

AARON B. WILSON, PH.D.

Assistant Professor, Ag Weather and Climate Field Specialist – Department of Extension,
College of Food, Agricultural, and Environmental Sciences

Atmospheric Research Scientist – Byrd Polar and Climate Research Center

State Climatologist

Affiliated Faculty – Sustainability Institute

The Ohio State University

Extension Liaison – USDA Midwest Climate Hub

1090 Carmack Rd., 108 Scott Hall, Columbus, Ohio 43210

Tel. (W): (614) 292-7930, Tel. (C): (937) 681-6648

Email: wilson.1010@osu.edu Website: <https://osu.edu/wilson.1010>

EDUCATION

<i>Ph.D.</i>	Atmospheric Sciences Program	The Ohio State University	2013
<i>M.S.</i>	Atmospheric Sciences Program	The Ohio State University	2010
<i>B.S.</i>	Atmospheric Sciences Program	The Ohio State University	2002

PROFESSIONAL APPOINTMENTS

2022-present:	Assistant Professor – Agriculture Weather and Climate Field Specialist, Department of Extension – College of Food, Agricultural, and Environmental Sciences, OSU
2022-present	State Climatologist, State Climate Office of Ohio
2021-present	Extension Liaison, USDA Midwest Climate Hub
2018-2022:	Research Scientist, Byrd Polar and Climate Research Center, OSU
2017-2022:	Climate Specialist, Extension, OSU
2016-2018:	Senior Research Associate, BPCRC and OSU Extension, OSU
2013-2016:	Research Associate II, Polar Meteorology Group, BPCRC, OSU
2013:	Graduate Research Associate, Educational Outreach, BPCRC, OSU
2008-2012:	Graduate Research Associate, Polar Meteorology Group, BPCRC, OSU

PROFESSIONAL SPECIALTIES

Applied meteorology and climatology, Climate variability and change, Agricultural weather and climate, Outreach and Engagement, , Polar weather and climate, Tropical teleconnections

GRANTS

ACTIVE:

Project/Proposal Title:	Accelerating the Transition to Climate-Smart Strategies by Bolstering the Extension to Midwest Climate Hub Connection
Role:	PI
Source of Support:	USDA AFRI-FAS
Award Amount:	\$1,485,677
Period Covered:	01/01/2022 – 12/31/2024
Location of Project:	Columbus, OH – The Ohio State University
Months Committed:	1 mo. each year over entire project

Project/Proposal Title:	Enhancing Local Weather and Climate Data to Advance Ohio Soybean
Role:	PI
Source of Support:	Ohio Soybean Council
Award Amount:	\$80,000
Period Covered:	01/01/2023 – 06/30/2024
Location of Project:	Columbus, OH – The Ohio State University
Months Committed:	N/A
Project/Proposal Title:	VAR STW SWMP/MS4 Implementation
Role:	PI
Source of Support:	Ohio Department of Transportation – JEO Consulting Sub Contract
Award Amount:	\$61,211
Period Covered:	08/01/2023 – 07/31/2026
Location of Project:	Columbus, OH – The Ohio State University
Months Committed:	0.25 each year over entire project
Project/Proposal Title:	ADVANCEA: Advancing Controlled Environment Agriculture through Data-Driven Decision Making
Role:	Co-PI
Source of Support:	USDA NIFA
Award Amount:	\$3,773,807
Period Covered:	09/01/2022 – 08/31/2026
Location of Project:	Columbus, OH – The Ohio State University
Months Committed:	0.5 each year over entire project
Project/Proposal Title:	FORAGE: Fall armyworm Outreach and Research for Alfalfa Growers and Educators
Role:	Co-PI
Source of Support:	USDA NIFA
Award Amount:	\$899,606
Period Covered:	09/01/2022 – 08/31/2025
Location of Project:	Columbus, OH – The Ohio State University
Months Committed:	1 mo. each year over entire project
Project/Proposal Title:	Midwest Climate Hub Extension Liaison
Source of Support:	Agricultural Research Service – USDA Midwest Climate Hub
Role:	PI
Award Amount:	\$65,000
Period Covered:	09/01/2021-08/31/2024
Location of Project:	Columbus, OH – The Ohio State University
Months Committed:	3 mos. each year over the entire project
Project/Proposal Title:	From the Ground Up: Using on-farm research and collaboration to accelerate adoption of climate-smart agricultural practices in the Midwest.

Role: Co-PI
Source of Support: USDA-NIFA SAS
Award Amount: \$9,994,883
Period Covered: 06/01/2024 – 05/31/2029
Location of Project: Columbus, OH – The Ohio State University
Months Committed: 0.5 mo. each year over entire project

PENDING:

Project/Proposal Title: **Experiencing Climate-Smart Agriculture in Ohio to Enhance Extension Engagement**

Role: PI
Source of Support: AgTech Innovation Hub
Award Amount: \$148,909.07
Period Covered: 06/01/2024 – 05/30/2025
Location of Project: Columbus, OH – The Ohio State University
Months Committed: 1 mon. each year over entire project

Project/Proposal Title: **Mitigating Climate Risk to Agriculture by Enhancing the Ohio Mesonet**

Role: PI
Source of Support: AgTech Innovation Hub
Award Amount: \$149,362.62
Period Covered: 06/01/2024 – 05/30/2025
Location of Project: Columbus, OH – The Ohio State University
Months Committed: 1 mon. each year over entire project

PAST:

Project/Proposal Title: **Regional Integrated Modeling of Farmer Adaptations to Guide Agroecosystem Management in a Changing Climate**

Role: Co-PI
Source of Support: USDA-NIFA
Award Amount: \$1,199,456
Period Covered: 08/01/2018 – 12/31/2023
Location of Project: Columbus, OH – The Ohio State University
Months Committed: 1.75 mos. each year over the entire project

Project/Proposal Title: **OPE: Ohio Precipitation Estimate Tool**

Role: Co-PI
Source of Support: Franklin Soil and Water Conservation District
Award Amount: \$63,858
Period Covered: 12/01/2022 – 10/31/2023
Location of Project: Columbus, OH – The Ohio State University
Months Committed: 0.25 mo. each year over entire project

Project/Proposal Title:	Collaborative Research: NNA Track 1: The Permafrost Discovery Gateway - Navigating the New Arctic Tundra through Big Imagery, Artificial Intelligence, & Cyberinfrastructure
Role:	Co-PI
Source of Support:	NSF
Award Amount:	\$160,230
Period Covered:	11/01/2019 – 10/31/2023
Location of Project:	Columbus, OH – The Ohio State University
Months Committed:	0.34 mo. each year over entire project

Project/Proposal Title:	Developing an Objective, Impacts-Based Framework for Drought Mitigation in Ohio (Co-PI)
Source of Support:	NOAA-UCAR Climate Adaptation and Mitigation Program (CAMP) Continuation (SUBAWD002253)
Award Amount:	\$185,633
Period Covered:	08/01/2020 – 07/31/2022
Location of Project:	Columbus, OH – The Ohio State University
Months Committed:	2.0 mos. each year

RECENT INVITED PRESENTATIONS

2024

- Tri-State Green Industry Annual Meeting. Cincinnati, OH.
<https://hamilton.osu.edu/program-areas/agriculture-and-natural-resources/tri-state-industry-conference>
- Midwest DEWS Webinar. Virtual. <https://www.drought.gov/webinars/midwest-dews-webinar-developing-impacts-based-framework-drought-mitigation-ohio>.

