

Bradfield Lyon

Curriculum Vitae

*Climate Change Institute &
School of Earth and Climate Sciences* W: climatechange.umaine.edu
137 Sawyer Environmental Research Center T: 207-581-2241
University of Maine F: 207-581-1203
Orono, ME 04469-5764 E: Bradfield.Lyon@maine.edu

EDUCATION

Ph.D. Meteorology, Massachusetts Institute of Technology, 1991
B.S. Meteorology, University of Lowell, 1984

WORK-RELATED EXPERIENCE

University of Maine, Orono, ME
Climate Change Institute and School of Earth & Climate Sciences
Research Professor 2021-present
Research Associate Professor 2015-20

Columbia University, New York, NY
International Research Institute for Climate and Society
Adjunct Research Scientist 2015-present
Research Scientist 2007-15
Associate Research Scientist 1999-2006

Graduate School of Arts and Sciences
Lecturer, Department of Earth and Environmental Sciences 2012-14

Assumption College, Worcester, MA 1998-99
Natural Sciences Department
Visiting Lecturer in Physics

Mount Wachusett Community College, Gardner, MA 1995-97
Instructor in Mathematics and Meteorology

University of Massachusetts at Lowell, Lowell, MA 1991-94
Department of Environmental, Earth and Atmospheric Sciences
Adjunct Lecturer in Meteorology

RESEARCH and TEACHING INTERESTS

- Climate analysis, diagnostic studies of climate variability and extremes
- Diagnostic analysis of climate model simulations and climate change projections
- The dynamics, prediction and impacts of heat waves and drought
- Physical climatology, climate dynamics
- Impacts of climate variability and change on the energy, water, and agriculture sectors

PROFESSIONAL ACTIVITIES and SERVICE

- Member, Maine Climate Council, Science and Technical Subcommittee (2019-)
- Member, University Research Council, University of Maine (2017-2018)
- Associate Editor, *Journal of Climate* (2008-2013)
- Chair, Organizing Committee, *41st Climate Diagnostics and Prediction Workshop*, University of Maine (2016)

American Meteorological Society

- Member, Energy Committee (2016-2020)
- Renewable Energy Committee observer (2018-present)
- Member, Committee on Applied Climatology (2012-2017)
- Member, Committee on Climate Variability and Change (2004-2006)
- Chair, organizing committee *18th Conference on Climate Variations and Change (Atlanta, GA, 2006)*
- Co-Chair, *16th Symposium, Climate Variations & Change (San Diego, CA, 2005)*
- Member of the 2005, 2006, and 2007 AMS Annual Meeting Committees
- Chair, organizing committee on *The Use of Climate Information and Forecasts in Water Resource Planning and Management (Atlanta, GA, 2006)*

Organizational Affiliations

- Member, NIDIS Working Group on Prediction (2015-2016)
- Member, WCRP Drought Interest Group (2010-2015)
- Member, US CLIVAR Drought Working Group (2006-2009)
- Member, NOAA MAPP Drought Task Force (2012-2017)

Journal Reviewer

Nature, Nature Climate Change, Nature Geoscience, Scientific Reports, Earth's Future, Environmental Research Letters, Journal of Climate, Climate Dynamics, Journal of the Atmospheric Sciences, Monthly Weather Review, Climatic Change, Journal of Hydrometeorology, Journal of Geophysical Research, Geophysical Research Letters, Quarterly Journal of the Royal Meteorological Society, Journal of Hydrologic Engineering, International Journal of Climatology, Journal of Applied Meteorology and Climatology, Journal of Environment and Development, Water, Water Resources Research, Journal of the American Water Resources Association, Bulletin of the American Meteorological Society.

Invited Reviewer

- *Assessment of Climate Change in the Southwest United States*, a contribution to the U.S. National Climate Assessment, 2013.

Science Advisor to UN ESCAP

Served as climate analyst and scientific technical advisor to the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) Office in Bangkok, Thailand on their project to build resilience to drought across 10 South-East Asian countries (the ASEAN countries), 2020.

