

# Patrick J. Bartlein

## CONTACT INFORMATION

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## EDUCATION

Univ. Wisconsin -- Madison, (Geography) B.A. June 1972; M.S. June 1975; Ph.D. August 1978

## RESEARCH INTERESTS

Paleoclimatology; Data Analysis and Visualization; Environmental Modeling

## TEACHING INTERESTS

Climatology; Environmental Change; Data Analysis and Visualization in Geography

## POSITIONS HELD

University of Oregon, Department of Geography: Professor (Sept. 1994 - present), Associate Professor (April 1986 - Sept. 1994), Assistant Professor (Sept. 1982 - April 1986); Brown University, Department of Geological Sciences: Research Associate and Visiting Assistant Professor (Research) (May 1981 - Aug. 1984); Boston University, Department of Geography: Assistant Professor (Sept. 1979 - Aug. 1982). Center for Energy and Environmental Studies: Research Associate (Sept. 1980 - Aug. 1982); University of Iowa, Department of Geography: Visiting Assistant Professor (Jan. 1979 - May 1979); University of Wisconsin -- Madison, Institute for Environmental Studies: Research Associate (post-doc) (Sept. 1978 - Aug. 1979).

## DEPARTMENTAL AND UNIVERSITY SERVICE

Graduate Council (1991-1993); UO Educational Technology Committee (2007); College of Arts and Science Curriculum Committee (2005-2007); University Undergraduate Council (2006-2007); outside member, Mikesell Chair (Economics) search committee (2001); multiple departmental search committees. Personnel and Promotion-and-Tenure Committees: Department of Geography Personnel Committee (1997-2002, 2006-present); College of Arts and Sciences Dean's Advisory Committee (2011-2013, Chair 2012-2013); University Faculty Personnel Committee (1998-2000; 2014-2015).

## PROFESSIONAL MEMBERSHIPS

American Association for the Advancement of Science; American Geophysical Union; American Quaternary Association; American Association of Geographers

## EDITORIAL BOARD SERVICE

Current: *Quaternary Research* (Associate Editor); *Annals*, Association of American Geographers, Past: *The Holocene* (Associate Editor); *Quaternary Science Reviews*; *Geology*

## MANUSCRIPT REVIEWS

*Annals*, Association of American Geographers, *Climates of the Past*, *Climate Dynamics*, *Ecology*, *Geographie Physique et Quaternaire*, *Geological Society of America Bulletin*, *Geology*, *Global Change Biology*, *The Holocene*, *J. Biogeography*, *J. Geophysical Research*, *J. Vegetation Science*, *Nature*, *PNAS*, *Professional Geographer*, *Quaternary Research*, *Quaternary Science Reviews*, *Reviews of Geophysics*, *Science*, *Water Resources Bulletin*.

## PROPOSAL REVIEWS

National Science Foundation: Climate Dynamics Program, Division of Polar Programs, Ecology Program, Geography and Regional Science Program, Division of Earth Sciences, Instrumentation and Facilities, Continental Hydrologic Processes, Earth-System History Program, Arctic System Science, Paleoclimatology Program. NOAA: Office of Global Programs. European Science Foundation. Natural Environment Research Council

## GRADUATE AND POST-GRADUATE STUDENT TRAINING

Post-doctoral advisor (2); Ph.D. (12 as chair, 20 as committee member) Masters (8 as chair, 32 as committee member)

## HONORS

Fellow, American Association for the Advancement of Science (AAAS), 2008; American Quaternary Association (AMQUA) Distinguished Career Award, 2016; American Association of Geographers (AAG) Distinguished Scholarship Honors, 2017.

RECENT PUBLICATIONS (225 total; WOS: 218 indexed, 20,839 citations, 12 highly cited; h-index: 79)

Marshall, J.A., J.J. Roering, A.W. Remple, S.L. Shafer and P.J. Bartlein, 2021, Extensive frost weathering across unglaciated North America during the Last Glacial Maximum. *Geophysical Research Letters* 48, e2020GL090305 <https://doi.org/10.1029/2020GL090305>

Otto-Bliesner, B.L. Brady, E.C., Tomas, R.A., Albani, S., Bartlein, P.J., Mahowald, N.M., Shafer, S.L., Kluzek, E., Lawrence, P.J., Leguy, G., Rothstein, M., Sommers, A.N. 2020, A Comparison of the CMIP6 midHolocene and lig127k Simulations in CESM, Paleoclimatology and Paleoclimatology 11 e2020PA003957, <http://doi.org/10.1029/2020PA003957>

Brierley, C. M., Zhao, A., Harrison, S. P., Braconnot, P., Williams, C. J. R., Thornalley, D. J. R., Shi, X., Peterschmitt, J.-Y., Ohgaito, R., Kaufman, D. S., Kageyama, M., Hargreaves, J. C., Erb, M. P., Emile-Geay, J., D'Agostino, R., Chandan, D., Carré, M., Bartlein, P., Zheng, W., Zhang, Z., Zhang, Q., Yang, H., Volodin, E. M., Tomas, R. A., Routson, C., Peltier, W. R., Otto-Bliesner, B., Morozova, P. A., McKay, N. P., Lohmann, G., Legrande, A. N., Guo, C., Cao, J., Brady, E., Annan, J. D., and Abe-Ouchi, A.: in review, 2020, Large-scale features and evaluation of the PMIP4-CMIP6 midHolocene simulations, *Clim. Past.* 16:1847-1872, <https://doi.org/10.5194/cp-2019-168>