2023

- Annual Byrd Symposium on Climate Change Research. Columbus, OH.
<https://byrd.osu.edu/2023-byrd-center-symposium-climate-change-research>.
- Climate, Water, Equity, and Opportunity Workshop. Land-grant leaders in action: Addressing climate across institutions Denver, CO. <https://northcentralwater.org/climate-water-equity-and-opportunity-workshop/>
- Greater Dayton Partners for the Environment Fall Event. Communicating the Science of Climate Change. Yellow Springs, OH
- Ohio Statewide Floodplain Management Conference. Columbus, OH.
- EPN Breakfast: Changing Rivers. Columbus, OH. <https://epn.osu.edu/events/changing-rivers-enhancing-natural-and-social-wellbeing-ohio-alongside-more-floods-and-warmer>
- 20th CCA Conference and Annual Meeting. London, Ontario, Canada.
- Master Gardeners Day of Education. Columbus, OH.
<https://chadwickarboretum.osu.edu/events/2023-volunteer-day-education-conference>

2022

- Department of Agricultural, Environmental, and Development Economics Fall Agricultural Outlook and Policy Meeting. Columbus, Ohio. <https://aede.osu.edu/news/2022-agricultural-policy-and-outlook-conference>
- Illinois Climate Summit. Virtual
- Ohio Department of Health and Ohio Emergency Management Agency EOC. Virtual
- Ohio Public Private Partnership (OP3) Statewide Fall Conference. Columbus, Ohio. <https://homelandsecurity.ohio.gov/our-programs/ohio-public-private-partnership/op3-conferences>
- Energy Exchange. Cincinnati, Ohio. <https://www.energy-exchange.com/wp-content/uploads/EEX2022-Agenda-at-Glance.pdf>
- Center for Excellence Field Day. Morenci, Michigan
- National Soil Moisture Network Annual Conference. Columbus, Ohio. <https://www.drought.gov/sites/default/files/events/National%20Soil%20Moisture%20Workshop%202022%20Full%20Agenda.pdf>
- North Central Region Mini Land-Grant Conference. Columbus, Ohio. <https://lod.cfaes.ohio-state.edu/career-development/2022-mini-land-grant-conference>
- CURA Summer Series – Impacts of Intel. Virtual
- CIFT Agribusiness Forum. Virtual
- Miami Valley Regional Planning Commissions Climate Change Seminar. Dayton, Ohio
- Waste to Worth Conference. Oregon, Ohio. <https://lplc.org/waste-to-worth/waste-to-worth-2022/waste-to-worth-2022-agenda/waste-to-worth-2022-daily-agenda/>
- Williams County SWCD Tri-County Soil Health Workshop Soil Health Workshop. March 2022.
- Ohio Department of Agriculture Working Group. March 2022.
- Ohio State Agency Director's Meeting (ODA, ODNR, Great Lakes, and Ohio EMA). Virtual
- Ohio Federation of Soil and Water Conservation Districts Annual Meeting. Columbus, Ohio

RECENT EXTENSION ENGAGEMENTS

2024

- Hardin County Extension Breakfast Series. *Climate Smart – Farming with Weather Extremes*. Mt. Victory, Ohio.
- Central Ohio Agronomy School – Knox County. *Weather Trends Affecting Ohio Ag*. Mt. Vernon, Ohio.

2023

- Ohio Maple Days. *Not so Sweet: Weather & Climate Impacts on Syrup Making*. Ashland, Ohio.
- Ohio Green Industry Association's midWest Green Conference. *Weather and Climate Impacts on the Green Industry*. Columbus, Ohio.

- Butler County Extension. *Climate Change and Adaptation: Climate, Water, Nature Oh My!* Fairfield, Ohio.
- Ohio Master Gardeners Advanced Weeds Specialization Program. *Climate Change and Weeds*. Delaware, Ohio.
- Franklin County Farm Bureau Annual Meeting. *Weather Extremes: The New Normal?* Columbus, Ohio.
- Ohio Federation of Soil and Water Conservation Districts. *Adapting to Wild Weather Extremes*. West Chester, Ohio.
- OSU ANR Annual Retreat. *Climate Smart Agriculture and Forestry and H2Ohio Panel (Co-Moderator)*. Newbury, Ohio.
- Miami Valley Career Technology Center FFA. *Weather is Always on My Mind*. Columbus, Ohio.
- Upper Arlington First Community Retirement Center. *Weather is Always on My Mind*. Columbus, Ohio.
- Franklin County Garden Club. *Weather is Always on My Mind*. Columbus, Ohio.
- NE Ohio Agronomy School. *Weather and Climate Update*. Orwell, Ohio.
- Ross County Farmers Club. *2023 Weather Outlook*. Chillicothe, Ohio.
- Delaware County Master Gardeners Training. *Changing Climate in Ohio: Gardening and Ag Perspectives*. Delaware, Ohio.
- Chi Epsilon Pi. *Weather and Climate Communication*. Columbus, Ohio.
- Ohio River Valley Woodland & Wildlife Workshop. *The Impacts of Climate Change*. Loveland, Ohio.
- Conservation Tillage & Technology Conference. *Short- and Long-term Weather & Climate Considerations for Planting*. Ada, Ohio.
- Conservation Tillage & Technology Conference. *Overview of Climate Change Effects*. Ada, Ohio.
- Conservation Tillage & Technology Conference. *Industry Panel: Climate, Climate Change, Drought Stress, and Interseeding in Cropping Systems*. Ada, Ohio.
- Madison County Ag Breakfast. *2023 Central Ohio Weather Outlook*. Plain City, Ohio.
- Ohio Department of Ag Certified Livestock Training. *Climate Change and Agriculture*. Reynoldsburg, Ohio.
- Ohio Green Industry Association. *Weather Affects All of Us*. Virtual.
- Defiance County Ag Night. *2023 Weather Outlook*. Defiance, Ohio.
- Trumbull County Soil and Water Conservation District. *Weather, Climate, and Agriculture*. Virtual.
- Ohio Seed Improvement Association. *Climate Change in Ohio: Impacts on Ohio Seed Industry*. Waldo, Ohio.
- NW Ohio Agronomy Day. *Agricultural Weather & Climate Update*. Deshler, Ohio.
- Wayne County Ag Outlook. *2023 Weather Outlook*. Wooster, Ohio.

- Northern Ohio Crops Day. *Weather Trends and Impacts on Planting, Spraying, and Fertilizing*. Gibsonburg, Ohio.
- Ohio Ecological Food and Farm Association. *Sustainable and Organic Farming Systems and the Pursuit of Climate Change Readiness*. Newark, Ohio.
- Ag Pro Expo. *Changing Weather and its Impacts on Agriculture*. Millersburg, Ohio.
- Fruit and Vegetable Workshop. *Extreme Weather and Impacts on Fruit and Vegetable Production*. Zanesville, Ohio.
- Darke County Ag Outlook. *2023 Weather Outlook*. Greenville, Ohio.
- Future Generations Out of the Woods: Enriching Your Maple Business. *Weather Trends and Impacts on your Sugarbush*. Virtual.
- Muck School. *Weather Trends That Change Our Farm Operations*. Willard, Ohio.