Proposal Reviewer

- National Science Foundation
- National Aeronautics and Space Administration
- National Oceanic and Atmospheric Administration

Review Panels

- NOAA Climate Program Office
- NSF Climate and Large-Scale Dynamics

Professional Memberships

- American Meteorological Society
- American Geophysical Union

AWARDS

- 2017 Environmental Research Letters, Highlight Paper
- 2012 Geophysical Research Letters, Highlight Paper
- 1987 NCAR Advanced Studies Program Summer Colloquium, Scholarship/Research
- 1984 Charter Member, Sigma Gamma Epsilon, National Honor Society for the Earth Sciences, University of Lowell

GRANTS

Funded

- **Lyon**, B. (PI), A. Giannini (Co-PI), R. Seager (Co-PI), N. Vigaud (Co-PI): *Coupled Model Biases in the SST Distribution of the Global Tropics and Their Influence on Climate Change Projections*. NSF, CLD, \$738,910 (2017-2020).
- **Lyon**, B. (PI), A. Giannini (Co-PI): *Drying Versus Wettening of the East African Climate*. NSF CLD, \$467,056 (2014-2017).
- Barnston, A.G. (PI) and B. **Lyon** (Co-PI): *Diagnostics, Trends and Climate Model Projections of U.S. Summer Heat Waves*, NOAA COM, \$423,509 (2014-2016).
- Thomson, M.C. (PI) and B. **Lyon** (Co-PI): *Climate Variability and Change: Implications for Malaria Control in East Africa*. NIH, \$424,880 (2014-2016).
- **Lyon**, B. (PI), K. Mo and A.G. Barnston (Co-PIs): *Enhancing Seasonal Drought Prediction Capabilities for the US and the Globe Using the National Multi-Model Ensemble*. NOAA MAPP, \$449,000 (2012-2016).
- **Lyon**, B. (PI): *Leveraging CMIP5 and NASA GMAO Coupled Modeling Capacity for SERVIR East Africa Climate Projections*. Subcontract, MSFC, NASA SERVIR, \$149,000 (2013-2016).
- **Lyon**, B. (PI): *Integrated Seasonal Drought Forecast-Adaptive Management System for the Lower Colorado River Basin in Texas*. Subcontract to Michigan Tech, NOAA SARP, \$18,478 (2014-2015).

- **Lyon, B.** (PI), M.A. Bell, M.P. Hoerling, and A. Kumar: *New Tools for North American Drought Prediction*. NOAA CTB, \$451,180 (2008-2012).
- Lerner-Lam, A. (PI), and B. **Lyon** (co-PI): *Data Development and Improvement for the 2009 Global Risk Update: Earthquakes, Drought, and Population Exposure*. UNDP UNOPS, \$150,000 (2008-09).
- Chen, R.S. (PI), A. Lerner-Lam, B. **Lyon** (co-PIs), M. Levy: *Risk Assessment and Mitigation Measures for Natural and Conflict-related Hazards in Asia*. Norwegian Geotechnical Institute (NGI) subcontract, \$125,000, (2007-09).
- **Lyon, B.** (PI): *Investigating the Joint Occurrence of Summer Drought and Heat Waves in Climate Change Projections*. NSF SGER, \$27,867, (2007-08).
- Phillips, J.G. (PI), D.H. Krantz, and B. **Lyon**: *Decision-making under Risk of Extreme Events*. NOAA, \$172,650, (2004-2006).
- Seth, A., D. Fisher, T. Kestin, B. **Lyon**, E. Grover: *El Niño Drought Impacts in 2002-03: A Comparative Study of National Media Coverage*. IRI, Earth Institute, Columbia University, \$10,000, (2003).

