

# Patrick J. Bartlein

## CONTACT INFORMATION

Department of Geography, University of Oregon, Eugene, Oregon 97403-1251  
phone: +1 541 346 4967; email: [bartlein@uoregon.edu](mailto:bartlein@uoregon.edu); www: <https://pjbartlein.github.io>  
ResearcherID: E-4643-2011; ORCID: 0000-0001-7657-5685; [Google Scholar](#)

## PERSONAL DATA

Date of Birth: October 21, 1950, (Milwaukee, WI); Married (Patricia F. McDowell); Citizenship: U.S.A.

## 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

## EMPLOYMENT HISTORY

University of Oregon, Department of Geography: Professor (Sept. 1994 - present), Associate Professor (April 1986 - Sept. 1994), Assistant Professor (Sept. 1982 - April 1986). Climatology, environmental change, data analysis and visualization in geography.

Brown University, Department of Geological Sciences: Research Associate and Visiting Assistant Professor (Research) (May 1981 - Aug. 1984). Reconstruction of paleoclimatic variations in eastern North America.

Boston University, Department of Geography: Assistant Professor (Sept. 1979 - Aug. 1982). Introductory climatology, physical climatology, mathematical models for environmental assessment; Center for Energy and Environmental Studies: Research Associate (Sept. 1980 - Aug. 1982). Statistical consulting and program development.

University of Iowa, Department of Geography: Visiting Assistant Professor (Jan. 1979 - May 1979). Introduction to weather and climate, geographical analysis.

University of Wisconsin -- Madison, Institute for Environmental Studies: Research Associate (post-doc) (Sept. 1978 - Aug. 1979). Further studies of the effects of climatic variations on the water supplies and levels of the Great Lakes; Department of Geography: Teaching Assistant (Sept. 1973 - Dec. 1974). Laboratory instructor in physical geography;

## 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

## PUBLICATIONS

Bartlein, P.J., and S.L. Shafer, 2018, Paleo calendar-effect adjustments in time-slice and transient climate-model simulations (PaleoCalAdjust v1.0): impact and strategies for data analysis. *Geoscientific Model Development Discussions*, 1-36. <https://doi.org/10.5194/gmd-2018-283>

Long, C. J., J. J. Shinker, T. A. Minckley, M. J. Power and P. J. Bartlein (2019). A 7600 yr vegetation and fire history from Anthony Lake, northeastern Oregon, USA, with linkages to modern synoptic climate patterns." *Quaternary Research* 91(2): 705-713. <https://doi.org/10.1017/qua.2018.124>

Carter, V. A., M. J. Power, Z. J. Lundeen, J. L. Morris, K. L. Petersen, A. Brunelle, R. S. Anderson, J. J. Shinker, L. Turney, R. Koll and P. J. Bartlein (2018). A 1,500-year synthesis of wildfire activity stratified by elevation from the US Rocky Mountains. *Quaternary International* 488: 107-119. <https://doi.org/10.1016/j.quaint.2017.06.051>

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. <https://doi.org/10.5194/esd-9-663-2018>

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.

<https://doi.org/10.1029/2017JG004195>

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. <https://dx.doi.org/10.1038/nature25464> News & Views: <http://dx.doi.org/10.1038/d41586-018-00943-4>

Kageyama, M., P. Braconnot, S.P. Harrison, A.M. Haywood, J. Jungclauss, B.L. Otto-Bliesner, J.Y. Peterschmitt, A. Abe-Ouchi, S. Albani, P.J. Bartlein, C. Brierley, M. Crucifix, A. Dolan, L. Fernandez-Donado, H. Fischer, P.O. Hopcroft, R.F. Ivanovic, F. Lambert, D.J. Lunt, N.M. Mahowald, W.R. Peltier, S.J. Phipps, D.M. Roche, G.A. Schmidt, L. Tarasov, P.J. Valdes, Q. Zhang & T. Zhou, 2018, PMIP4-CMIP6: the contribution of the Paleoclimate Modelling Intercomparison Project to CMIP6. *Geosci. Model Dev.* 11:1033–1057.

<https://dx.doi.org/doi:10.5194/gmd-11-1033-2018>

Otto-Bliesner, B.L., P. Braconnot, S.P. Harrison, D.J. Lunt, A. Abe-Ouchi, S. Albani, P.J. Bartlein, E. Capron, A.E. Carlson, A. Dutton, H. Fischer, H. Goelzer, A. Govin, A. Haywood, F. Joos, A.N. Legrande, W.H. Lipscomb, G. Lohmann, N. Mahowald, C. Nehrbaas-Ahles, F.S.R. Pausata, J.Y. Peterschmitt, S. Phipps & H. Renssen, 2017, The PMIP4 contribution to CMIP6 - Part 2: Two Interglacials, Scientific Objective and Experimental Design for Holocene and Last Interglacial Simulations. *Geosci. Model Dev.* 10:39–403. <https://dx.doi.org/10.5194/gmd-10-3979-2017>

Marlon, J.R., N. Pederson, C. Nolan, S. Goring, B. Shuman, A. Robertson, R. Booth, P.J. Bartlein, M.A. Berke, M. Clifford, E. Cook, A. Dieffenbacher-Krall, M.C. Dietze, A. Hessler, J.B. Hubeny, S.T. Jackson, J. Marsicek, J. McLachlan, C.J. Mock, D.J.P. Moore, J. Nichols, D. Peteet, K. Schaefer, V. Trouet, C. Umbanhowar, J.W. Williams & Z. Yu, 2017, Climatic history of the northeastern United States during the past 3000 years. *Clim. Past* 13:1355–1379. <https://doi.org/10.5194/cp-13-1355-2017>

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*. 44:1–9, <http://dx.doi.org/10.1002/2017GL074476>

Carter, V. A., M. J. Power, Z. J. Lundeen, J. L. Morris, K. L. Petersen, A. Brunelle, R. S. Anderson, J. J. Shinker, L. Turney, R. Koll & P. J. Bartlein, 2017, A 1,500-year synthesis of wildfire activity stratified by elevation from the U.S. Rocky Mountains. *Quaternary International*. <http://dx.doi.org/10.1016/j.quaint.2017.06.051>

Kageyama, M., S. Albani, P. Braconnot, S.P. Harrison, P.O. Hopcroft, R.F. Ivanovic, F. Lambert, O. Marti, W.R. Peltier, J.Y. Peterschmitt, D.M. Roche, L. Tarasov, X. Zhang, E.C. Brady, A.M. Haywood, A.N. LeGrande, D.J. Lunt, N.M. Mahowald, U. Mikolajewicz, K.H. Nisancioglu, B.L. Otto-Bliesner, H. Renssen, R.A. Tomas, Q. Zhang, A. Abe-Ouchi, P.J. Bartlein, J. Cao, G. Lohmann, R. Ohgaito, X. Shi, E. Volodin, K. Yoshida, X. Zhang & W. Zheng, 2017, The PMIP4 contribution to CMIP6 – Part 4: Scientific objectives and experimental design of the PMIP4-CMIP6 Last Glacial Maximum experiments and PMIP4 sensitivity experiments. *Geosci. Model Dev. Discuss.* 2017:1–33. <https://doi.org/10.5194/gmd-2016-106>

Daniels, S. & P.J. Bartlein, 2016, Charting time. *Annals of the American Association of Geographers* 107:28–32. <https://doi.org/10.1080/24694452.2016.1230420>