2022

- 2022 Extension Annual Conference. *Climate Change Across Extension Roundtable*. Columbus, Ohio.
- OSU Extension ANR Pesticide In-service. *Climate Change: Impacts on Ohio's Crops and How We Can Adapt*. Columbus, Ohio.
- Ashland County Soil and Water Conservation District's Annual Meeting. *Weather and Climate Challenges and the Role of Conservation in Building Resilience*. Loudonville, Ohio.
- Richland County Soil and Water Conservations District's Annual Meeting. *What's Up with the Weather?* Lexington, Ohio.
- Highland Heights Green Task Force: *Climate Change and What We Can Do*. Highland Heights, Ohio.
- Farm Science Review (Gwynn Cabin): *Building Climate Resilience for Farmers and Natural Resources*. London, Ohio.
- Farm Science Review (Small Farms): *Exploring Weather Observations & Equipment Options for the Small Farm (Ohio Mesonet)*. London, Ohio.
- Farm Science Review (Ask the Expert). *Weathering the Extremes in Ag*. London, Ohio.
- Molly Caren Agricultural Center Farm Science Review Volunteer Annual Training. *Your Climate Change*. London, Ohio.
- FFA Day for OSU Baseball. *Ohio's Changing Climate*. Columbus, Ohio.
- Pickaway Farmer's Club Meeting. *Ohio's Weather and Climate*. Ashville, Ohio.
- Darke County Ag Outlook Meeting. *Ohio's Changing Climate*. Greenville, Ohio.
- Conservation Tillage and Technology Conference. *Climate and Carbon Marketing*. Ada, Ohio.
- Agricultural and Horticultural Field Crop Webinar. *Inversions and Drift*. Virtual.
- Mercer County Ag Education Series. *Ohio's Changing Weather and 2022 Outlook*. Celina, Ohio.
- Ohio Pesticide Commercial Applicator Recertification Conference: *Inversions and Drift*. Dayton, Akron, Columbus, Ohio.

- OSU Extension Beef Team Winter Webinar Series. *Weather Impacts on Beef Production*. Virtual.
- Franklin County Master Gardeners Volunteers Training. *Climate Change and Your Garden*. Columbus, Ohio.
- Fulton County Ag Series. *Building a Weather Resilient Farm*. Wauseon, Ohio.
- Putnam County Agronomy Night. *Weathering the Agronomic Ups and Downs in Ohio*. Kalida, Ohio.
- Regional Outlook and Policy Meeting: *Ohio's Changing Climate*. Wilmington, Wooster, Ohio.
- Friday's Escape to the Forest Webinars. *Extreme Weather and Other Climate Change Considerations in Maple Syrup Production*. Virtual.
- Statewide Master Gardener's Webinar. *Extremes and Diseases and Invasives, oh my! Adapting to Climate Change in the Garden*. Virtual.

PUBLICATIONS

Peer-reviewed

1. Avila-Diaz, A.; Torres, R.R.; Zuluaga, C.F.; Cerón, W.L.; Oliveira, L.; Benezoli, V.; Rivera, I.A.; Marengo, J.A.; Wilson, A.B., and Medeiros, F. (2022). Current and Future Climate Extremes Over Latin America and Caribbean: Assessing Earth System Models from High Resolution Model Intercomparison Project (HighResMIP). *Earth Systems and Environment*, doi:10.1007/s41748-022-00337-7, issn: 2509-9426.
2. Wilson, A.B.; Avila-Diaz, A.; Oliveira, L.F.; Zuluaga, C.F.; Mark, B. (2022). Climate extremes and their impacts on agriculture across the Eastern Corn Belt Region of the U.S. *Weather and Climate Extremes*, 37, doi:10.1016/j.wace.2022.100467, issn: 2212-0947.
3. Cervenec, J.; Fox, J.; Peggau, K.; Wilson, A.; 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 Geosciences Education*, 70 (4), 517-529. doi:10.1080/10899995.2022.2038963, issn: 1089-9995.
4. Li, Y.; Liu, Y.; Bohrer, G.; Cai, Y.; Wilson, A.; Hu, T., Wang, Z., and Zhao, K. (2022). Impacts of forest loss on local climate across the conterminous United States: Evidence from satellite time-series observations. *Science of the Total Environment*, 802, doi:10.1016/j.scitotenv.2021.14965, issn: 1879-1026.
5. Porter, S.E.; Mosley-Thompson, E.; Thompson, L.G.; Wilson, A.B. (2021). Reconstructing an interdecadal pacific oscillation index from a pacific basin-wide collection of ice core records. *Journal of Climate*, 34 (10), 3839-3852. doi:10.1175/JCLI-D-20-0455.1, issn: 0894-8755.
6. Justino, F.; Bromwich, D.; Wilson, A.B.; Silva, A.; Avila-Diaz, A.; Fernandez, A.; Rodrigues, J. (2021). Estimates of temporal-spatial variability of wildfire danger across the Pan-Arctic and extra-tropics. *Environmental Research Letters*, doi:10.1088/1748-9326/abf0d0, issn: 1748-9326.
7. Avila-Diaz, A.; Bromwich, D.H.; Wilson, A.B.; Justino, F.; Wang, S.H. (2021). Climate Extremes across the North American Arctic in Modern Reanalyses. *Journal of Climate*, 34 (7), 2385-2410. doi:10.1175/JCLI-D-20-0093.1, issn: 0894-8755.

8. Zuluaga, C.F.; Avila-Diaz, A.; Justino, F.B.; Wilson, A.B. (2021). Climatology and trends of downward shortwave radiation over Brazil. *Atmospheric Research*, 250, doi:10.1016/j.atmosres.2020.105347, issn: 0169-8095.
9. Avila-Diaz, A.J.; Justino, F.; Torres, R.; Wilson, A.B. (2020). Assessing current and future trends of climate extremes across Brazil using reanalyses and Earth System Model projections. *Climate Dynamics*, 55, 1403-1426, doi.org/10.1007/s00382-020-05333-z, issn: 1432-0894.
10. Avila-Diaz, A.J.; Abrahão, G.; Justin, F.; Torres, R.; Wilson, A.B. (2020). Extreme climate indices in Brazil: Evaluation of downscaled Earth System Models at horizontal resolution. *Climate Dynamics*, 54, 5065-5088, doi.orh/10.1007/s00382-020-05272-9., issn: 1432-0894.
11. Justino, F.; Wilson, A.B.; Bromwich, D.H.; Avila, A.; Bai, L.S.; Wang, S.H. (2019). Northern hemisphere extratropical turbulent heat fluxes in ASRv2 and global reanalyses. *Journal of Climate*, 32 (7), 2145-2166. doi:10.1175/JCLI-D-18-0535.1, issn: 0894-8755.
12. Justino, F.; Kucharski, F.; Lindemann, D.; Wilson, A.B., and Stordal, F. (2019). A modified seasonal cycle during MIS31 superinterglacial favors stronger ENSO variability. *Climate of the Past*, 15, 735-749, doi: 10.5194/cp-15-735-2019., issn: 1814-9332.
13. Bromwich, D.H.; Wilson, A.B.; Bai, L.; Liu, Z.; Barlage, M.; Shih, C.F., Maldonado, S., Hines K.M., Wang, S.-H., Woollen, J., Kuo, B., Lin, H.-C., Wee, T.-K., Serreze, M.C., and Walsh, J.E. (2018). The arctic system reanalysis, version 2. *Bulletin of the American Meteorological Society*, 99 (4), 805-828. doi:10.1175/BAMS-D-16-0215.1, issn: 0003-0007.
14. Justino, F.; Lindemann, D.; Kucharski, F.; Wilson, A.B.; Bromwich, D.; and Stordal, F. (2017). Oceanic response to changes in the WAIS and astronomical forcing during the MIS31 superinterglacial. *Climate of the Past*, 13, 1081-1095, doi:10.5194/cp-13-1081-2017, issn: 1814-9332.
15. Nicolas, J.P.; Vogelmann, A.M.; Scott, R.C.; Wilson, A.B.; Cadeddu, M.P.; Bromwich, D.H., Verlinde, J., Lubin, D., Russell L.M., Jenkinson, C., Powers, H.H., Ryczek, M., Stone, G., and Wille, J. (2017). January 2016 extensive summer melt in West Antarctica favoured by strong El Niño. *Nature Communications*, 8, doi:10.1038/ncomms15799, issn: 2041-1723.
16. Avila, A.; Justino, F.; Wilson, A.B.; Bromwich, D., Amorim, M. (2016): Recent precipitation trends, flash floods and landslides in southern Brazil. *Environ. Res. Lett.*, **11**, 114029, doi: 10.1088/1748-9326/11/11/114029, issn: 1748-9326.
17. Moore, G.W.K.; Bromwich, D.H.; Wilson, A.B.; Renfrew, I.; Bai, L. (2016). Arctic System Reanalysis improvements in topographically forced winds near Greenland. *Quarterly Journal of the Royal Meteorological Society*, 142 (698), 2033-2045. doi:10.1002/qj.2798, issn: 1477-870x.
18. Goodwin, B.P.; Mosley-Thompson, E.; Wilson, A.B.; Porter, S.E.; Roxana Sierra-Hernandez, M. (2016). Accumulation variability in the Antarctic Peninsula: The role of large-scale atmospheric oscillations and their interactions. *Journal of Climate*, 29 (7), 2579-2596. doi:10.1175/JCLI-D-15-0354.1, issn: 0894-8755.
19. Wilson, A.B.; Bromwich, D.H.; Hines, K.M. (2016). Simulating the mutual forcing of anomalous high southern latitude atmospheric circulation by El Niño flavors and the southern annular mode. *Journal of Climate*, 29 (6), 2291-2309. doi:10.1175/JCLI-D-15-0361.1, issn: 0894-8755.
20. Bromwich, D.H.; Wilson, A.B.; Bai, L.S.; Moore, G.W.K.; Bauer, P. (2016). A comparison of the regional Arctic System Reanalysis and the global ERA-Interim Reanalysis for the