GRADUATE STUDENTS and UNDERGRADUATE RESEARCHERS

Julia Simonson, (PhD candidate) SECS/CCI, University of Maine, thesis committee

Hunter Tubbs, (MS candidate) CCI, University of Maine, thesis advisor

Erin McConnell, (MS 2019), CCI, University of Maine, thesis committee

Anita Raman, (MA 2016), Columbia University, work study supervisor, co-author

Wenchang Yang, (PhD 2014), LDEO, Columbia University, thesis committee

Sandra Ashab, (MA 2007), Columbia University, work study co-supervisor

XiaoYu Liu, (MA 2007), Columbia University, work study co-supervisor

Bryan Finnegan, (MA 2006), Columbia University, work study supervisor

Yekaterina Gluzberg, (BA 2004), Columbia University, undergraduate research supervisor, co-author

PEER-REVIEWED PUBLICATIONS

SUBMITTED

Perez Arango, J.D., B.R. Lintner, L.M.V. Carvalho, and B. **Lyon**, 2020: Comparing the spatial extents of tropical droughts in observations, reanalysis, and CMIP5 models and their relationships to ENSO. *Geophys. Res. Lett.*, (revised).

PUBLISHED

Lyon, B., 2020: Biases in CMIP5 Climatological SST and the Annual Cycle of East African Rainfall. *J. Climate*, **33**, 8209–8223.

- Barnston, A.G., B. **Lyon**, E. Coffel, and R.M. Horton, 2020: Daily Autocorrelation and Mean Temperature/Moisture Rise as Determining Factors for Future Heatwave Patterns in the United States. *J Appl. Meteorol. Clim.*, <https://doi.org/10.1175/JAMC-D-19-0291.1>.
- Simonson, J, S.D. Birkel, P.A. Mayewski, K. Maasch, B. **Lyon**, and A.M. Carlton, 2020: Historical Incidence of Mid-Autumn Wind Storms in New England. *Meteorol. Appl.* (in press).
- Vigaud, N., B. **Lyon**, and D.E. Lee, 2020: Subseasonal convection variability over the Intra-American Seas simulated by an AGCM and sensitivity to CMIP5 SST biases and projections. *Int. J. Climatol.*, 1-19, DOI: 10.1002/joc.6475.
- Lyon**, B., A.G. Barnston, E.D. Coffel, and R.M. Horton, 2019: Projected Increase in the Spatial Extent of Contiguous U.S. Summer Heat Waves and Associated Attributes. *Environ. Res. Lett.*, **14**, 114029, <https://doi.org/10.1088/1748-9326/ab4b41>.
- Roy, T., J.B. Valdes, B. **Lyon**, A. Serrat-Capdevila, H.V. Gupta, R. Valdes-Pineda, M. Durcik, and E. Demario, 2018: Assessing Hydrological Impacts of Short-term Climate Change in the Mara River Basin of East Africa. *J. Hydrol.*, **566**, 818-829.
- Birkel, S., P.A. Mayewski, K. Maasch, A. Kurbatov, and B. **Lyon**, 2018: Evidence for a volcanic underpinning of the Atlantic Multidecadal Oscillation. *npj Clim. Atmos. Sci.*, 1:24, doi:10.1038/s41612-018-0036-6.
- Giannini, A., B. **Lyon**, R. Seager, and N. Vigaud, 2018: Dynamical and Thermodynamic Elements of Modeled Climate Change at the East African Margin of Convection. *Geophys. Res. Lett.*, **45**, <https://doi.org/10.1002/2017GL075486>.
- Lyon**, B., and N. Vigaud, 2017: Unraveling East Africa's Climate Paradox. In, *Patterns of Climate Extremes: Trends and Mechanisms*, S-Y. Wang, Ed., John Wiley and Sons, pp. 265-281, doi: 10.1002/9781119068020.ch16.
- Lyon**, B., and A.G. Barnston, 2017: Diverse Characteristics of U.S. Summer Heat Waves. *J. Climate*, **30**, 7827-7845.
- Lyon**, B., T. Dinku, A. Raman and M.C. Thomson, 2017: Temperature Suitability for Malaria Climbing the Ethiopian Highlands. *Environ. Res. Lett.*, **12**, 064015.
- Thomson, M.C., I. Ukawuba, C.L. Hershey, A. Bennett, P. Ceccato, B. **Lyon**, and T. Dinku, 2017: Using Rainfall and Temperature Data in the Evaluation of National Malaria Control Programs in Africa. *Am. J. Trop. Med. Hyg.*, **97**, 32-45.
- Vigaud, N., B. **Lyon**, and A. Giannini, 2016: Sub-seasonal teleconnections between convection over the Indian Ocean, the East African long rains and tropical Pacific surface temperatures. *Int. J. Climatol.* 10.1002/joc.4765.
- Schubert, S.D., R.E. Stewart, H. Wang, M. Barlow, H. Berbery, W. Cai, M.P. Hoerling, K.K. Kanikicharla, R.D. Koster, B. **Lyon**, A. Mariotti, C.R. Mechoso, O.V. Mueller, B. Rodriguez-Fonseca, R. Seager, S.I. Seneviratne, L. Zhang, T. Zhou,