Izumi, K. and P.J. Bartlein, 2016, North American paleoclimate reconstructions for the last glacial maximum using an inverse-modeling through iterative-forward-modeling (IMIFM) approach applied to pollen data. *Geophysical Research Letters*. 43:1–8, <http://dx.doi.org/10.1002/2016GL070152>

Schwörer, C., D.M. Fisher, D.G. Gavin, C. Temperli & P.J. Bartlein, 2016, Modeling postglacial vegetation dynamics of temperate forests on the Olympic Peninsula (WA, USA) with special regard to snowpack. *Climatic Change* 137:379–394. <https://doi.org/10.1007/s10584-016-1696-z>

Harrison, S.P., P.J. Bartlein & I.C. Prentice, 2016, What have we learnt from palaeoclimate simulations? *Journal of Quaternary Science* 31:363–385. <https://doi.org/10.1002/jqs.2842>

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. Maezumi, 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. <https://doi.org/10.5194/bg-13-3225-2016>

Marshall, J.A., J.J. Roering, P.J. Bartlein, D.G. Gavin, D.E. Granger, A.W. Rempell, S. Praskievicz, T.C. Hales, 2015, Frost for the trees: Did climate increase erosion in unglaciated landscapes during the Late Pleistocene? *Science Advances*. e1500715, <http://dx.doi.org/10.1126/sciadv.1500715>

Boslough, M., K. Nicoll, T.L. Daulton, A.C. Scott, P. Claeys, J.L. Gill, J.R. Marlon & P.J. Bartlein, 2015, Incomplete Bayesian model rejects contradictory radiocarbon data for being contradictory. *Proceedings of the National Academy of Sciences of the United States of America* 112:E6722-E6722. <https://doi.org/10.1073/pnas.1519917112>

Shafer, S.L., P.J. Bartlein, E.M. Gray & R.T. Peltier, 2015, Projected future vegetation changes for the northwest United States and southwest Canada at a fine spatial resolution using a dynamic global vegetation model. *PLOS ONE* 1-21, <https://doi.org/10.1371/journal.pone.0138759>

Bartlein, P.J., M.E. Edwards, S.W. Hostetler, S.L. Shafer, P.M. Anderson, L.B. Brubaker, and A.V. Lozhkin, 2015, Early-Holocene warming in Beringia and its mediation by sea-level and vegetation changes. *Climate of the Past*, 11:1197-1222. <https://doi.org/10.5194/cp-11-1197-2015>

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. <https://doi.org/10.1038/nclimate2649>

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. <https://doi.org/10.1007/s00382-014-2189-2>

Thompson, R.S., K.H. Anderson, R.T. Peltier, L.E. Strickland, S.L. Shafer, P.J. Bartlein and A.K. McFadden, 2015, Atlas of relations between climatic parameters and distributions of important trees and shrubs in North America—revisions for all taxa from the United States and Canada and new taxa from the western United States. *U.S. Geological Survey Professional Paper 1650-G*. (<https://pubs.usgs.gov/pp/p1650-g/> )

Blarquez, O., Vannière, B., Marlon, J.R., Danianu, A.-L., Power, M.J., Brewer, S., Bartlein, P.J., 2014. paleofire: An R package to analyse sedimentary charcoal records from the Global Charcoal Database to reconstruct past biomass burning. *Computers & Geosciences*. 72, 255-261. <https://doi.org/10.1016/j.cageo.2014.07.020>

Gavin, D.G., Fitzpatrick, M.C., Gugger, P.F., Heath, K.D., Rodriguez-Sanchez, F., Dobrowski, S.Z., Hampe, A., Hu, F.S., Ashcroft, M.B., Bartlein, P.J., Blois, J.L., Carstens, B.C., Davis, E.B., de Lafontaine, G., Edwards, M.E., Fernandez, M., Henne, P.D., Herring, E.M., Holden, Z.A., Kong, W.-s., Liu, J., Magri, D., Matzke, N.J., McGlone, M.S., Salter, F., Stigall, A.L., Tsai, Y.-H.E., Williams, J.W., 2014. Climate refugia: joint inference from fossil records, species distribution models and phylogeography. *New Phytologist* 204, 37-54. <https://doi.org/10.1111/nph.12929>

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. <https://doi.org/10.1007/s00382-013-1922-6>

Praskievicz, S., Bartlein, P., 2014. Hydrologic modeling using elevationally adjusted NARR and NARCCAP regional climate-model simulations: Tucannon River, Washington. *Journal of Hydrology* 517, 803-814. <https://doi.org/10.1016/j.jhydrol.2014.06.017>

Bartlein, P.J., S.W. Hostetler, J.R. Alder, 2014, Paleoclimate, Ch. 1 in G. Ohring (ed.), *Climate Change in North America*, Regional Climate Studies, Springer. [https://doi.org/10.1007/978-3-319-03768-4\\_1](https://doi.org/10.1007/978-3-319-03768-4_1)

Schmidt, G.A., J.D. Annan, P.J. Bartlein, B.I. Cook, E. Guilyardi, J.C. Hargreaves, S.P. Harrison, M. Kageyama, A.N. LeGrande, B. Konecky, S. Lovejoy, M.E. Mann, V. Masson-Delmotte, C. Risi, D. Thompson, A. Timmermann, L.B. Tremblay & P. Yiou, 2014, Using palaeo-climate comparisons to constrain future projections in CMIP5. *Clim. Past* 10:221-250. <https://doi.org/10.5194/cp-10-221-2014>

Foley, A.M., D. Dalmonech, A.D. Friend, F. Aires, A.T. Archibald, P. Bartlein, L. Bopp, J. Chappellaz, P. Cox, N.R. Edwards, G. Feulner, P. Friedlingstein, S.P. Harrison, P.O. Hopcroft, C.D. Jones, J. Kolassa, J.G. Levine, I.C. Prentice, J. Pyle, N.V. Riveiros, E.W. Wolff & S. Zaehle, 2013, Evaluation of biospheric components in Earth system models using modern and palaeo-observations: the state-of-the-art. *Biogeosciences* 10:8305-8328. <https://doi.org/10.5194/bg-10-8305-2013>

Li, G., S.P. Harrison, P.J. Bartlein, K. Izumi & I.C. Prentice, 2013, Precipitation scaling with temperature in warm and cold climates: an analysis of CMIP5 simulations. *Geophysical Research Letters*: DOI: 10.1002/grl.50730.

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

Power, M.J., F.E. Mayle, P.J. Bartlein, J.R. Marlon, R.S. Anderson, H. Behling, K.J. Brown, C. Carcaillet, D. Colombaroli, D.G. Gavin, D.J. Hallett, S.P. Horn, L.M. Kennedy, C.S. Lane, C.J. Long, P.I. Moreno, C. Paitre, G. Robinson, Z. Taylor & M.K. Walsh, 2013, Climatic control of the biomass-burning decline in the Americas after AD 1500. *Holocene* 23:3-13.

Kennett, D.J., S.F.M. Breitenbach, V.V. Aquino, Y. Asmerom, J. Awe, J.U.L. Baldini, P. Bartlein, B.J. Culleton, C. Ebert, C. Jazwa, M.J. Macri, N. Marwan, V. Polyak, K.M. Prufer, H.E. Ridley, H. Sodemann, B. Winterhalder & G.H. Haug, 2012, Development and Disintegration of Maya Political Systems in Response to Climate Change. *Science* 338:788-791.

Daniau, A.-L., P.J. Bartlein, S.P. Harrison and 57 others, 2012, Predictability of biomass burning in response to climate changes, *Global Biogeochemical Cycles* 26, GB4007, doi:10.1029/2011GB004249.

