Cummings, T.R., J. Cervenec, and A. Wilson. Development of a Mobile Sensor Platform for Micro-scale Climate and Air Quality Monitoring at Innovative Environmental Monitoring Technology Symposium, Athens, Ohio, 17-18 October 2016.
- Cervenec, J. and A. Wilson. Climate Change Information & Educational Resources, invited talk to Ohio Certified Volunteer Naturalist 2016 State Conference, 8 Oct 2016.
- Cervenec, J. Create Classroom Ice Cores, presented at 2016 Earth Educators Rendezvous, Madison, Wisconsin, 18-22 July 2016.
- Gordon, S., J. Cervenec and M. Durand. 2016. Introducing Teachers to Modeling Water in Urban Environments. *Journal of Computational Science Education*, 7(1), 21-26.
- Cervenec, J. Climate Change: Information and Education Resources, presented as part of Research to Practice Webinar Series for Ohio Certified Volunteer Naturalists, online webinar, 9 Mar 2016.
- GLISA. Climate Change in Columbus Ohio: An Assessment of Columbus' Key Climate Changes, Impacts, and Vulnerabilities of Concern, March 2016, available online at <http://bpcrc.osu.edu/greenteam>.
- Cervenec, J. and P. Gabrielli. Climate Change Science and Communication, presented for a Polar Educators International Master Class, online webinar, 25 Feb 2016.
- Cervenec, J. and M. Durand. Teaching the Water Cycle and Watersheds Using Hands on Experiments and Online Tools, presented at 2016 Ohio Science Institute, Columbus, Ohio, 25-26 Jan 2016.
- Cervenec, J. and A. Wilson. Climate Change Information & Educational Resources, presented at 2016 Ohio Science Institute, Columbus, Ohio, 25-26 Jan 2016.
- Cervenec, J. and M. Durand. From classrooms to geosciences careers: developing and testing a curriculum module and web application for modeling water in urban environments, Abstract ED11A-3391 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec 2014.
- Cervenec, J.M., G. Hitzhusen, S. Ward and C. Foster. A science-faith partnership to provide education and facilitate action on climate change and energy, Abstract ED22A-08 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec 2014.
- Cervenec, J. and C.E. Landis. Experiences & tools from modeling instruction applied to earth Sciences, Abstract ED13B-0782 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec 2012.
- Landis, C.E. and J. Cervenec. Arctic forecasts available from polar bear exhibit as an example of formal/informal collaboration, Abstract ED31C-08 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec 2012.
- Clark, T.M., J. Cervenec and J. Mamais. 2011. "The Price is Right" for your classroom. *Journal of Chemical Education*, 88(4), 428-431, doi: 10.1021/ed100224w.
- Cervenec, J. 2009. Stuck in grade nine? Modeling instruction in freshman physical science (Invited talk), presented at American Association of Physics Teachers Summer Meeting, An Arbor, Michigan July 2009, Session FD: Modeling Instruction in Physics.
- Cervenec, J., K. Harper, and A. Heckler. 2005. Professional development for standards-based physical science education using modeling physics, Abstract TP-C2 presented at Physics Education Research Conference: Connecting Physics Education Research (PER) to Teacher Education at All Levels: K-20, 10-11 August 2005, University of Utah, Salt Lake City.

Synergistic Activities

- Build climate change, sustainability, and science education partnerships at The Ohio State University, within Columbus, and throughout Ohio

- Collaborate with local teachers and university professors to improve geosciences education, focus on crosscutting concepts, and support the transition to the Common Core and Next Generation Science Standards
- 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
- Coordinate undergraduate employees and high school interns at the Byrd Polar and Climate Research Center
- Fulbright Exchange Teacher with the U.S. Department of State in Mumbai, India, 2010

Collaborators

Joel Barker, OSU; Jim DeGrand, OSU; Michael Durand, OSU; Jill Jentes, OSU; Laura Kissel, OSU; Bryan Mark, OSU; Claire Monk, New Albany-Plain Local Schools; Chris Moore, Olentangy Local Schools; Andrea Vesceius, Olentangy Local Schools; Aaron Wilson, OSU; Geoff Dipre, OSU; Jane Wright, OSU; Janice McDonnell, Rutgers

Current Funded Projects

Virtual Ice Explorer

Funding Source: NSF (Total Budget: \$299,140; 5 months salary)

Fluid Earth Viewer (FEVer)

Funding Source: NSF (Total Budget: \$305,000; 6.25 months salary)

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; 2 weeks salary)

Harnessing Education and Technology for Environmental Detection (HEATED)

Funding Source: BETHA Grant 2014 (Total Budget: \$53,308; 1 month salary)

Past Funded Projects

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 Community

2018 Served on National Science Foundation Review Panel

- 2017 Participant in Geoscience Education Research Grand Challenges and Strategies Workshop at 2017 Earth Educators' Rendezvous, Albuquerque, New Mexico, 16-19 July 2017.
- 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
- 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 Local Community

- 2014-Present Volunteer with Franklin County Juvenile Court, East Side Restorative Justice Circle
- 2015-Present 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