- 2016: Global Meteorological Drought: A Synthesis of Current Understanding with a Focus on SST Drivers of Precipitation Deficits. *J. Climate*, **29**, 3989-4019.
- Rao, M.P., N.K. Davi, R.D. D'Arrigo, J. Skees, B. Nachin, C. Leland, B. **Lyon**, S-H. Wang, and O. Byamnasuren, 2015: Dzuds, droughts, and livestock mortality in Mongolia. *Environ. Res. Lett.*, 10 074012 doi:10.1088/1748-9326/10/7/074012.
- Seager, R., M. Hoerling, S. Schubert, H. Wang, B. **Lyon**, A. Kumar, J. Nakamura, and N. Henderson, 2015: Causes and Predictability of the 2011 to 2014 California Drought. *J. Climate*, **28**, 6997–7024.
- Barnston, A.G., and B. **Lyon**, 2015: Does the NMME Capture a Recent Decadal Shift Toward Increasing Drought Occurrence in the Southwestern US? *J. Climate*, **29**, 561-581.
- Yang, W., R. Seager, M.A. Cane, and B. **Lyon**, 2015: The Rainfall Annual Cycle Bias over East Africa Induced by CMIP5 Coupled Climate Models. *J. Climate*, **28**, 9789-9802.
- Mo. K.C., and B. **Lyon**, 2015: Global Prediction of the Standardized Precipitation Index Using the NMME. *J. Hydrometeor.*, **16**, 1409-1424.
- Yang, W., R. Seager, M.A. Cane, and B. **Lyon**, 2015: The Annual Cycle of East African Precipitation. *J. Climate*, **28**, 2385–2404.
- Ruiz, D., C. Brun, S.J. Connor, J.A. Omumbo, B. **Lyon**, and M.C. Thomson, 2014: Testing a multi-malaria-model ensemble against 30 years of data in the Kenyan highlands. *Malaria Journal*, **13**:206, doi:10.1186/1475-2875-13-206.
- Lyon**, B., 2014: Seasonal Drought in East Africa and its Recent Increase During the March-May Long Rains. *Journal of Climate*, **27**, 7953-7975.
- Lyon**, B., A. Giannini, P. Gonzalez, and A.W. Robertson, 2014: The Role of Targeted Climate Research at the IRI. *Earth Perspectives*, **1**:18, doi:10.1186/2194-6434-1-18.
- Yang, W., R. Seager, M.A. Cane, and B. **Lyon**, 2014: The East African Long Rains in Observations and Models. *J. Climate*, **27**, 7185–7202.
- Garcia, K., R. Lasco, A. Ines, B. **Lyon**, and F. Pulhin, 2013: Predicting geographic distribution and habitat suitability due to climate change of selected threatened forest tree species in the Philippines. *Applied Geography*, **44**, 12-22.
- Funk, C., G. Husak, J. Michaelsen J., S. Shraddhanand, A. Hoell, B. **Lyon**, M.P. Hoerling, B. Liebmann, T. Zhang, J. Verdin, G. Galu, G. Eilerts, and J. Rowland, 2013: Attribution of 2012 and 2003-2012 Rainfall Deficits in Eastern Kenya and Southern Somalia, in “Explaining Extreme Events of 2012 from a Climate Perspective.” *Bulletin of the American Meteorological Society*, **94**, S45-S48.
- Lyon**, B., A.G. Barnston, and D.G. DeWitt, 2013: Tropical Pacific Forcing of a 1998-99 Climate Shift: Observational Analysis and Climate Model Results for the Boreal Spring Season. *Climate Dynamics*, doi 10.1007/s00382-013-1891-9.

