

Vincent M. Brown, Ph.D.
Department of Geography and Anthropology
Louisiana State University
240-626-9307 • vbrow31@lsu.edu

Interests

Physical geography with a focus on climatology, precipitation variability, climate extremes, and climatic change.

Education

Ph.D. Geography, August 2019, Louisiana State University.

Dissertation Title: “Hourly Precipitation Climatology of the Southeast United States.”

Advisor: Dr. Barry D. Keim; Committee: Dr. Alan W. Black, Dr. Kristine L. DeLong, and Dr. Josh T. Copes.

M.S. Geography, May 2016, University of Tennessee.

Thesis Title: “Tennessee Tornado Frequency, Vulnerability, and Relation to Large-Scale Climate Variability.”

Advisor: Dr. Kelsey N. Ellis; Committee: Dr. Sally P. Horn and Dr. Nicholas N. Nagle.

B.S. Geography, May 2014, Salisbury University.

Concentration: Atmospheric Sciences and Applied Climatology.

Advisor: Dr. Brent R. Skeeter.

Positions Held

Assistant Professor-Research. Department of Geography and Anthropology. Louisiana State University. 2019–present.

Climate Research Director. Southern Climate Impacts Planning Program. Louisiana State University. 2019–present.

Staff Meteorologist/Consultant. Applied Weather Associates. Monument, CO. 2020–present.

Research Associate. Southern Climate Impacts Planning Program. Louisiana State University. 2017–2019.

Peer-Reviewed Publications

Lavaud, R, La Peyre, M.K., Couvillion, B.R., Pollack, J.B., **Brown, V.M.**, Palmer, T.A., Keim, B.D., In Press. Predicting Restoration and Aquaculture Potential of Eastern Oysters Through an Eco-Physiological Mechanistic Model, *Ecological Modelling*, vol. 489, 2024.
doi.org/10.1016/j.ecolmodel.2023.110603

Bolinger, R.A., **Brown, V.M.**, Fuhrmann, C.M., Gleason, K.L., Joyner, T.A., Keim, B.D., Lewis, A., Nielsen-Gammon, J.W., Stiles, C.J., Tollefson, W. and Attard, H.E., 2022. An assessment of the extremes and impacts of the February 2021 South-Central US Arctic outbreak, and how climate services can help. *Weather and Climate Extremes*, p.100461.

Brown, V.M., Keim, B.D., and Black, A.W., 2020. Trend Analysis of Multiple Extreme Hourly Precipitation Time Series in the Southeast United States. *Journal of Applied Meteorology and Climatology*, 59, 427–442.

Brown, V.M., Keim, B.D., Kappel, W.D., Hultstrand, D.M., Peyrefitte, A.G., Black, A.W., Steinbilber, K.M., and Muhlestein, G.A., 2020. How Rare was the August 2016 South-Central Louisiana Heavy Rainfall Event? *Journal of Hydrometeorology*, 21, 773–790.

Brown, V.M., Shirely, M.G., Keim, B.D., Marx, B.D. and Lutz, C.G., 2020. Effect of Meteorological Variables on Crawfish Harvest in Louisiana. *Climate Research*, 81, 15–28.

Brown, V.M., Keim, B.D. and Black, A.W., 2019. Climatology and Trends in Hourly Precipitation for the Southeast United States. *Journal of Hydrometeorology*, 20, 1737–1755.

Brown, V.M., Black, A.W. and Keim, B.D., 2019. Hourly Rainfall Climatology of Louisiana. *Theoretical and Applied Climatology*, 137, 2011–2027.

Brown, V.M., Ellis, K.N. and Bleakney, S.A., 2016. Tennessee Tornado Climate: A Comparison of Three Cities. *Southeastern Geographer*, 56, 118–133.

Ellis, K. N., Hathaway, J. M., Mason, L. R., Howe, D. A., Epps, T. H., and **Brown, V. M.**, 2015. Summer Temperature Variability Across Four Urban Neighborhoods in Knoxville, Tennessee, USA. *Theoretical and Applied Climatology*, 127, 701–710.