Gill, J.L., J.L. Blois, S. Goring, J.R. Marlon, P.J. Bartlein, K. Nicoll, A.C. Scott & C. Whitlock, 2012, Paleoeological changes at Lake Cuitzeo were not consistent with an extraterrestrial impact. *Proceedings of the National Academy of Sciences of the United States of America* 109:E2243-E2243.

Tang, G. & P.J. Bartlein, 2012, Modifying a dynamic global vegetation model for simulating large spatial scale land surface water balances. *Hydrology and Earth System Sciences* 16:2547-2565.

Thompson, R.S., K.H. Anderson, R.T. Pelltier, L.E. Strickland, Sarah L. Shafer, and P.J. Bartlein, 2012, Quantitative estimation of climatic parameters from vegetation data in North America by the mutual climatic range technique, *Quaternary Science Reviews* 51:18-39.

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.

Shafer, S.L., Atkins, J., Bancroft, B.A., Bartlein, P.J., Lawler, J.J., Smith, B., and Wilsey, C.B., 2012, Projected climate and vegetation changes and potential biotic effects for Fort Benning, Georgia; Fort Hood, Texas; and Fort Irwin, California: *U.S. Geological Survey Scientific Investigations Report 2011–5099*, 46 p.

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.

Schmittner, A., N.M. Urban, J.D. Shakun, N.M. Mahowald, P.U. Clark, P.J. Bartlein, A.C. Mix & A. Rosell-Mele, 2011, Climate Sensitivity Estimated from Temperature Reconstructions of the Last Glacial Maximum. *Science*

334:1385-1388. see also Schmittner, A., N.M. Urban, J.D. Shakun, N.M. Mahowald, P.U. Clark, P.J. Bartlein, A.C. Mix & A. Rosell-Melé, 2012, Response to Comment on "Climate Sensitivity Estimated from Temperature Reconstructions of the Last Glacial Maximum". *Science* 337:1294.

Mooney, S., S.P. Harrison, P.J. Bartlein & J. Stevenson. 2012. The prehistory of fire in Australia. In *Flammable Australia, fire regimes, biodiversity and ecosystems in a changing world* eds. R. A. Bradstock, A. M. Gill & R. J. Williams. Canberra: CSIRO Publishing. pp.3-26.

Matthews, J.A., P.J. Bartlein, K.R. Briffa, A.G. Dawson, A. DeVernal, T. Denham, S.C. Fritz & F. Oldfield. 2012. Background to the science of environmental change. In *The SAGE Handbook of Environmental Change*, eds. J. A. Matthews, P. J. Bartlein, K. R. Briffa, A. G. Dawson, A. DeVernal, T. Denham, S. C. Fritz & F. Oldfield. London, UK: SAGE Publications.

McGlone, M., J. Wood & P.J. Bartlein. 2012. Environmental change in the temperate forested regions. In *The SAGE Handbook of Environmental Change*, eds. J. A. Matthews, P. J. Bartlein, K. R. Briffa, A. G. Dawson, A. DeVernal, T. Denham, S. C. Fritz & F. Oldfield. London, UK: SAGE Publications.

Bartlein, P.J., S.P. Harrison, S. Brewer, S. Connor, B.A.S. Davis, K. Gajewski, J. Guiot, T.I. Harrison-Prentice, A. Henderson, O. Peyron, I.C. Prentice, M. Scholze, H. Seppa, B. Shuman, S. Sugita, R.S. Thompson, A.E. Viau, J. Williams & H. Wu, 2011, Pollen-based continental climate reconstructions at 6 and 21 ka: a global synthesis. *Climate Dynamics* 37:775-802. DOI: 10.1007/s00382-010-0904-1

Harrison, S.P. and P.J. Bartlein, 2012, Records from the past, lessons for the future: what the palaeoecological record implies about mechanisms of global change. in A. Henderson-Sellers and K.J. McGuffie eds., *The Future of the World's Climate*. Elsevier, DOI 10.1016/B978-0-12-386917-3.00014-2

Power, M.J., C. Whitlock and P.J. Bartlein, 2011, Postglacial fire, vegetation, and climate history across an elevational gradient in the Northern Rocky Mountains, USA and Canada. *Quaternary Science Reviews* 30:2520-2533.

Prentice, I.C., D.I. Kelly, P.N. Foster, P. Friedlingstein, S.P. Harrison and P.J. Bartlein, 2011, Modeling fire and the terrestrial carbon balance, *Global Biogeochemical Cycles*. 25:GB3005

Vanniere, B., M.J. Power, N. Roberts, W. Tinner, J. Carrion, M. Magny, P. Bartlein, D. Colombaroli, A.L. Daniau, W. Finsinger, G. Gil-Romera, P. Kaltenrieder, R. Pini, L. Sadori, R. Turner, V. Valsecchi & E. Vescovi, 2011, Circum-Mediterranean fire activity and climate changes during the mid-Holocene environmental transition (8500-2500 cal. BP). *The Holocene* 21:53-73.

McMahon, S.M., S.P. Harrison, W.S. Armbruster, P.J. Bartlein, C.M. Beale, M.E. Edwards, J. Kattge, G. Midgley, X. Morin & I.C. Prentice, 2011, Improving assessment and modelling of climate change impacts on global terrestrial biodiversity. *Trends in Ecology & Evolution* 26:249-259.

Prentice, I.C., S.P. Harrison and P.J. Bartlein, 2011, Tropical forests, ice ages and the carbon cycle, *New Phytologist* 189:988-998.

Mooney, S.D. S.P. Harrison, P.J. Bartlein, A.-L. Daniau, J. Stevenson, K. Brownlie, S. Buckman, M. Cupper, J. Luly, M. Black, E. Colhoun, D. D'Costa, J. Dodson, S. Haberle, G.S. Hope, P. Kershaw, C. Kenyon, M. McKenzie and N. Williams, 2011, Late-Quaternary fire regimes of Australasia. *Quaternary Science Reviews* 30:28-46.

Long, C.J., M.J. Power and P.J. Bartlein, 2011, The effects of fire and tephra deposition on forest vegetation in the Central Cascades, Oregon *Quaternary Research* 75:151-158.

Harrison, S.P. J.R. Marlon and P.J. Bartlein, 2010, Fire in the Earth System, Ch. 3 in J. Dodson, *Changing Climates, Earth Systems and Society*, Springer, ISBN: 978-90-481-8715-7

Marlon, J.R. and P.J. Bartlein, 2010, Toward multiple working hypotheses. Invited comment in Holliday, V.T. & D.J. Meltzer, The 12.9-ka ET Impact Hypothesis and North American Paleoindians. *Current Anthropology* 51:593-594.



Arneth, A., S.P. Harrison, S. Zaehle, K. Tsigaridis, S. Menon, P.J. Bartlein, J. Feichter, A. Korhola, M. Kulmala, D. O'Donnell, G. Schurgers, S. Sorvari & T. Vesala, 2010, Terrestrial biogeochemical feedbacks in the climate system. *Nature Geoscience* 3:525-532.

Higuera, P.E., D.G. Gavin, P.J. Bartlein and D.J. Hallett, 2010, Peak detection in sediment-charcoal records: impacts of alternative data analytical methods on fire-history interpretations. *International Journal of Wildland Fire* 19:996-1014.