- L'Heureux, M.L., S. Lee and B. **Lyon**, 2013: Recent multidecadal strengthening of the Walker circulation across the tropical Pacific. *Nature Climate Change*, **3**, 571-576. doi:10.1038/nclimate1840doi:10.1038/nclimate1840.
- Quan, X., M.P. Hoerling, B. **Lyon**, A. Kumar, M.A. Bell, M.K. Tippett, and H. Wang, 2012: Prospects for Dynamical Prediction of Meteorological Drought. *Journal of Applied Meteorology and Climatology*, **51**, 1238-1252.
- Lyon**, B., M.A. Bell, M.K. Tippett, A. Kumar, M.P. Hoerling, X.W. Quan and H. Wang, 2012: Baseline Probabilities for the Seasonal Prediction of Meteorological Drought. *Journal of Applied Meteorology and Climatology*, **51**, 1222-1237.
- Lyon**, B., and D.G. DeWitt, 2012: A recent and abrupt decline in the East African long rains. *Geophysical Research Letters*, **39**, L02702, doi:10.1029/2011GL050337.
- Omumbo, J.A., B. **Lyon**, S.M. Waweru, S.J. Connor and M.C. Thomson, 2011: Raised temperatures over the Kericho Tea Estates: Revisiting the climate in the East African highlands malaria debate. *Malaria Journal*, **10**:12 doi:10.1186/1475-2875-10-12.
- Lyon**, B., 2009: Southern Africa Summer Drought and Heat Waves: Observations and Coupled Model Behavior. *Journal of Climate*, **22**, 6033-6046.
- Schubert, S. and co-authors, 2009: A USCLIVAR Project to Assess and Compare the Responses of Global Climate Models to Drought-Related SST Forcing Patterns: Overview and Results. *Journal of Climate*, **22**, 5251-5272.
- Moron, V., A. Lucero, F. Hilario, B. **Lyon**, A.W. Robertson, and D. Dewitt, 2009: Spatio-temporal variability and predictability of summer monsoon onset over the Philippines. *Climate Dynamics*, **33**, 1159-1177.
- Lyon**, B., and S.J. Mason, 2009: The 1997-98 Summer Rainfall Season in Southern Africa. Part II: Model Simulations and Coupled Model Forecasts. *Journal of Climate*, **22**, 3802-3818.
- Lyon**, B., and S.J. Camargo, 2009: The seasonally-varying influence of ENSO on rainfall and tropical cyclone activity in the Philippines. *Climate Dynamics*, **32**, 125-141.
- Lyon**, B., L. Zubair, V. Ralapanawe, and Z. Yahiya, 2009: Fine-scale evaluation of drought hazard for tropical climates: Case study in Sri Lanka. *Journal of Applied Meteorology and Climatology*, **48**, 77-88.
- Lyon**, B., and S.J. Mason, 2007: The 1997-98 Summer Rainfall Season in Southern Africa Part I: Observations. *Journal of Climate*, **20**, 5134-5148.
- Lyon**, B., H. Cristi, E.R. Verceles, F.D. Hilario, and R. Abastillas, 2006: Seasonal Reversal of the ENSO Rainfall Signal in the Philippines. *Geophysical Research Letters*, **33**, L24710, doi:10.1029/2006GL028182.
- Lyon**, B., 2006: Robustness of the influence of El Niño the spatial extent of tropical drought. *Advances in Geosciences*, **6**, 207-209.
- Lyon**, B., and A.G. Barnston, 2005: ENSO and the Spatial Extent of Interannual