Manuscripts Submitted for Peer-Review

Brown, V.M., Black, A.W., Hultstrand, D.M., Keim, B.D., Kappel W.D., Thompson, D.T., and Sitzman, A.K., In Review. Rainfall Analysis of the May 2021 Southeastern Texas and Southern Louisiana Flood. *Physical Geography*.

Trepanier, J.C., Nielsen-Gammon, J., **Brown, V.M.**, Keim, B.D., and Thompson D.T., In Review. Stalling North Atlantic Tropical Cyclones. *Science Advances*.

Keim, B.D., **Brown, V.M.**, Hamilton, L.C., Klotzbach, P.J., and Lewis, A.B., In Review. Lengthening Hurricane Seasons with Earlier Storm Formation Dates: Lessons from 2020. *Journal of Climate*.

Day, J.W., Xu, Y.J., Keim, B.D., **Brown, V.M.**, Goisan, L., Mann, M.E., Stephens, J.R., In Review. Emerging Climate Threats to the Mississippi River Delta: Moving from Restoration to Adaptation. *One Earth*.

Thompson, D.T., Keim, B.D., **Brown, V.M.**, In Review. Construction of a Tropical Cyclone Size Dataset using Reanalysis Data. *International Journal of Climatology*.

Special Reports

Brown, V.M. and Keim, B.D., 2019. Preliminary Report Summary of Hurricane Barry: July 10–17, 2019. *Southern Climate Monitor*, Southern Climate Impacts Planning Program. http://www.southernclimate.org/documents/Final_Barry.pdf

Black, A.W. and **Brown, V.M.**, 2019. Inventory and Probabilistic Function of Natural Hazards in the United States. National Renewable Energy Laboratory (NREL). Subcontract Report NREL/SR-7A40-75493. <https://www.nrel.gov/docs/fy20osti/75493.pdf>

Grants and Awards

Keim, B.D. and **Brown, V.M.** *Planning a Flood Resilient Future for New Orleans, LA.* **Funded** by the National Oceanic and Atmospheric Administration-Adaptation Sciences Program Advancing Climate Adaptation and Coastal Community Resilience for \$300,000. September 2021–August 2023.

Keim, B.D. and **Brown, V.M.** *Southern Climate Impacts Planning Program Phase IV: Planning for Long Term Change in a Short-Term World.* **Funded** by the National Oceanic and Atmospheric Administration-Regional Integrated Sciences and Assessments Program for \$5,400,000. September 2021–August 2026.

Keim, B.D. and **Brown, V.M.** *A roadmap for developing resilient coastal shellfish populations: using spatial and process-based modelling for restoration under current and predicted future water quality conditions.* **Funded** by the South-Central Climate Adaptation Science Center for \$299,435 from August 2021–August 2023.

Keim, B.D., **Brown, V.M.**, and Lewis, A.B. *Filling the Gaps: Climate and Weather Information for Small- and Medium Sized Water Utilities.* **Funded** by the National Oceanic and Atmospheric Administration for \$20,000 from November 2019–September 2020.

Keim, B.D., Black, A.W., Edwards, J.R., Daigle, M.T., and **Brown, V.M.** *Building a More Resilient Coast: Understanding and Adapting to Extreme Events.* **Funded** by the National Oceanic and Atmospheric Administration-Coastal and Ocean Climate for \$400,000 from September 2018–August 2020.

Keim, B.D., Black, A.W., Edwards, J.R., and **Brown, V.M.** *Southern Climate Impacts Planning Program Phase III: Helping Communities Build Resilience to Weather and Climate Extremes.* **Funded** by the National Oceanic and Atmospheric Administration-Coastal and Ocean Climate Applications for \$823,986 from September 2018–August 2021.

Invited Presentations and Conference Proceedings

Brown, V.M. “North Atlantic Tropical Cyclones” *Inland Marine Underwriters Association – Quick Bites Micro-Learning Series.* Virtual. November 11th, 2023.

Brown, V.M. “Natural Catastrophes and Climate Change.” *Inland Marine Underwriters Association 92nd Annual Meeting.* Tucson, Arizona. May 2nd, 2023.