Walsh, M.K., C. Whitlock and P.J. Bartlein, 2010, 1200 years of fire and vegetation history in the Willamette Valley, Oregon and Washington, reconstructed using high-resolution macroscopic charcoal and pollen analysis *Palaeogeography, Palaeoclimatology, Palaeoecology* 297:273-289.

Daniau A.L., Harrison S.P., Bartlein P.J., 2010, Fire regimes during the Last Glacial. *Quaternary Science Reviews* 29:918-2930, DOI: DOI: 10.1016/j.quascirev.2009.11.008.

Power M.J., Marlon J.R., Bartlein P.J., Harrison S.P., 2010, Fire history and the Global Charcoal Database: A new tool for hypothesis testing and data exploration. *Palaeogeography, Palaeoclimatology, Palaeoecology* 291:52-59 DOI: DOI: 10.1016/j.palaeo.2009.09.014.

Walsh M.K., Pearl C.A., Whitlock C., Bartlein P.J., Worona M.A., 2010, An 11 000-year-long record of fire and vegetation history at Beaver Lake, Oregon, central Willamette Valley. *Quaternary Science Reviews* 29:1093-1106. DOI: DOI: 10.1016/j.quascirev.2010.02.011.

Shinker J.J., Bartlein P.J., 2010, Spatial variations of effective moisture in the western United States. *Geophysical Research Letters* 37. DOI: L0270110.1029/2009gl041387.

Williams J.W., Shuman B., Bartlein P.J., Diffenbaugh N.S., Webb T., 2010, Rapid, time-transgressive, and variable responses to early Holocene midcontinental drying in North America. *Geology* 38:135-138. DOI: 10.1130/g30413.1.

Shinker, J.J. and P.J. Bartlein, 2009, Visualizing the large-scale patterns of ENSO-related climate anomalies in North America, *Earth Interactions* 13:3-1 - 3-50

Tang, G., S.L. Shafer, P.J. Bartlein, and J.O. Holman, 2009, Effects of experimental protocol on global vegetation model accuracy: a comparison of simulated and observed vegetation patterns for Asia. *Ecological Modelling*. 220:1481-1491, doi:10.1016/j.ecolmodel.2009.03.021

Williams, J.W., B. Shuman, P.J. Bartlein, 2009, Abrupt responses of the prairie-forest ecotone to early Holocene aridity in mid-continental North America. *Global and Planetary Change* 66:195-207 doi: 10.1016/j.gloplacha.2008.10.012

Lawler, J. J., S. L. Shafer, D. White, P. Kareiva, E.P. Maurer, A.R. Blaustein, and P.J. Bartlein, 2009, Projected climate-induced faunal change in the Western Hemisphere. *Ecology* 90, 588-597.

Marlon, J.R., P.J. Bartlein, M.K. Walsh, S. P. Harrison, K. J. Brown, M. E. Edwards, P. E. Higuera, M. J. Power, R. S. Anderson, C. Briles, A. Brunelle, C. Carcaillet, M. Daniels, F. S. Hu, M. Lavoie, C. Long, T. Minckley, P. J. H. Richard, A.C. Scott, D. S. Shafer, W. Tinner, C. E. Jr. Umbanhowar and C. Whitlock, 2009, Wildfire responses to abrupt climate change in North America. *Proceedings of the National Academy of Sciences*. 106:2519-2524 doi:10.1073/pnas.0808212106

Cook, E.R., P.J. Bartlein, N.S. Diffenbaugh, R. Seager, B.N. Shuman, R.S. Webb and J.W. Williams, 2008, Hydrological variability and change, in P.U. Clark, A.J. Weaver, E.J. Brook, E.R. Cook and T. Delworth, eds., *Abrupt Climate Change*, U.S. Climate Change Research Program, Synthesis and Assessment Product 3.4. pp.

Marlon, J.R., P.J. Bartlein, C. Carcaillet, D.G. Gavin, S.P. Harrison, P.E. Higuera, F. Joos, M.J. Power and I.C. Prentice, 2008, Climate and human influences on global biomass burning over the past two millennia. *Nature Geoscience* 1:697-702.

Minckley, T. A., Bartlein, P. J., Whitlock, C., Shuman, B. N., Williams, J. W., and Davis, O. K., 2008, Associations among modern pollen, vegetation, and climate in western North America. *Quaternary Science Reviews* 27, 1962-1991.

Tang, G. P., and Bartlein, P. J., 2008, Simulating the climatic effects on vegetation: approaches, issues and challenges. *Progress in Physical Geography* 32, 543-556.

Walsh, M.K., C. Whitlock and P.J. Bartlein, 2008, A 14,300-year-long record of fire-vegetation-climate linkages at Battle Ground Lake, southwestern Washington. *Quaternary Research* 70:251-264.

Briles, C.E., C. Whitlock, P.J. Bartlein, and P. Higuera, 2008, Regional and local controls on postglacial vegetation and fire in the Siskiyou Mountains, northern California, USA. *Palaeogeography, Palaeoclimatology, Palaeoecology* 265:1959-1969.

Thompson, R.S., K.H. Anderson, and P.J. Bartlein, 2008, An assessment of the ability of vegetation analogs to estimate present-day bioclimates in North America: implications for paleoclimatic reconstructions, *Quaternary Science Reviews* 27:1234-1254.

Bartlein, P.J., S.W. Hostetler, S.L. Shafer, J.O. Holman, and A.M. Solomon, 2008, Temporal and spatial structure in a daily wildfire-start data set from the western United States (1986-1996). *International Journal of Wildland Fire* 17:8-17.

Whitlock, C., P. Bartlein, C. Briles, A. Brunelle, C.J. Long, and J. Marlon, 2008, Long-term relations between fire, fuel, and climate in the northwestern U.S., *International Journal of Wildland Fire* 17:72-83.

Power M. J., J. Marlon, N. Ortiz, P.J. Bartlein, S.P. Harrison, F.E. Mayle, A. Ballouche, R.H.W. Bradshaw, C. Carcaillet, C. Cordova, S. Mooney, P.I. Moreno, I.C. Prentice, K. Thonicke, W. Tinner, C. Whitlock, Y. Zhang, Y. Zhao, A. A. Ali, R. S. Anderson, R. Beer, H. Behling, C. Briles, K. J. Brown, A. Brunelle, M. Bush, P. Camill, G.Q. Chu, J. Clark, D. Colombaroli, S. Connor, A.-L. Daniau, M. Daniels, J. Dodson, E. Doughty, M. E. Edwards, W. Finsinger, D. Foster, J. Frechette, M.-J. Gaillard, D.G. Gavin, E. Gobet, S. Haberle, D.J. Hallett, P. Higuera, G. Hope, S. Horn, J. Inoue, P. Kaltenrieder, L. Kennedy, Z.C. Kong, C. Larsen, C.J. Long, J. Lynch, E.A. Lynch, M. McGlone, S. Meeks, S. Mensing, G. Meyer, T. Minckley, J. Mohr, D.M. Nelson, J. New, R. Newnham, R. Noti, W. Oswald, J. Pierce, P. J.H. Richard, C. Rowe, M.F. Sanchez Goñi, B.N. Shuman, H. Takahara, J. Toney, C. Turney, D.H. Urrego-Sanchez, C. Umbanhowar, M. Vandergoes, B. Vanniere, E. Vescovi, M. Walsh, X. Wang, N. Williams, J. Wilmschurst and J. H. Zhang, 2008, Changes in fire regimes since the Last Glacial Maximum: an assessment based on a global synthesis and analysis of charcoal data, *Climate Dynamics*, DOI 10.1007/s00382-007-0334-x

Gavin, D.G., D.J. Hallett, F.S. Hu, K.P. Lertzman, S.J. Prichard, K.J. Brown, J.A. Lynch, P.J. Bartlein and D.L. Peterson, 2007, Forest fire and climate change in western North America: insights from sediment charcoal records, *Frontiers in Ecology and the Environment* 5(12):499-506.