- Precipitation Extremes in Tropical Land Areas. *Journal of Climate*, **18**, 5095-5109.
- Lyon**, B., N. Christie-Blick, and Y. Gluzberg, 2005: Water Shortages, Development, and Drought in Rockland County NY. *Journal of the American Water Resources Association*, **41**, Issue 6, 1457-1469.
- Barlow, M., M. Wheeler, B. **Lyon**, and H. Cullen, 2005: Modulation of Daily Precipitation over Southwest Asia by the Madden-Julian Oscillation. *Monthly Weather Review*, **133**, 3579-3594.
- Lyon**, B., 2004: The strength of El Niño and the spatial extent of tropical drought. *Geophysical Research Letters*, **31**, L21204.
- Lyon**, B., 2003: Enhanced Seasonal Rainfall in Northern Venezuela and the Extreme Events of December 1999. *Journal of Climate* **16**, 2302-2306.
- Lyon**, B., 2003: Regional Climate of Central America, South Asia, China, and Central Southwest Asia. In State of the Climate in 2002, A.M. Waple and J.H. Lawrimore, Eds. *Bulletin of the American Meteorological Society*, Vol. **83**, No. 6, S1-S62.
- Barlow, M., H. Cullen and B. **Lyon**, 2002: Drought in Central and Southwest Asia: La Niña, the Warm Pool, and Indian Ocean Precipitation. *Journal of Climate Letters*, **15**, 697-700.
- Tippett, M. K., M. Barlow and B. **Lyon**, 2002: Statistical Correction of Central Southwest Asia Winter Precipitation Simulations. *International Journal of Climatology*, **23**, 1421-1433.
- Waple, A.M. and co-authors, 2002: Climate Assessment for 2001. *Bulletin of the American Meteorological Society*, Vol. **83**, No. 6, S1-S62.
- Lawrimore, J.H. and co-authors, 2001: Climate Assessment for 2000. *Bulletin of the American Meteorological Society*, Vol. **82**, No. 6, S1-S55.
- Lyon**, B. and R.M. Dole, 1995: A diagnostic Comparison of the 1980 and 1988 US Summer Heat Wave - Droughts. *Journal of Climate*, **8**, 1658-1675.

BOOK CHAPTERS

- Contributing Author, *Climate Matters in Health Decision-Making*. In: Macfarlane S., AbouZahr C. (eds), The Palgrave Handbook of Global Health Data Methods for Policy and Practice. Palgrave Macmillan, London, 2019.
- Contributing Author, *Climate Information for Public Health Action*, M.C. Thomson, Ed. Routledge, New York, NY, 264 pp, 2018.
- **Lyon**, B., and N. Vigaud, 2017: Unraveling East Africa's Climate Paradox. In, *Patterns of Climate Extremes: Trends and Mechanisms*, S-Y. Wang, Ed., John Wiley and Sons, pp. 265-281, doi: 10.1002/9781119068020.ch16.
- Contributing Author, *Managing Climate Risk in Water Supply Systems*. C. Brown and M.N. Ward, Eds. IWA Publishing, London, 147 pp., 2013.

- Ropelewski, C.F. and B. Lyon, 2002: Climate Information Systems and Their Applications. In *Current Uncertainties in the Climate System*, Springer-Verlag, Ch. 4.