Brown, V.M. and Simson, C., “A Database for the Largest Precipitation Events Across the United States.” *Texas Water Development Board Monthly Meeting.* Virtual. April 14th, 2023.

Brown, V.M. “Adapting to Climate Change: A SCIPP Perspective.” *South Central Climate Adaptation Science Center Fall Meeting.* Baton Rouge, Louisiana. November 10th, 2022.

Brown, V.M. “Moving Resilience Research to Action in the Gulf Region.” *National Science Foundation Workshop.* University of Texas-Austin, Texas. May 9th, 2022.

Brown, V.M. “Climate Change and Potential Impacts.” *Mississippi River: Delta Blues*. Kurt Vonnegut Museum and Library. Virtual. May 5th, 2021.

Brown, V.M., Keim, B.D. “Climatology and Trends in Hourly Precipitation for the Southeast United States.” *100th American Meteorological Society Annual Meeting, 34th Conference on Hydrology*. Boston, Massachusetts. January 14th, 2020.

Brown, V.M., Keim B.D. “Effect of Meteorological Variables on Crawfish Harvest in Louisiana.” *NOAA Regional Integrated Science Assessment Meeting*. November 14th, 2019.

Brown, V.M. “Southern Climate Impacts Planning Program Perspective.” *Forecast Informed Reservoir Operations Meeting*. Arlington, Texas. September 13th, 2019.

Brown, V.M., Keim, B.D. “Climate Change: How will Precipitation Change?” *New Orleans Sewerage and Water Board Meeting*. New Orleans, Louisiana. September 5th, 2019.

Brown, V.M., Keim B.D. “Climate Change: Hurricanes and Precipitation.” *New Orleans Office of Homeland Security and Emergency Management*. New Orleans, Louisiana. August 8th, 2019.

Brown, V.M., Keim B.D. “Climate Change and Extreme Events.” *New Orleans Clean Air Coalition Meeting*. New Orleans, Louisiana. April 30th, 2019.

Brown, V.M., Keim B.D. “Coastal and Ocean Climate Application Update: Extreme Rainfall and Engagement.” *NOAA Regional Integrated Science Assessment Meeting*. March 7th, 2019.

Brown, V.M. “Building Resilience Principles into Higher Education: Challenges and Opportunities.” *National Council for Science and the Environment Annual Meeting*. Washington D.C. January 8th, 2019.

Brown, V.M. “The Baton Rouge Flood of 2016: What Happened, What We Did, What We Lost, and What We Learned, South-Central Louisiana Flooding Event: August 2016.” *The Louisiana Geological Survey*. Baton Rouge, Louisiana. August 13th, 2018.

Teaching Experience

Louisiana State University: Hazards, Disasters, and the Environment (GEOG 2200) & Climatology (GEOG 4014)

University of Tennessee: Lab Instructor: Weather, Climate, and Climate Change (GEOG 131)

Graduate Advisory Committees

Supervisory Committee Member, M.S.

Ashlee M. Autore, LSU 2020.

Mahala “Haley” Gambill, 2022.

Samantha Camarda, 2023.

Reilly Corkran, expected 2024.

Anna Sitzman, expected 2024.

Jordan Fazio, expected 2024.

Amy Wold, expected 2024.

Service

Technical Contributor: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II: Southeast. doi: 10.7930/NCA4.2018.CH19

Peer-Review for the following Journals: *Journal of Hydrometeorology*, *International Journal of Climatology*, *Theoretical and Applied Climatology*, *Journal of Applied Meteorology and Climatology*.

Contributing Author: Louisiana Sea Grant, Lagniappe Fisheries Newsletter, “When it Rains, it pours, in Louisiana.”, March 2019, Volume 43, No.3

Software Skills

R Program for Statistics.

ArcGIS.

Python (Anaconda – Jupyter Notebook).

SAS (Statistical Analysis System).

Linux familiarity.

Professional Memberships and Honors Societies

American Meteorological Society.

Association of American Geographers.

Southeastern Division of the Association of American Geographers.

Gamma Theta Upsilon National Geography Honors Society.