Long, C. J., Whitlock, C., and Bartlein, P. J. 2007. Holocene vegetation and fire history of the Coast Range, western Oregon, USA. *Holocene* 17, 917-926.

Minckley, T. A., Whitlock, C., and Bartlein, P. J. 2007). Vegetation, fire, and climate history of the northwestern Great Basin during the last 14,000 years. *Quaternary Science Reviews* 26, 2167-2184.

Whitlock, C., P.I. Moreno, and P.J. Bartlein, 2007, Holocene fire patterns in southern South America: present-day analogues for past periods of high fire activity. *Quaternary Research* 68:28-36.

Shuman, B., P.J. Bartlein, and T Webb III, 2007, Response to "Comments on: The magnitude of millennial- and orbital-scale climatic change in eastern North America during the Late-Quaternary" by Shuman et al., *Quaternary Science Reviews* 26:268-273.

Bartlein, P.J., 2006, Time scales of climate change. in Elias, S.A. ed., *Encyclopedia of Quaternary Science*, Elsevier pp. 1873-1883.

Williams, J.W., Shuman, B., Bartlein, P.J., Whitmore, J., Gajewski, K. Sawada, M., Minckley, T., Shafer, S., Viau, A.E., Webb, T. III, Anderson, P. Brubaker, L., Whitlock, C. Davis, O., 2006, An Atlas of Pollen-Vegetation-Climate Relationships for the United States and Canada, American Association of Stratigraphic Palynologists *Contributions Series* 43, 300p.

Diffenbaugh, N.S., M. Ashfaq, B. Shuman, J.W. Williams, and P.J. Bartlein, 2006, Summer aridity in the United States: response to mid-Holocene changes in insolation and sea surface temperature. *Geophysical Research Letters* 33, L22712, doi:10.1029/2006GL028012, 2006

Marlon, J., P.J. Bartlein, and C. Whitlock, 2006, Fire-fuel-climate linkages in the northwestern U.S. during the Holocene. *The Holocene* 16:1065-1077

Whitlock, C., M.M. Bianchi, P.J. Bartlein, V. Markgraf, J. Marlon, M. Walsh and N. McCoy, 2006, Postglacial vegetation, climate, and fire history along the east side of the Andes (lat 41–42.5°S), Argentina, *Quaternary Research* 66:187-201.

Shinker, J.J., P.J. Bartlein, and B. Shuman, 2006, Synoptic and dynamic climate controls of North American mid-continental aridity. *Quaternary Science Reviews* 25:1401-1417.

Power, M.J., Whitlock, C., Bartlein, P.J., and L. Stevens, 2006, Fire and vegetation history during the last 3800 years in northwestern Montana. *Geomorphology* 75:420-436

Shuman, B., P.J. Bartlein and T. Webb, III, 2005, The magnitudes of millennial- and orbital-scale climatic change in eastern North America. *Quaternary Science Reviews* 24:2194-2206.

Brunelle, A., C. Whitlock, P. Bartlein, and K. Kipfmüller, 2005, Holocene fire and vegetation along environmental gradients in the Northern Rocky Mountains. *Quaternary Science Reviews* 24:2281-2300.

Briles, C.E., C. Whitlock, and P.J. Bartlein, 2005, Postglacial vegetation, fire, and climate history of the Siskiyou Mountains, Oregon. *Quaternary Research* 64:44-56.

Whitmore, J., K. Gajewski, M. Sawada, J.W. Williams, B. Shuman, P.J. Bartlein, T. Minckley, A.E. Viau, T. Webb III, P. Anderson, L. Brubaker, 2005, Modern Pollen Data from North America and Greenland for Multi-scale Paleoenvironmental Applications. *Quaternary Science Reviews* 24:1828-1848.

Light, A. and P.J. Bartlein, 2004, Reply to a comment on “Color schemes for improved data graphics.” *EOS, Transactions of the American Geophysical Union* 86(20):196.

Overpeck, J., J. Cole, and P. Bartlein, 2005, A “paleoperspective” on climate variability and change, in T.E. Lovejoy and L. Hannah, Eds., *Climate Change and Biodiversity*, Yale Univ. Press, pp 91-108.

Shafer, S.L., P.J. Bartlein and C. Whitlock, 2005, Understanding the spatial heterogeneity of global environmental change in mountain regions, in U. Huber, M. Reasoner and H. Bugmann (eds.) *Global Change and Mountain Regions*. Springer, p 21-30.

Whitlock, C. C.N. Skinner, P.J. Bartlein, T. Minckley, and J.A. Mohr, 2004, Comparison of charcoal and tree-ring records of recent fires in the eastern Klamath Mountains, California, U.S.A. *Canadian Journal of Forest Research* 34:2110-2121.

Light, A. and P.J. Bartlein, 2004, The end of the rainbow? Color schemes for improved data graphics. *EOS, Transactions of the American Geophysical Union* 85(40):385,391.

Thompson, R.S., L.E. Strickland, R.T. Pelltier, S.L. Shafer, K.H. Anderson, P.J. Bartlein and M.W. Kerwin, 2004, Topographic, bioclimatic, and vegetation characteristics of three ecoregion classification systems in North America: comparisons along continentwide transects. *Environmental Management* 33(3):1-24.

Barboni, D., Harrison, S.P., Bartlein, P.J., Jalut, G., New, M., Prentice, I.C., Sanchez-Goni, M.F. and Stevenson, A.C., 2004. Relationships between plant traits and climate in the Mediterranean region. *Journal of Vegetation Science* 15: 535-546.

Millspaugh, S.H., C. Whitlock and P.J. Bartlein, 2004, Postglacial fire, vegetation, and climate history of the Yellowstone-Lamar and Central Plateau Provinces, Yellowstone National Park. Ch. 2 in L.L. Wallace, ed., *After the Fires, The Ecology of Change in Yellowstone National Park*. Yale Univ. Press, pp. 10-28.



Huntley, B., R.E. Green, Y.C. Collingham, J.K. Hill, S.G. Willis, P.J. Bartlein, W. Cramer, W.J.M. Hagemeijer and C.J. Thomas, 2004, The performance of models relating species geographical distributions to climate is independent of trophic level. *Ecology Letters* 7:417-426.

Bonfils, C., N. de Noblet-Ducoudré, J. Guiot, P. Bartlein and PMIP participants, 2004, Some mechanisms of mid-Holocene climate change in Europe, inferred from comparing PMIP models to data. *Climate Dynamics* 23:79-98.

Williams, J.W., B.N. Shuman, T. Webb III, P.J. Bartlein, P.L. Leduc, 2004, Late Quaternary vegetation dynamics in North America: scaling from taxa to biomes. *Ecological Monographs* 74(2):309-334.

Kaufman, D.S., T.A. Ager, N.J. Anderson, P.M. Anderson, J.T. Andrews, P.J. Bartlein, L.B. Brubaker, L.L. Coats, L.C. Cwynar, M.L. Duvall, A.S. Dyke, M.E. Edwards, W.R. Eisner, K. Gajewski, A., Geirsdottir, F.S. Hu, A.E. Jennings, M.R. Kaplan, M.W. Kerwin, A.V. Lozhkin, G.M., MacDonald, G.H. Miller, C.J. Mock, W.W. Oswald, B.L. Otto-Bliesner, D.F. Prorincho, K. Rühland, J.P. Smol, E.J. Steig, and B.B. Wolfe, 2004, Holocene Thermal Maximum in the Western Arctic (0 - 180° W). *Quaternary Science Reviews* 23:529-560.