Holiday, V.T., P.J. Bartlein, A.C. Scott, J.R. Marlon, 2020, Extraordinary biomass-burning episode and impact winter triggered by the Younger Dryas cosmic impact ~ 12.800 years ago, Parts 1 and 2: a discussion. *J. Geology* 128:69-94. <https://doi.org/10.1086/706264>

Bartlein, P.J., and S.L. Shafer, 2019, Paleo calendar-effect adjustments in time-slice and transient climate-model simulations (PaleoCalAdjust v1.0): impact and strategies for data analysis. *Geosci. Model Dev.* 12:3889-3913.

Harrison, S. P., Bartlein, P. J., Brovkin, V., Houweling, S., Kloster, S., & Prentice, I. C. (2018). The biomass burning contribution to climate–carbon-cycle feedback. *Earth Syst. Dynam.*, 9(2), 663-677.

Hostetler, S.W., P.J. Bartlein and J.R. Alder, 2018, Atmospheric and surface climate associated with 1986–2013 wildfires in North America. *Journal of Geophysical Research: Biogeosciences*, 123(5), 1588-1609.

Marsicek, J., B.N. Shuman, P.J. Bartlein, S.L. Shafer & S. Brewer, 2018, Reconciling divergent trends and millennial variations in Holocene temperatures. *Nature* 554:92

Bartlein, P.J., S.P. Harrison and K. Izumi, 2017, Underlying causes of Eurasian mid-continental aridity in simulations of mid-Holocene climate, *Geophysical Research Letters*. DOI:10.1002/2017GL074476

Marlon, J.R., R. Kelly, A.L. Daniau, B. Vannière, M.J. Power, P. Bartlein, P. Higuera, O. Blarquez, S. Brewer, T. Brucher, A. Feurdean, G.G. Romera, V. Iglesias, S.Y. Maizumi, B. Magi, C.J. Courtney Mustaphi & T. Zhihai, 2016, Reconstructions of biomass burning from sediment-charcoal records to improve data–model comparisons. *Biogeosciences* 13:3225-3244.

Harrison, S.P., P.J. Bartlein, K. Izumi, G. Li, J. Annan, J. Hargreaves, P. Braconnot and M. Kageyama, 2015, Implications of evaluation of CMIP5 palaeosimulations for climate projections. *Nature Climate Change* 8:735-743.

Izumi, K., Bartlein, P.J., Harrison, S.P., 2015. Energy-balance mechanisms underlying consistent large-scale temperature responses in warm and cold climates. *Climate Dynamics*. 44:3111-3127. DOI 10.1007/s00382-014-2189-2

Harrison, S.P., Bartlein, P.J., Brewer, S., Prentice, I.C., Boyd, M., Hessler, I., Holmgren, K., Izumi, K., Willis, K., 2014. Climate model benchmarking with glacial and mid-Holocene climates. *Climate Dynamics* 43, 671-688.

Izumi, K., P.J. Bartlein and S.P. Harrison, 2013, Consistent large-scale temperature responses in warm and cold climates, *Geophysical Research Letters*, DOI: 10.1002/grl.50350

Marlon, J.R. P.J. Bartlein, A.-L. Daniau, S.P. Harrison, S.Y. Maesumi, M.J. Power, W. Tinner, B. Vannière, 2013, Global biomass burning: a synthesis and review of Holocene paleofire records and their controls. *Quaternary Science Reviews* 65:5-25

Braconnot, P., S.P. Harrison, M. Kageyama, P.J. Bartlein, V. Masson-Delmotte, A. Abe-Ouchi, B. Otto-Bliesner & Y. Zhao, 2012, Evaluation of climate models using palaeoclimatic data. *Nature Climate Change* 2:417-424, doi:10.1038/nclimate1456.

Clark, P.U., J.D. Shakun, P.A. Baker, P.J. Bartlein, S. Brewer, E. Brook, A.E. Carlson, H. Cheng, D.S. Kaufman, Z. Liu, T.M. Marchitto, A.C. Mix, C. Morrill, B.L. Otto-Bliesner, K. Pahnke, J.M. Russell, C. Whitlock, J.F. Adkins, J.L. Blois, J. Clark, S.M. Colman, W.B. Curry, B.P. Flower, F. He, T.C. Johnson, J. Lynch-Stieglitz, V. Markgraf, J. McManus, J.X. Mitrovica, P.I. Moreno & J.W. Williams, 2012, Global climate evolution during the last deglaciation. *Proceedings of the National Academy of Sciences* doi:10.1073/pnas.1116619109

Marlon, J.R., P.J. Bartlein, D.G. Gavin, C.J. Long, R.S. Anderson, C.E. Briles, K.J. Brown, D. Colombaroli, D.J. Hallett, M.J. Power, E.A. Scharf & M.K. Walsh, 2012, Long-term perspective on wildfires in the western USA. *Proceedings of the National Academy of Sciences* 109:E535-E543.