Arctic. Quarterly Journal of the Royal Meteorological Society, 142 (695), 644-658.
doi:10.1002/qj.2527, issn: 1477-870x.

21. Wilson, A.B.; Bromwich, D.H.; Hines, K.M.; Wang, S.H. (2014). El Niño flavors and their simulated impacts on atmospheric circulation in the high Southern latitudes. Journal of Climate, 27 (23), 8934-8955. doi:10.1175/JCLI-D-14-00296.1, issn: 0894-8755.
22. Bromwich, D.H.; Nicolas, J.P.; Monaghan, A.J.; Lazzara, M.A.; Keller, L.M.; Weidner, G.A.; Wilson, A.B. (2013). Central West Antarctica among the most rapidly warming regions on Earth. Nature Geoscience, 6 (2), 139-145. doi:10.1038/ngeo1671 Erratum: doi:10.1038/ngeo2016, issn: 1752-0894.
23. Wilson, A.B.; Bromwich, D.H.; Hines, K.M. (2012). Evaluation of polar WRF forecasts on the arctic system reanalysis domain: 2. Atmospheric hydrologic cycle. Journal of Geophysical Research Atmospheres, 117 (4), doi:10.1029/2011JD016765, issn: 2169-8996.
24. Wilson, A.B.; Bromwich, D.H.; Hines, K.M. (2011). Evaluation of Polar WRF forecasts on the Arctic System Reanalysis domain: Surface and upper air analysis. Journal of Geophysical Research Atmospheres, 116 (11), doi:10.1029/2010JD015013, issn: 2169-8996.

Non-Refereed

Hawkins, E.; et al., 2023: 2022 eFields Report. Ohio State University, Columbus, Ohio, United States. 244pp. [Available online at https://issuu.com/efields/docs/efields_2022_final].

Ruff, G.; et al., 2022: 2022 eBarns Report. Ohio State University, Columbus, Ohio, United States. 88pp. [Available online at https://issuu.com/efields/docs/ebarns_2022_final].

Hawkins, E.; et al., 2022: 2021 eFields Report. Ohio State University, Columbus, Ohio, United States. 308pp. [Available online at <http://go.osu.edu/eFields>].

Hawkins, E. et al., 2021: 2020 eFields Report. Ohio State University, Columbus, Ohio, United States. 260pp. [Available online at <http://go.osu.edu/eFields>].

Hawkins, E. et al., 2020: 2019 eFields Report. Ohio State University, Columbus, Ohio, United States. 218pp. [Available online at <http://go.osu.edu/eFields>].

Hawkins, E. et al., 2019: 2018 eFields Report. Ohio State University, Columbus, Ohio, United States. 194pp. [Available online at <http://go.osu.edu/eFields>].

Cervenec, J., **A. B. Wilson**, G. R. Dipre, A. Shockey, D. Celebrezze. Columbus Climate Adaptation Plan. 2018. doi: <http://hdl.handle.net/1811/86922>. [Available online at <https://byrd.osu.edu/columbus>].

CREATIVE WORKS

Moving Images

1. (2023) Battle of the Belt: Episode 20 [Moving Image]. Content Expert. Distributed By: Youtube – 94 views. Retrieved from: <https://www.youtube.com/watch?v=46DQ3-Ub5rs>.
2. (2023) Battle of the Belt: Episode 10 [Moving Image]. Content Expert. Distributed By: Youtube – 173 views. Retrieved from: <https://www.youtube.com/watch?v=wbYtQZXc-lc&t=1s>.

3. (2023) Battle of the Belt: Episode 7 [Moving Image]. Content Expert. Distributed By: Youtube – 168 views. Retrieved from: <https://www.youtube.com/watch?v=8Ii4SjN93Pk>.
4. (2023) Battle for the Belt: Episode 3 [Moving Image]. Content Expert. Distributed By: Youtube. – 230 views. Retrieved from: <https://www.youtube.com/watch?v=Tbj62wuyr-4>.
5. (2022). 2022 NCR Mini Land-Grant Conference. [Moving Image]. Content Expert. Distributed By: Youtube – 75 views. Retrieved from: <https://www.youtube.com/watch?v=b5qnLVr8EdM>.
6. (2021). Weather and Ag Health – Carline Presentation. [Moving Image]. Content Expert. Distributed by: Youtube – 56 views. Retrieved from: <https://www.youtube.com/watch?v=uO1sD-BwN9U>.
7. (2021). Corn Sweat and the Water Cycle [Moving Image]. Content Expert. Distributed By: Youtube – 37 views; Used in Extension's iFarm Immersive Theater. Retrieved from: <https://www.youtube.com/watch?v=hk-yM4AS3es>.

Multimedia/Database/Websites

1. Wilson, A.; Davis, G.; Cervenec, J; Kashani-Motlagh, J. (2023). State Climate Office of Ohio, Website. Retrieved from: <https://climate.osu.edu/>.
2. Wilson, A.; Davis, G.; Cervenec, J; Kashani-Motlagh, J. (2023). State Climate Office of Ohio, Facebook. Retrieved from: <https://www.facebook.com/ohioclimate>.
3. Wilson, A.; Davis, G.; Cervenec, J.; Kashani-Motlagh, J. (2023). State Climate Office of Ohio, Twitter. Retrieved from: https://twitter.com/Ohio_Climate.