Bartlein, P.J., and S.W. Hostetler, 2004, Modeling paleoclimates, Ch. 27 in A. Gillespie, S.C. Porter, B. Atwater (eds.), *The Quaternary Period in the United States*. (2003 INQUA volume) Elsevier, p. 563-582.

Whitlock, C. and P.J. Bartlein, 2004, Holocene fire activity as a record of past environmental change. Ch. 22 in A. Gillespie, S.C. Porter, B. Atwater (eds.). *The Quaternary Period in the United States*. (2003 INQUA volume) Elsevier, p. 479-490.

Minckley, T.A., P.J. Bartlein, and J.J. Shinker, 2004. Paleoeological response to climate change in the Great Basin since the last glacial maximum. In D.L. Jenkins, T.J. Connolly, and C.M. Aikens (Eds.) Early and middle Holocene Archaeology of the Northern Great Basin, pp. 21-30. University of Oregon Anthropological Papers 62. Eugene.

Overpeck, J., C. Whitlock, B. Huntley, P.J. Bartlein, Y.C. Collingham, E.C. Grimm, T. Webb III, J.W. Williams and S.G. Willis, 2003, Terrestrial biosphere dynamics in the climate system: past and future. in K.D. Alverson, R.S. Bradley and T.F. Pederson (eds.), *Paleoclimate, Global Change and the Future*, Springer, p. 81-103.

Bigelow, N.H., L.B. Brubaker, M.E. Edwards, S.P. Harrison, I.C. Prentice, P.M. Anderson, A.A. Andreev, P.J. Bartlein, T.R. Christensen, W. Cramer, J.O. Kaplan, A.V. Lozhkin, N.V. Matveyeva, D.F. Murry, A.D. McGuire, V.Y. Razzhivin, J.C. Ritchie, B. Smith, D.A. Walker, K. Gajewski, V. Wolf, B. Holmqvist, Y. Igarashi, K. Kremenetskii, A. Paus, M.F.J. Pisaric and V. S. Volkova, 2003, Climate change and Arctic ecosystems I. Vegetation changes north of 55°N between the last glacial maximum, mid-Holocene and present, *J. Geophysical Research* 108(19): 11-1 to 11-25, doi:10.1029/2002JD002558, 2003

Kaplan, J.O., N.H. Bigelow, I.C. Prentice, S.P. Harrison, P.J. Bartlein, T.R. Christensen, W. Cramer, N.V. Matveyeva, A.D. McGuire, D.F. Murray, V.Y. Razzhivin, B. Smith, D.A. Walker, P.M. Anderson, A.A. Andreev, L.B. Brubaker, M.E. Edwards, A.V. Lozhkin, J.C. Ritchie, 2003, Climate change and Arctic ecosystems II. Modeling, paleodata-model comparisons, and future projections, *J. Geophysical Research* 108(19): 12-1 to 12-17, doi:10.1029/2002JD002559, 2003

Bartlein, P.J., S.W. Hostetler, S.L. Shafer, J.O. Holman and A.M. Solomon (2003). The seasonal cycle of wildfire and climate in the western United States, 5th Symposium on Fire and Forest Meteorology. American Meteorological Society, pp. P3.9-1 - P3.9-6.

Hostetler, S.W., P.J. Bartlein, J.O. Holman, S.L. Shafer and A.M. Solomon (2003). Using a regional climate model to diagnose climatological and meteorological controls of wildfire in the western United States, 5th Symposium on Fire and Forest Meteorology. American Meteorological Society, pp. P1.3-1 - P1.3-5.

Whitlock, C., P.J. Bartlein, J. Marlon, A. Brunelle and C. Long (2003). Holocene fire reconstructions from the northwestern U.S.: an examination at multiple time scales, 5th Symposium on Fire and Forest Meteorology. American Meteorological Society, pp. 4C.1-1 - 4C.1-5.

Lynch, A.H., A.R. Rivers and P.J. Bartlein, 2003, An assessment of the influence of land cover uncertainties on the simulation of global climate in the early Holocene. *Climate Dynamics* 21:243-256.

Diffenbaugh, N.S., L.C. Sloan, M.A. Snyder, J.L. Bell, J. Kaplan, S.L. Shafer and P.J. Bartlein, 2003, Vegetation sensitivity to global anthropogenic carbon dioxide emissions in a topographically complex region. *Global Biogeochemical Cycles* 17(2) 1067, doi:10.1029/2002GB001974, 2003

Harrison, S. P., Kutzbach, J. E., Liu, Z., Bartlein, P. J., Otto-Bliesner, B., Muhs, D., Prentice, I. C., and Thompson, R. S., 2003, Mid-Holocene climates of the Americas: A dynamical response to changed seasonality. *Climate Dynamics* 20:663-688.

Whitlock, C., P. Bartlein and T. Swetnam, 2002, Fire-climate linkages in the mid-latitude Americas. *PAGES News* 10(2):20. Supplemental information at [www.pages.unibe.ch/shhighlight/archive02/july3\\_02.html](http://www.pages.unibe.ch/shhighlight/archive02/july3_02.html)

Shuman, B. N., Bartlein, P. J., Logar, N., Newby, P., and Webb, T., III, 2002, Parallel vegetation and climate responses to the early-Holocene collapse of the Laurentide Ice Sheet. *Quaternary Science Reviews* 21: 1793–1805.

Shuman, B. N., Webb, T., III, Bartlein, P. J., and Williams, J. W., 2002, The Anatomy of a climatic oscillation: vegetation change in eastern North America during the Younger Dryas Chronozone. *Quaternary Science Reviews* 21:1777-1791.

Hansen, A.J., R.P. Neilson, V.H. Dale, C.H. Flather, L.R. Iverson, D.J. Currie, S. Shafer, R. Cook and P.J. Bartlein, 2001, Global change in forests: response of species, communities and biomes. *BioScience* 51:765779.

Shafer, S.L., P.J. Bartlein, and R.S. Thompson, 2001, Potential changes in the distributions of Western North America tree and shrub taxa under future climate scenarios. *Ecosystems* 4:200-215.

Edwards, M.E., C.J. Mock, B.P. Finney, V. Barber and P.J. Bartlein, 2001, Potential analogues for paleoclimatic variations in eastern interior Alaska for the past 14,000 years: atmospheric-circulation controls of regional temperature and moisture responses, *Quaternary Science Reviews*. 20:189-202

Whitlock, C., P.J. Bartlein, V. Markgraf and A.C. Ashworth, 2001, The mid-latitudes of North and South America during the Last Glacial Maximum and Early Holocene: similar paleoclimatic sequences despite differing large-scale controls. In V. Markgraf ed. *Interhemispheric Climate Linkages: Present and Past Interhemispheric Climate Linkages in the Americas and their Societal Effects*. Academic Press. pp. 391-416.

Thompson, R.S., K.H. Anderson and P.J. Bartlein, 2000, *Atlas of relations between climatic parameters and distributions of important trees and shrubs in North America—introduction and conifers*. U.S. Geological Survey Professional Paper 1650-A, 269 p.