ADDITIONAL ARTICLES and REPORTS

- Fernandez, I., S. Birkel, C. Schmitt, J. Simonson, B. Lyon, A. Pershing, E. Stancioff, G. Jacobson, and P. Mayewski, 2020: *Maine's Climate Future 2020 Update*. Orono, ME: University of Maine. climatechange.umaine.edu/climate-matters/maines-climate-future/
- Seager, R., M. Hoerling, S. Schubert, H. Wang, B. Lyon, A. Kumar, J. Nakamura, and N. Henderson, 2015: Causes and Predictability of the 2011 to 2014 California Drought. NOAA Drought Task Force Report, Available at: http://cpo.noaa.gov/sites/cpo/MAPP/TaskForces/DTF/californiadrought/california_drought_report.pdf, 42 pp.
- A. AghaKouchak, H. Berbery, J. Dong, M. Hoerling, A. Kumar, V. Lakshmi, R. Leung, J. Li, X. Liang, L. Luo, B. Lyon, D. Miskus, K. Mo, X. Quan, S. Schubert, R. Seager, S. Sorooshian, H. Wang, Y. Xia, N. Zeng, 2013: An Interpretation of the Origins of the 2012 Central Great Plains Drought. *Report by the NOAA Drought Task Force*, 44 pp. Available at: <ftp://ftp.oar.noaa.gov/CPO/pdf/mapp/reports>.
- Wawerul, S.M., J.A. Omumbo, B. Lyon, M.C. Thomson, and S.J. Connor, 2011: Revisiting the East African malaria debate. *WMO Bulletin*, **60**, 9-13.
- Lyon, B., 2008: Summer Drought and Heat Waves in Southern Africa: Observations and Coupled Model Behavior. *US CLIVAR Variations*, Vol. 6, No. 3, 1-4.
- Moron, V., A. Lucero, F. Hillario, D. DeWitt, B. Lyon, A.W. Robertson, 2007: Seasonal predictability of monsoon onset over the Philippines. *CLIVAR Exchanges*, Vol. 12, No. 4.
- Lyon, B., and A. G. Barnston, 2005: The Evolution of the Weak "El Niño" of 2004-2005. *CLIVAR Variations*, Spring 2005, Vol. 3, No. 2.

RECENT CONFERENCE PRESENTATIONS and INVITED TALKS

- Lyon, B., and S. Birkel, 2020: Historical and Projected High Heat and Associated Impacts in Maine. *Webinar for Working Groups of the Maine Climate Council*. 6 February 2020.
- Lyon, B., 2020: Linking Coupled Model Errors in Simulating East African Climatological Rainfall to Model Biases in SSTs. *33rd Conference on Climate Variability and Change*. AMS Annual Meeting, Boston, MA, 13 January 2020.
- Lyon, B., A.G. Barnston, E.D. Coffel, and R.M. Horton, 2020: Projected Increase in the Spatial Extent of U.S. Summer Heat Waves and Implications for the Energy Sector. *11th Conference on Weather, Climate, and the New Energy Economy*. AMS Annual Meeting, Boston, MA, 13 January 2020.
- Lyon, B., A.G. Barnston, E.D. Coffel, and R.M. Horton, 2019: Projected Increase in the

- Spatial Extent of Contiguous U.S. Summer Heat Waves and Associated Attributes. *Workshop on Correlated Extremes*, Columbia University, May 29-31, 2019.
- Lyon, B., N. Vigaud, and R. Seager, 2019: The Influence of CMIP5 Tropical SST Biases on Simulations of Regional Climate. *32nd Conference on Climate Variability and Change*. AMS Annual Meeting, Phoenix, AZ, 7 January 2019.
- Lyon, B., 2019: Diagnostic Assessment and Potential Predictability of Regional and Large-Scale Wind Droughts in the Conterminous United States. *10th Conference on Weather, Climate, and the New Energy Economy*. AMS Annual Meeting, Phoenix, AZ, 9 January 2019.
- Lyon, B., A. Giannini, R. Seager, and N. Vigaud, 2018: Dynamical and thermodynamic elements of modeled climate change at the East African margin of convection. *31st Conference on Climate Variability and Change*. AMS Annual Meeting, Austin, TX, 10 January 2018.
- Lyon, B., A. Giannini, R. Seager and N. Vigaud, 2018: Sea Surface Temperature Biases in CMIP5 Coupled Models and Their Implications for Regional Climate Simulations and Projections. *31st Conference on Climate Variability and Change*. AMS Annual Meeting, Austin, TX, 10 January 2018.
- Lyon, B., A. Giannini, R. Seager, and N. Vigaud, 2017: Whither East African Climate? *Department of Environmental Sciences seminar, Rutgers University*. New Brunswick, NJ, 28 April 2017. (INVITED)
- Lyon, B., A. Giannini, and N. Vigaud, 2017: Interpreting Climate Change Projections for Eastern Africa. *American Association of Geographers Annual Meeting*. Boston, MA, 7 April 2017. (INVITED)
- Lyon, B., 2017: Near-Term Climate Change Scenarios for the Bicol Region. *5th Technical Workshop on Models and Tools for Water, Agriculture and Knowledge Sharing*. Naga City, Philippines, 15 March 2017.
- Lyon, B., 2017: Uncertainties of Climate Change. *New Directions in Environmental Law Conference*. Yale University, New Haven, CT, 25 February 2017. (INVITED)
- Lyon, B., Variations in the Spatial Distribution, Persistence (and Dynamics) of U.S. Summer Heat Waves. *29th Conference on Climate Variability and Change, AMS Annual Meeting*, 24 January 2017.
- Lyon, B., 2017: Connecting Climate and Health Outcomes: A Climate Perspective. *8th Conference on Environment and Health, AMS Annual Meeting*, 24 January 2017 (INVITED).
- Lyon, B., T. Dinku, and M.C. Thomson, 2017: Temperature Suitability for Malaria Climbing the Ethiopian Highlands. *8th Conference on Environment and Health, AMS Annual Meeting*, 25 January 2017.
- Lyon, B., 2016: A Global Perspective on the Seasonal Prediction of Drought and Pluvials by the NMME During 2015-16. *41st Climate Diagnostics and Prediction Workshop*, University of Maine, Orono, 3-6 October 2016.