Radio and Television (Recent)

1. (2023) Worlds Hottest Day. WFMJ NBC, Youngstown, Ohio, United States. [Television]. Guest Expert. Retrieved from <https://www.wfmj.com/clip/15407048/two-days-this-week-hit-record-high-temperatures>.
2. (2023) Weather Update. In Ohio Country Today, Wapakoneta, Ohio, United States. [Radio broadcast/ recording]. Guest Expert. Distributed by Youtube – 45 views. Retrieved from: <https://www.youtube.com/watch?v=lRF7Mk76qMk&t=109s>.
3. (2022). There's money in the Inflation Reduction Act for farms. Here's how it will go to use. Cincinnati Edition, 91.7 WVXU, Cincinnati, Ohio, United States. [Radio broadcast/ recording]. Guest Expert. Retrieved from: <https://www.wvxu.org/show/cincinnati-edition/2022-09-08/money-inflation-reduction-act-farms>.

4. (2022). Farming and the environment. All Sides with Ann Fisher, WOSU, Columbus, Ohio, United States. [Radio broadcast/ recording]. Guest Expert. Retrieved from: <https://news.wosu.org/show/all-sides-with-ann-fisher/2022-08-22/farming-and-the-environment>.

Recordings (Recent)

1. (2023) Drought Begets Drought. Agronomy and Farm Management: Episode 117, OSU Extension, Columbus, Ohio, United States. [Podcast]. Guest Expert. Retrieved from <https://podcast.osu.edu/agronomy/2023/06/07/episode-117-drought-begets-drought/>.
2. (2023) Weather Outlook Spring 2023. Agronomy and Farm Management: Episode 112, OSU Extension, Columbus, Ohio, United States. [Podcast]. Guest Expert. Retrieved from <https://podcast.osu.edu/agronomy/2023/03/01/episode-112-weather-outlook-spring-2023/>.
3. (2023) Climate & Pest Management. Wilson, A.; Michel, A.; Lewis, M. [Recording]. Led Webinar, Created Slides, Presented Material. Distributed by Youtube – 46 views. Retrieved from: <https://www.youtube.com/watch?v=CPkrXUWtaX8&t=1094s>.
4. (2023) Climate & Farm Management. Wilson, A.; Clevenger, W. [Recording]. Led Webinar, Created Slides, Presented Material. Distributed by Youtube – 46 views. Retrieved from: <https://www.youtube.com/watch?v=biFer3i2cgc>.
5. (2023) Climate & Disease Management. Wilson, A.; Paul, P. [Recording]. Led Webinar, Created Slides, Presented Material. Distributed by Youtube – 50 views. Retrieved from: <https://www.youtube.com/watch?v=79dmBodoPcM&t=2977s>.
6. (2022) Weather Outlook Winter 22-23. Agronomy and Farm Management: Episode 111, OSU Extension, Columbus, Ohio, United States. Guest Expert. Retrieved from <https://podcast.osu.edu/agronomy/2022/12/21/episode-111-weather-outlook-winter-22-23/>.
7. (2022) Climate Change and Harvest. Cloudy with a Chance of Podcast, WHIO, Dayton, Ohio, United States. Guest Expert. Retrieved from: <https://www.whio.com/station/cloudywithachanceofpodcast/>.
8. (2022) 2022 Fall Weather Update. Agronomy and Farm Management: Episode 107, OSU Extension, Columbus, Ohio, United States. Guest Expert. Retrieved from <https://podcast.osu.edu/agronomy/2022/10/12/episode-107-2022-fall-weather-update/>.
9. (2022). 2022 Growing Season Weather Outlook. Agronomy and Farm Management: Episode 107, OSU Extension, Columbus, Ohio, United States.

Guest Expert. Retrieved from

<https://podcast.osu.edu/agronomy/2022/05/25/episode-98-2022-growing-season-weather-outlook/>.

10. (2022). 2022 Spring Weather Outlook. Agronomy and Farm Management: Episode 107, OSU Extension, Columbus, Ohio, United States. Guest Expert. Retrieved from <https://podcast.osu.edu/agronomy/2022/03/16/episode-93-2022-spring-weather-outlook/>.

Other Creative Works

1. Cervenec, J.; Davis, G.; Peggau, K.; Wilson, A.B.; Mark, B. (2023). 'It's us,' 'there's hope,' and 4 other things we must face about climate change. [Article]. Columbus, Ohio, United States. Retrieved from:
<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/>.
2. Agronomic Crops Team CORN Newsletter – Regular contributor as content expert on weather and climate related issues and information
 - a. 2023 – 23 articles
 - i. Example: Wilson, A.B. (2023). Weather Update: Heatwave and Scattered Storms Expected [Article]. Columbus, Ohio, United States. Ohio State University Extension. Retrieved from:
<https://agcrops.osu.edu/newsletter/corn-newsletter/2023-24/weather-update-heatwave-and-scattered-storms-expected>.
 - b. 2022 – 25 articles
 - i. Example: Wilson, A.B. (2022). Weather Update: Fall-like Weather with Eyes on the Tropics [Article]. Columbus, Ohio, United States: Ohio State University Extension. Retrieved from:
<https://agcrops.osu.edu/newsletter/corn-newsletter/2022-33/weather-update-fall-weather-eyes-tropics>.
 - c. 2021 – 22 articles
 - i. Example: Wilson, A.B. (2021). Typical March Weather Continues [Article]. Columbus, Ohio, United States: Ohio State University. Retrieved from: <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-06/typical-march-weather-continues>.

CONFERENCE PRESENTATIONS & EXTENDED ABSTRACTS

Wilson, A. B., J. Nicolas, and J. Cervenec, 2019: Engaging in Atmospheric Sciences with the Fluid Earth Viewer (FEVer). *American Meteorological Society's 99th Annual Meeting*. Phoenix, AZ, January 2019.

Wilson A. B., D. H. Bromwich, L. Bai, Z. Liu, and H. Zhang, 2019: Exploring Rapid Climate Change in the Arctic with the Arctic System Reanalysis. *American Meteorological Society's*