Thompson, R.S., K.H. Anderson and P.J. Bartlein, 2000, *Atlas of relations between climatic parameters and distributions of important trees and shrubs in North America—hardwoods*. U.S. Geological Survey Professional Paper 1650-B, 432 p.

Thompson, R.S., K.H. Anderson, P.J. Bartlein, and S.A. Smith, 2000, *Atlas of relations between climatic parameters and distributions of important trees and shrubs in North America—additional conifers, hardwoods, and monocots*. U.S. Geological Survey Professional Paper 1650-C, 386 p.

de Noblet, N., P. Bartlein and C. Bonfils, and PMIP Participants, 2000, Simulated and observed changes in the extratropics during the mid-Holocene. *Proceedings of the Third Palaeoclimatic Modelling Intercomparison Project Workshop*, World Climate Research Program Report 111. pp. 69-76

Williams, J.W., P.J. Bartlein and T. Webb III, 2000, Data-model comparisons for eastern North America—*inferred biomes and climate values from pollen data*. *Proceedings of the Third Palaeoclimatic Modelling Intercomparison Project Workshop*, World Climate Research Program Report 111. pp. 77-86.

Hostetler, S.W., P.J. Bartlein, P.U. Clark, E.E. Small, and A.M. Solomon, 2000, Simulated influence of Lake Agassiz on the climate of central North America 11,000 years ago. *Nature* 405:334-337.

Williams, J.W., T. Webb III, B.N. Shuman and P.J. Bartlein, 2000, Do low CO<sub>2</sub> concentrations affect pollen-based reconstructions of LGM climates? *Quaternary Research* 53:402-404.

Millspaugh, S.H., C. Whitlock and P.J. Bartlein, 2000, Variations in fire frequency and climate over the last 17,000 years in Central Yellowstone National Park. *Geology* 28:211-214.

Whitlock, C., A.M. Sarna-Wojcicki, P.J. Bartlein, and R.J. Nickmann, 2000, Environmental history of the southwestern Columbia basin. *Palaeogeography, Palaeoclimatology, Palaeoecology* 155:7-29.

Hostetler, S.W., and P.J. Bartlein, 1999, Response of Regional Climate and Surface Processes in Western North America to a Canonical Heinrich Event. in P.U. Clark, R.S. Webb and L.D. Keigwin, eds., *Mechanisms of Global Climate Change at Millennial Time Scales*, American Geophysical Union, pp. 313-327.

The PALE Beringian Working Group, 1999, Paleoenvironmental atlas of Beringia presented in electronic form. *Quaternary Research* 52:270-271.

Farrera, I., S. P. Harrison, I. C. Prentice, G. Ramstein, J. Guiot, P. J. Bartlein, R. Bonnefille, M. Bush, W. Cramer, U. von Grafenstein, K. Holmgren, H. Hooghiemstra, G. Hope, D. Jolly, S.-E. Lauritzen, Y. Ono, S. Pinot, M. Stute, G. Yu, 1999, Tropical climates at the Last Glacial Maximum: a new synthesis of terrestrial palaeoclimate data. I. Vegetation, lake-levels and geochemistry. *Climate Dynamics* 15:823-856.

Thompson, R.S., K.H. Anderson and P.J. Bartlein, 1999, Quantitative paleoclimatic reconstructions from Late Pleistocene plant macrofossils of the Yucca Mountain region. *U.S. Geological Survey Open-File Report 99-338*, 38 p.

Joussame, S., K.E Taylor, P Braconnot, J.F.B Mitchell, J.E Kutzbach, S.P. Harrison, I.C. Prentice, A.J Broccoli, A. Abe-Ouchi, P.J. Bartlein, C. Bonfils, B. Dong, J. Guiot, K. Herterich, C.D. Hewitt, D. Jolly, J.W Kim, A. Kislov, A. Kitoh, M.F. Loutre, V. Masson, B. McAvaney, N. McFarlane, N. de Noblet, W.R. Peltier, J.Y. Peterschmitt, D. Pollard, D. Rind, J.F. Royer, M.E. Schlesinger, J. Syktus, S. Thompson, 1999 Monsoon changes for 6000 years ago: Results of 18 simulations from the Paleoclimate Modeling Intercomparison Project (PMIP). *Geophysical Research Letters* 26:859-862

Hostetler, S.W., P.U. Clark, P.J. Bartlein, A.C. Mix and N.G. Pisias, 1999, Mechanisms for the global transmission and registration of North Atlantic Heinrich events. *Journal of Geophysical Research* 104(D4): 3947-3953.

Long, C.J., C. Whitlock, P.J. Bartlein and S.H. Millspaugh, 1998, A 9000-year fire history from the Oregon Coast Range, based on a high-resolution charcoal study. *Canadian J. Forest Res.* 28:774-787.

Thompson, R.S., S.W. Hostetler, P.J. Bartlein and K.H. Anderson, 1998, A strategy for assessing potential future changes in climate, hydrology, and vegetation in the Western United States. *U.S. Geological Survey Circular 1153*, 20 p.

Mock, C.J., P.J. Bartlein and P.M. Anderson, 1998, Atmospheric circulation patterns and spatial climatic variations in Beringia. *International Journal of Climatology* 18: 1085-1104

Bartlein, P.J., K.H. Anderson, P.M. Anderson, M.E. Edwards, C.J. Mock, R.S. Thompson, R.S. Webb, T. Webb III, and C. Whitlock, 1998, Paleoclimate simulations for North America over the past 21,000 years: features of the simulated climate and comparisons with paleoenvironmental data. *Quaternary Science Reviews* 17:549-585.

Webb, T. III, K.H. Anderson, P.J. Bartlein and R.S. Webb, 1998, Late Quaternary climate change in eastern North America: a comparison of pollen-derived estimates with climate model results. *Quaternary Science Reviews* 17:587-606.

Bartlein, P.J., L. Bengtsson, S.P. Harrison, S. Hostetler, K. Hsü, B. Qin, and J. Vassilev, 1998, Modelling lake behavior: How can we use mechanistic models to further our understanding of the response of lake to climate change? *Paläoklimaforschung: Bd. 25*, Jena, Stuttgart, pp. 169-177.

Whitlock, C., and P.J. Bartlein, 1997, Vegetation and climate change in northwest America during the past 125 kyr. *Nature* 388:57-61.

Gresswell, R.E., W.J. Liss, G.L. Larson and P.J. Bartlein, 1997, Influence of basin-scale physical variables on life history characteristics of Cutthroat Trout in Yellowstone Lake. *North American J. Fisheries Management* 17:1046-1064.

Bartlein, P.J., C. Whitlock and S.L. Shafer, 1997, Future climate in the Yellowstone National Park region and its potential impact on vegetation. *Conservation Biology* 11:782-792.

Bartlein, P.J., 1997, Past environmental changes: characteristic features of Quaternary climate variations. in B. Huntley, W. Cramer, A.V. Morgan, H.C. Prentice and J.R.M. Allen, eds., *Past and Future Rapid Environmental Changes: The Spatial and Evolutionary Responses of Terrestrial Biota*, Springer-Verlag, Berlin, pp. 11-29.

TEMPO Members, 1996, Potential role of vegetation feedback in the climate sensitivity of high-latitude regions: a case study at 6000 years B.P. *Global Biogeochemical Cycles* 10:727-736.

Mock C.J. and Bartlein P.J., 1995, Spatial variability of Late-Quaternary palaeoclimates in the western United States. *Quaternary Research* 44:425-433

Bartlein, P.J., M.E. Edwards, S.L. Shafer and E.D. Barker, Jr., 1995, Calibration of radiocarbon ages and the interpretation of paleoenvironmental records. *Quaternary Research* 44:417-424.