- Lyon, B., 2016: What Question, What Data and Why it Matters to Ask. *Health and Climate Colloquium*, Columbia University, New York, NY 8-10 June 2016. (INVITED)
- Lyon, B., 2016: Maine's Climate in a Warmer World. *Maine Department of Environmental Protection Hydrogeological Technical Meeting*, Augusta, ME, 26 April 2016.
- Lyon, B., 2016: Means, Extremes and the Changing Character of Maine's Climate. *Maine Sustainability and Water Conference*, 2016. Augusta, ME, 29 March 2016.
- Lyon, B., A. Giannini, and N. Vigaud, 2016: Interpreting CMIP5 Climate Projections for East Africa. *28th Conference on Climate Variability and Change*, American Meteorological Society Annual Meeting, New Orleans, LA 11-14 January 2016.
- Lyon, B., 2016: Anticipating Climate Variability and Change: A National Perspective. *Seventh Conference on Weather, Climate, Water and the New Energy Economy*. American Meteorological Society Annual Meeting, New Orleans, LA 11-14 January 2016. (INVITED)
- Lyon, B., 2015: Assessing the Feasibility of Seasonal Streamflow Prediction in the Bicol Region Using CPT. *Third Technical Workshop on Models and Tools for Water, Agriculture and Knowledge Sharing*, Naga City, Philippines, 25-27 February 2015.
- Lyon, B., A. Giannini, and N. Vigaud, 2014: Seasonal Drought in the Greater Horn of Africa and its Recent Increase During the March-May Long Rains. *WCRP, An International Global Drought Information System Workshop*, 11-13 December 2014. (INVITED)
- Lyon, B., 2014: Approaches to Seasonal Drought Prediction. *Second Workshop on a National PRONACOSE*. Mexico City, Mexico, 24-26 Nov 2014. (INVITED)
- Lyon, B., 2014: Rainfall, Inflows and Inflow Predictions for the Lower Colorado Using the NMME. *LCRA Project Workshop*, 24 September 2014.
- Lyon, B., 2014: The Climate of East Africa: Past, Present and Future. *Strengthening National Climate Data and Information for Malaria Decision-Making in Africa*, Dar es Salaam, Tanzania, 4-5 August 2014.
- Lyon, B., 2014: Climate and Future Water Availability. *Texas Water Summit 2014*, Austin, TX, 19 May 2014. (INVITED)
- Lyon, B., A.G. Barnston, D.G. DeWitt, A. Giannini, and N. Vigaud, 2014: Recent East African Droughts and the Global Climate Shift of 1998-99. *26th Conference on Climate Variability and Change*, Atlanta, GA, 2-6 February 2014.