- 99th Annual Meeting. Phoenix, AZ, January 2019,
<https://ams.confex.com/ams/2019Annual/meetingapp.cgi/Paper/354250>.
- Wilson A B.,** J. Doll, J. DeDecker, J. Cervenec, W. Haines, 2018: From Fields to Forecasts: Participatory Practices for Engaging Farmers in Climate Conversations and Solutions. *Great Lakes Adaptation Forum*. University of Michigan. Ann Arbor, MI. September 2018.
- Cervenec, J., and **A. B. Wilson,** 2018: Leadership at all Levels: Lessons Learned from Climate Action Planning in Three Cities. *Great Lakes Adaptation Forum*. University of Michigan. Ann Arbor, MI. September 2018.
- Bromwich, D. H., **A. B. Wilson,** L. Bai, and Z. Liu, 2018: Arctic System Reanalysis Provides High-resolution Accuracy for Arctic Studies. *Polar2018*. Davos, Switzerland. June 2018.
- Bromwich, D. H., **A. B. Wilson,** et.al. 2018: Arctic Ocean Precipitation Captured by the Arctic System Reanalysis. *NASA-ESA Snow on Sea Ice Meeting*. Goddard Space Flight Center January 2018.
- Bromwich, D. H., **A. B. Wilson,** L.-S. Bai, G.W.K. Moore, K.M. Hines, S.-H. Wang, W. Kuo, Z. Liu, H.-C. Lin, T.-K. Wee, M. Barlage, M.C. Serreze, J.E. Walsh, A. Slater, J. Woollen, and C.-F. Shih, 2017: Arctic System Reanalysis Depiction of Arctic Atmospheric Circulation. *1st (AC)3 Science Conference on Arctic Amplification*. Bremen, Germany, March 2017.
- Wilson, A. B.,** R. Cummings, J. Cervenec, J. DeGrand, and B. Mark, 2016: Harnessing Education and Technology for Environmental Detection (HEATED): An innovative, low-cost device for monitoring the Columbus urban heat island. *Innovative Environmental Monitoring Technology Symposium*, Partnership for Digitally Connected Environmental Monitoring, Ohio University, Athens, OH, October 2016.
- Cervenec, J., **A. B. Wilson,** J. DeGrand, B. Mark, and R. Cummings, 2016: Harnessing Education and Technology for Environmental Detection (HEATED): Pedagogical innovations for engaging undergraduate students in research. *Innovative Environmental Monitoring Technology Symposium*, Partnership for Digitally Connected Environmental Monitoring, Ohio University, Athens, OH, October 2016.
- Bromwich, D. H., **A. B. Wilson,** L. Bai, G. W. K. Moore, F. Justino, S.-H. Wang, K. M. Hines, B. Kuo, Z. Liu, H.C. Lin, and M. Barlage, 2016: Conducting the Arctic System Reanalysis using Polar WRF and WRFDA. *17th WRF Users' Workshop*, National Center for Atmospheric Research, Boulder, CO, June 2016.
- Wilson, A. B.,** G. W. K. Moore, D. H. Bromwich, L. Bai, I. Renfrew, S.-H. Wang, K. M. Hines, B. Kuo, Z. Liu, H.-C. Lin, and M. Barlage, 2016: Improving the depiction of topographically-forced winds near Greenland with the Arctic System Reanalysis. *International Symposium on Atmospheric Boundary Layers in High Latitudes*. Byrd Polar and Climate Research Center, The Ohio State University, Columbus, Ohio, June 2016.
- Justino, F., **A. B. Wilson,** D. H. Bromwich, A. Avila, L. Bai, and S.-H. Wang, 2016: Arctic System Reanalysis (ASR) improved Northern Hemisphere extratropical turbulent heat fluxes. *International Symposium on Atmospheric Boundary Layers in High Latitudes*. Byrd Polar and Climate Research Center, The Ohio State University, Columbus, Ohio, June 2016.
- G.W. Kent Moore, D. H. Bromwich, **A. B. Wilson,** L. Bai, and I. Renfrew, 2016: Arctic System Reanalysis better depicts topographically-forced winds near Greenland. *13th European Polar Lows Working Group (EPLWG) Workshop*. Paris, France, April 2016.
- Wilson, A. B.,** D. H. Bromwich, L.-S. Bai, G. W. K. Moore, Y.-H. Kuo, Z. Liu, H.-C. Lin, and

- M. Barlage, 2015: Poster: Pushing the regional Arctic System Reanalysis to higher resolution: A comparison with the global ERA-Interim Reanalysis for the Arctic and beyond. *American Geophysical Union Fall Meeting*. San Francisco, CA, December 2015.
- G. W. K. Moore, D. H. Bromwich, **A. B. Wilson**, I. Renfrew, L. Bai, and M. DeBenedetti, 2015: Arctic System Reanalysis better depicts topographically-forced winds near Greenland. *American Geophysical Union Fall Meeting*, San Francisco, CA, December 2015.
- Justino, F., D. Lindermann, F. Kucharski, F. Stordal, **A. B. Wilson**, D. Bromwich, 2015: Poster: Oceanic response to topography and orbital forcing during the MIS31: The reversal effect of both forcing. *American Geophysical Union Fall Meeting*. San Francisco, CA, December 2015.
- Bromwich, D. H., K. W. Manning, J. G. Powers, K. M. Hines, D. Lubin, K. Pon, J. Wille, and **A. B. Wilson**, 2015: Polar Prediction. *The Year of Polar Prediction (YOPP) Summit*, World Meteorological Organization, Geneva, Switzerland, July 2015.
- Wilson, A. B.**, D. H. Bromwich, and K. M. Hines, 2015: Simulating anomalous high-southern latitude atmospheric circulation mutually forced by the Southern Annular Mode and El Niño flavors. *10th Antarctic Meteorological Observation, Modeling, and Forecasting Workshop*, British Antarctic Survey, Scott Polar Research Institute, Cambridge, U. K., June 2015.
- Wilson, A. B.**, D. H. Bromwich, Z. Liu, W. Kuo, S.-Y. Chen, H.-C. Lin, T.-K. Wee, and K. M. Hines 2015: Assimilating GPS RO in Polar WRF to improve surface pressure estimation over Antarctica. *Canadian Meteorological and Oceanographic Society 49th Congress and the American Meteorological Society 13th Conference on Polar Meteorology and Oceanography*, Whistler, British Columbia, June 2015.
- Bromwich, D. H., L.-S. Bai, K. M. Hines, **A. B. Wilson**, S.-H. Wang, Z. Liu, H.-C. Lin, M. Barlage, and Y.-H. Kuo, 2015: Arctic System Reanalysis: 15 and 30 km Versions. *Canadian Meteorological and Oceanographic Society 49th Congress and the American Meteorological Society 13th Conference on Polar Meteorology and Oceanography*, Whistler, British Columbia, June 2015.
- Mosley-Thompson, E., L. G. Thompson, S. Porter, B. Goodwin, and **A. B. Wilson**, 2014: Global Climate Change: Valuable Insights from Concordant and Discordant Ice Core Histories. *American Geophysical Union Fall Meeting*. San Francisco, CA, December 2014.
- Bromwich, D. H., **A. B. Wilson**, L.-S. Bai, G.W. K. Moore, B. Kuo, Z. Liu, H.-C. Lin, and M. Barlage, 2014: A comparison of the regional Arctic System Reanalysis and the global ERA-Interim Reanalysis for the Arctic. *American Geophysical Union Fall Meeting*. San Francisco, CA, December 2014.
- Wilson, A. B.**, D. H. Bromwich, Z. Liu, Y.-H. Kuo, S.-Y. Chen, H.-C. Lin, and T.-K. Wee, 2014: Improving surface pressure determination over Antarctica using GPS RO. *8th FORMOSAT-3/Constellation Observing System for Meteorology, Ionosphere and Climate (COSMIC) Data Users' Workshop*. Boulder, CO, Poster, October 2014. [Available online at http://www.cosmic.ucar.edu/workshop_2014/presentations.html].
- Bromwich, D. H., **A. B. Wilson**, K. M. Hines, and S.-H. Wang, 2014: Contrasting atmospheric circulation in the high-southern latitudes during central- versus eastern-Pacific El Niño events. *Mini-Conference: Connecting the Tropics to Polar Regions*. Lamont Campus, Palisades, NY, June 2014.
- Wilson, A. B.**, 2014: Prediction versus Projection: How weather forecasting and climate models differ. *Understanding Climate Change Risks and Identifying Opportunities for Mitigation & Adaptation in Ohio*. Columbus, Ohio, May 2014.
- Bromwich, D. H., and **A. B. Wilson**, 2013: Modeling SAM's modulation of the ENSO

- teleconnection to Antarctica. *American Geophysical Union Fall Meeting*. San Francisco, CA, December 2013.
- Bromwich, D. H., J. G. Powers, **A. B. Wilson**, K. Pon, and J. P. Nicolas, 2013: Numerical weather prediction for the Antarctic and the Arctic. *ECMWF- WWRP/THORPEX Workshop on polar prediction*, Reading, United Kingdom, June 2013. **Extended abstract in preprints** at http://www.ecmwf.int/newsevents/meetings/workshops/2013/Polar_prediction/papers_for_proceedings/index.html.
- Wilson, A. B.**, D. H. Bromwich, and K. M. Hines, 2013: Evaluating the variability of the ENSO-SAM teleconnection to Antarctica using the NCAR CAM 4. *American Meteorological Society 12th Conference on Polar Meteorology and Oceanography*. Seattle, WA, April 2013.
- Wilson, A. B.**, D. H. Bromwich, and K. M. Hines, 2013: Evaluating the impacts of ENSO flavors on the ENSO-SAM teleconnection to Antarctica using CAM 4. *The U.S. Climate Variability and Predictability Research Program (CLIVAR) ENSO Diversity Workshop*, Boulder, CO, February 2013.
- Bromwich, D. H., **A. B. Wilson**, S.-H. Wang, L.-S. Bai, K. M. Hines, J.P. Nicolas, 2012: Recent Arctic atmospheric circulation change in the fall analyzed via the Arctic System Reanalysis. *American Geophysical Union Fall Meeting*. San Francisco, CA, December 2012.
- Wilson, A. B.**, D. H. Bromwich, and K. M. Hines, 2012: Climate model simulations of ENSO-SAM teleconnections to Antarctica. *XXXII Scientific Committee on Antarctic Research (SCAR) Open Science Conference*, Portland, OR, July 2012.
- Wilson, A. B.**, D. H. Bromwich, and K. M. Hines, 2011: Polar WRF forecasts on the Arctic System Reanalysis domain: Atmospheric hydrologic cycle. *Workshop on Polar Simulations with the Weather Research and Forecasting (WRF) Model*, Columbus, OH, November 2011.
- Bromwich, D. H., K. M. Hines, **A. B. Wilson**, and A. Lucas, 2011: ENSO-SAM teleconnections and decadal variability. *IUGG 2011 General Assembly*, Melbourne, Australia, **Poster**, June 2011.
- Wilson, A. B.**, D. H. Bromwich, and K. M. Hines, 2011: Evaluation of Polar WRF forecasts of the atmospheric hydrologic cycle over the ASR domain. *American Meteorological Society 11th Conference on Polar Meteorology and Oceanography*, Boston, MA, May 2011.
- Hines, K. M., D. H. Bromwich, **A. B. Wilson**, and A. Lucas, 2011: ENSO-SAM teleconnections and decadal variability. *American Meteorological Society 11th Conference on Polar Meteorology and Oceanography*, Boston, MA, May 2011.
- Bromwich, D. H., and **A. B. Wilson**, 2009: Impact of grid nudging on Polar WRF. 4th *Antarctic Meteorological Observation, Modeling, and Forecasting Workshop*, Charleston, SC, July 2009.
- Wilson, A. B.**, D. H. Bromwich, K. M. Hines, and C. E. Landis, 2009: Enhancement of Polar WRF atmospheric and surface processes: Contribution to Arctic System Reanalysis and public awareness. *American Meteorological Society 10th Conference on Polar Meteorology and Oceanography*, Madison, WI, May 2009. **Extended abstract in preprints** at <https://ams.confex.com/ams/pdfpapers/152844.pdf>.
- Wilson, A. B.**, and D. H. Bromwich 2008: Numerical Weather Prediction and the Arctic. *National Science Foundation American Workforce and Research and Education Program (AWARE) FORMOSAT-3/ Constellation Observing System for Meteorology, Ionosphere and Climate (COSMIC) Workshop at the 4th Asian Space Conference*, Taipei, Taiwan. Poster, October 2008.

RECENT FACILITATED WORKSHOPS & CONFERENCES

Climate Smart: Farming with Weather Extremes. Plain City, Ohio. November 2023.

Ohio Ecological and Food Farm Association (OEFFA) Annual Meeting. Dayton, Ohio. February 2020. <https://www.oeffa.org/conference2020.php>

- Building Agricultural Resilience to a Changing Climate
- Our Changing Climate: Global Context, Local Lens, Risks, and Adaptations

Climate Smart Agriculture: Farming with Weather Extremes. Plain City, Ohio. July 2019.

<https://u.osu.edu/climatesmart/july18/>

Great Lakes Big Rivers Climate Workshop. Indianapolis, Indiana. December 2018.

<https://tinyurl.com/y2fg9428>

HONORS AND AWARDS

2024

- NACAA Distinguished Service Award

2023

- William Fowler Science Series Featured Speaker, City of Lima and Ohio State Lima Campus
- Distinguished Multi-Disciplinary Team Extension Award, College of Food, Agricultural, and Environmental Sciences, Ohio State

2008-2022

- Third Place - Team Teaching: Creative Works and Media: Working Together to Reach Rural and Mental Health Service Providers Across Ohio, ESP/JCEP
- Byrd Polar and Climate Research Center Lois M. Jones Award for Science Access, Engagement, and Communications
- Ohio Supercomputer Center Annual Allocation Award, 800,000 Resource Units
- First Place – Flash Talk Competition, Ohio Supercomputer Center Statewide User Group, 5000 Resource Units
- Ohio Supercomputer Center Annual Allocation Award, 400,000 Resource Units
- First Place – Flash Talk Competition, Ohio Supercomputer Center Statewide User Group, 5000 Resource Units
- NSF Sponsored DISsertations initiative for the advancement of Climate Change ReSearch (DISCCRS) New Generation of Polar Researchers Leadership Symposium, Wrigley-Boone Marine Science Center, Catalina Island, CA. Selected from a pool of 92 early career scientists, recognized for outstanding research achievements, and brought together to form a new polar interdisciplinary research network.
- Ohio Supercomputer Center Annual Allocation Award, 350,000 Resource Units
- UCAR Travel Award, FORMOSAT-3/COSMIC Data Users' Workshop, Boulder, CO
- Ohio Supercomputer Center Annual Allocation Award, 550,000 Resource Units
- The Fenburr Travel Scholarship, Department of Geography, The Ohio State University
- Best Student Oral Presentation Award, American Meteorological Society 11th Conference on Polar Meteorology and Oceanography, Boston, MA.
- UCAR Travel Award, FORMOSAT-3/COSMIC Data Users' Workshop, Taipei, Taiwan

CLASSROOM INSTRUCTION

Class Instructor

- SP 2021. Geography 5940: Synoptic Meteorology Lab, 2 credit hours. 21 enrolled. Percentage of course taught: 100%. SEIs administered.
- Maymester 2016. Geography 4193: Independent Studies - Urban Heat Island Monitoring, 2 credit hours. 8 enrolled. Percentage of course taught: 33%.

Lectures & Seminars

Horticulture and Crop Science 3100: Introduction into Agronomy, Autumn 2021 (Bruce Ackley)

Geography 3901H: Global Climate and Environmental Change, Autumn 2021 (Ellen Thompson)

Earth and Natural Resources 2000: Weather and Climate Data Analysis, Autumn 2020, 2021 (Kristie Lekies)

Geography 1900: Extreme Weather and Climate, The Ohio State University, Autumn 2019 (Jim DeGrand)

Earth Science 6750: Paleoclimatology, The Ohio State University, Spring 2013, 2015, 2017, 2019, 2021 (Lonnie G. Thompson)

Atmospheric Science 8900 Seminar: Exploring the Many Aspects of Global Warming, The Ohio State University, Spring 2016 (David H. Bromwich)

Geography 5900: Weather, Climate, and Global Warming, The Ohio State University, Spring 2013, Autumn 2015 (David H. Bromwich)

STUDENT ADVISING

International Scholar

Alvaro-Avila Diaz, Ph.D., Department of Agricultural Engineering, Universidade Federal de Viçosa, Viçosa, Minas Gerais, Brazil. Analysis and publication writing, 2019.

Graduate

John Speicher, M.S. in Horticulture and Crop Science, The Ohio State University, Wooster, OH. *Internal High Tunnel Microenvironment Effects on Carrot (*Daucus carota* var. *sativus*) and Lettuce (*Lactuca sativa* var. *longifolia*) and Assessing Growers' and Educators' Accuracy in Predicting Microenvironments and Cropping Outcomes*. Expected Completion: Spring 2022.

Undergraduate

Chris Birchfield, The Ohio State University, Atmospheric Sciences Undergraduate, Columbus, OH, internship, meetings 3 days per week, June-July 2012.

High School

Austin Lucas, Metro High School, Columbus, OH, internship, meetings 2-3 days per week, September 2010-January 2011.

Sarah Harkless, New Albany High School, New Albany, OH, science class research project, meetings 1 day per month, September 2009-March 2010.

David Donahue, Metro High School, Columbus, OH, Polar Frontier Project, meetings 1 day per month, September 2008-December 2008.

Brandon Klein, Metro High School, Columbus, OH, Polar Frontier Project, meetings 1 day per month, September 2008-December 2008.

SERVICE TO THE PROFESSION

Chapter Lead of the Midwest Chapter – Fifth National Climate Assessment. U.S. Global Change Research Program. (2.5-year commitment through 2023)

State Climate Office of Ohio (2015-present)

- Weekly Hydrologic Assessment for Ohio and communication with the National Drought Mitigation Center – U.S. Drought Monitor (<http://bpcrc.osu.edu/hydro>)
- The State Climate Office of Ohio Mesonet Meeting, The Ohio State University Union, Columbus, OH, March 2016
- Midwest Climate Outlook and Drought Early Warning System (DEWS) Planning Workshop, Ohio River Basin, Louisville, KY, November 2015.
- Planning Committee Member for 2019 DEWS Regional Partner Meeting

ECOP Climate Program Action Team

- Goal is to identify potential partners, build collaborations, and resources for national Extension programs surrounding climate.
- Meet quarterly to discuss emerging opportunities for Extension in climate and to help identify potential partners.

OSU CFAES

- ***Ag Crisis Task Force*** - Supply routine critical weather and climate briefs important for responses across CFAES (2020-present)
- ***Farm Science Review Steering Committee*** – (2017-present)
- ***Health Ag = Healthy Society*** – Join other selected CFAES representatives to propose asks for the Nationwide funding cycle

North Central Climate Collaborative (2017-present; Leadership Team 2019-present)

- Team of Extension professionals from across the north central region working to increase the flow and usability of climate information for Extension, farmers, natural resource managers, and communities.
- Soil and Water Conservation Society International Annual Conference, Expanding Horizons: Where Climate Change Meets Innovative Conservation. Virtual, July 2020.

Expert Testimony to Legislature

- Ohio House Meeting on Lake Erie erosion – August 2020
- Ohio County Commissioners Meeting – March 2020
- Ohio Senate Republicans – March 2020
- Ohio House Ag Committee (2x) – March 2020

Midwest Agricultural Climate Team (MAC-T)

- USDA Midwest Climate Hub coordinated discussion group that brings together extension and climate specialists to compare issues, share resources, and inform

(ultimately) producers of upcoming conditions via regular updates throughout the growing season.

Mid-Ohio Regional Planning Commission Sustaining Scioto Project

- Sustaining Scioto Board Member – Second, Two-year term (2020-2024)
 - Ag Subcommittee (2020-present)
- Sustaining Scioto Subcommittee Member – 2018-2020

NOAA Monthly North Central U.S. Climate and Drought Update Webinar

- Contribute Ohio drought and climate information to the monthly webinar presenter
- Monthly lead presented for July 2020, August 2019, June 2018, June 2017 [Available online at <https://mrcc.illinois.edu/multimedia/webinars.jsp#yr2020>].

Ohio Smart Agriculture

- Worked with InFACT and Solutions from the Land on the Ohio Smart Agriculture project to engage develop written materials for the “futuring” report as part of the Climate Smart Ag Working Group, engage the OSA Steering Committee to discuss the impacts of climate change on agriculture in Ohio, attend and help facilitate regional meetings to solicit input on the report from around Ohio. [Report available online at: https://www.sfldialogue.net/ohiosmartag/reports/OSA-SfL_Phase_I_Report.pdf]
- Served as climate expert for the creation of the City of Columbus’s Climate Adaptation Plan – released autumn 2018.
- Facilitated communication among Columbus elected officials and business leaders, other members of the task force, and a larger stakeholder group to translate the Columbus Climate Vulnerability report into actionable items for the City of Columbus

Peer-review Journals

- Journal of Climate, Journal of Geophysical Research - Atmospheres, Bulletin of the American Meteorological Society, Journal of Hydrometeorology, Weather and Forecasting, Journal of Applied Meteorology and Climatology, Journal of Glaciology, Agronomy

EXHIBITS AND PRODUCTS

Field Application Resource Monitor (FARM): A real-time and historical climate information tool for fertilizer and manure application. [Available online at <https://farm.byrd.osu.edu/>].

Fluid Earth Viewer: An interactive web application that allows you to visualize current and past conditions of Earth’s atmosphere and oceans.
[Available online <https://fluid-earth.byrd.osu.edu>].

Arctic Weather Modeling exhibit at the Battelle Ice Bear Outpost, *Columbus Zoo and Aquarium’s Polar Frontier*, on display since May 2010.

COMPUTER SKILLS

Operating systems/techniques:	Linux/UNIX, Windows, Supercomputing, and Parallel Processing
Numerical Modeling Platforms:	Weather Research and Forecasting Model (WRF), Polar WRF, WRF Data Assimilation System (WRFDA), NCAR Community Atmosphere Model
Programming:	FORTRAN, C-shell scripting, C++, Python, R, IDL
Meteorological Analysis:	NCAR Command Language (NCL), Read/Interpolate/Plot (RIP), Ferret, Grid Analysis and Display (GrADS), Climate Data Operators (CDO), and netCDF Operators (NCO)

PROFESSIONAL MEMBERSHIPS

- 2023 – Present. Member. Joint Council of Extension Professionals (JCEP).
- 2023 – Present. Member. National Association of County Agricultural Agents (NACAA)
- 2023 – Present. Member. Epsilon Sigma Phi (ESP)
- 2022 – Association of Natural Resource Extension Professionals (ANREP)
- 2016 – American Geophysical Union (AGU)
- 2016 – Present. Member. American Association of State Climatologists (AASC)

VOLUNTEER & COMMUNITY INVOLVEMENT

- Science Olympiad Volunteer: 2013-2019
- The Ohio Academy of Science – Buckeye Science and Engineering Fair: 2016, 2017
- State Science Day Judge: 2018-2019