Clark P.U. and P.J. Bartlein, 1995, Correlation of late Pleistocene glaciation in the western United States with North Atlantic Heinrich events. *Geology* 23:483-486.

Clark, P.U., D.R. MacAyeal, J.T. Andrews and P.J. Bartlein, 1995, Ice sheets play important role in climate change. *Eos* 76:265-267.

Whitlock, C., P.J. Bartlein and K.J. Van Norman, 1995, Stability of Holocene climate regimes in the Yellowstone region. *Quaternary Research*, 43:433-436.

Vassiljev, J., S.P. Harrison, S. Hostetler and P.J. Bartlein, 1994, Simulation of the long-term thermal characteristics of three Estonian lakes, *Journal of Hydrology* 163:107-123.

Anderson, P.M., P.J. Bartlein and L.B. Brubaker, 1994, An early Wisconsin to present history of tundra vegetation in northwestern Alaska (U.S.A.), *Quaternary Research* 41:306-315.

Hostetler, S.W., F. Giorgi, G.T. Bates and P.J. Bartlein, 1994, The role of lake-atmosphere feedbacks in sustaining paleolakes Bonneville and Lahontan 18,000 years ago. *Science* 263:665-668.

Bartlein, P.J., 1994, The forward-modeling approach in paleoclimatic analysis: Middle-Pliocene vegetation distributions in North America, in R.S. Thompson, ed., *Pliocene Terrestrial Environments and Data/Model Comparisons*, U.S. Geological Survey Open-File Report 94-23, Reston, Virginia, U.S. Dept. Interior, U.S. Geological Survey, pp. 73-89.

Hostetler, S. W., Giorgi, F., Bates, G. T., Bartlein, P. J., and Thompson, R. S. 1994, Use of a high-resolution atmospheric model for simulations of paleoclimate, in R.S. Thompson, ed., *Pliocene Terrestrial Environments and Data/Model Comparisons*, U.S. Geological Survey Open-File Report 94-23, Reston, Virginia, U.S. Dept. Interior, U.S. Geological Survey pp. 71-72.

Prentice, I.C., M.T. Sykes, M. Lautenschlager, S.P. Harrison, O. Denissenko and P.J. Bartlein, 1993, Modelling the increase in terrestrial carbon storage after the last glacial maximum, *Global Ecology and Biogeography Letters* 3:67-76.

Wright, H.E. Jr., J.E. Kutzbach, T. Webb III, W.F. Ruddiman, F.A. Street-Perrott and P.J. Bartlein, eds., 1993, *Global Climates Since the Last Glacial Maximum*, Minneapolis, University of Minnesota Press, 569 p.

Webb, T. III, P.J. Bartlein, S.P. Harrison and K.H. Anderson, 1993, Vegetation, lake-levels and climate in Eastern North America, Ch. 17 in *Global Climates Since the Last Glacial Maximum* (H.E. Wright, Jr and others, eds.), Minneapolis, University of Minnesota Press, pp. 415-467.

Thompson, R.S., C. Whitlock, S.P. Harrison, W.G. Spaulding and P.J. Bartlein, 1993, Vegetation, lake-levels and climate in the Western United States, Ch. 18 in *Global Climates Since the Last Glacial Maximum* (H.E. Wright, Jr and others, eds.), Minneapolis, University of Minnesota Press, pp. 468-513.

Webb, T., III, J.E. Kutzbach, W.F. Ruddiman, F.A. Street-Perrott, V. Markgraf, P.J. Bartlein, H.E. Wright, Jr. and W.L. Prell, 1993, Climatic changes during the past 18,000 years: regional syntheses, mechanisms, and causes, Ch. 19 in *Global Climates Since the Last Glacial Maximum* (H.E. Wright, Jr and others, eds.), Minneapolis, University of Minnesota Press, pp. 514-535.

Kutzbach, J.E., P.J. Bartlein, I.C. Prentice, W.F. Ruddiman, F.A. Street-Perrott, T. Webb III and H.E. Wright, Jr., 1993, Epilogue, Ch. 20 in *Global Climates Since the Last Glacial Maximum* (H.E. Wright, Jr. and others, eds.), Minneapolis, University of Minnesota Press, 536-542.

Whitlock, C. and P.J. Bartlein, 1993, Spatial variations of Holocene climatic change in the Northern Rocky Mountain Region, *Quaternary Research* 39:231-238.

Bartlein, P.J. and C. Whitlock, 1993, Paleoclimatic interpretation of the Elk Lake pollen record, in *Elk Lake Minnesota: Evidence for Rapid Climate Change in the North-Central United States*, (J.P. Bradbury and W.E. Dean, eds.), Geological Society of America Special Paper 276, pp. 275-293.

Whitlock, C., P.J. Bartlein and W.A. Watts, 1993, The vegetation history of Elk Lake, in *Elk Lake Minnesota: Evidence for Rapid Climate Change in the North-Central United States*, (J.P. Bradbury and W.E. Dean, eds.), Geological Society of America Special Paper 276, pp. 251-274.

Solomon, A.M. and P.J. Bartlein, 1992, Past and future climate change: response by mixed deciduous-coniferous forest ecosystems in Northern Michigan, *Canadian Journal of Forest Research* 22:1727-1738.

Wright, H.E., Jr. and P.J. Bartlein, 1993, Reflections on COHMAP, *The Holocene* 3:89-92.

Bartlein, P.J., T. Webb III and Steven W. Hostetler, 1992, Climatology, Ch. 5, in *Techniques for Determining the Probabilities of Geological Events and Processes*, (R.L. Hunter and J. Mann, eds.), International Association for Mathematical Geology, Studies in Mathematical Geology, No. 4, Oxford, Oxford University Press, 364 p..

Webb, T., III and P.J. Bartlein, 1992, Global changes during the last 3 million years: climatic controls and biotic responses, *Annual Reviews of Ecology and Systematics* 23:141-173.

Harrison, S.P., I.C. Prentice and P.J. Bartlein, 1992, Influence of insolation and glaciation on atmospheric circulation in the North Atlantic sector: implications of general circulation model experiments for the Late Quaternary climatology of Europe, *Quaternary Science Reviews* 11:283-299.

Harrison, S.P., I.C. Prentice and P.J. Bartlein, 1991, What climate models can tell us about the Holocene palaeoclimates of Europe, in B. Frenzel, ed., *Evaluation of Climate Proxy Data in Relation to the European Holocene*, *Paläoklimaforschung: Bd. 6*, Jena, Stuttgart, pp. 285-299.

Bartlein, P.J., P.M. Anderson, M.E. Edwards and P.F. McDowell, 1991, A framework for interpreting paleoclimatic variations in eastern Beringia, *Quaternary International* 10-12:73-83

Prentice, I.C., P.J. Bartlein and T. Webb III, 1991, Vegetation and climate change in eastern North America since the last glacial maximum. *Ecology* 72:2038-2056.

Anderson, P.M., P.J. Bartlein, L.B. Brubaker, K. Gajewski and J.C. Ritchie, 1991, Vegetation-pollen-climate relationships for the Arcto-Boreal region of North America and Greenland, *J. Biogeography* 18:565-582.

Overpeck, J.T., P.J. Bartlein and T. Webb III, 1991, Potential magnitude of future vegetation change in Eastern North America: comparisons with the past, *Science* 254:692-695.

McDowell, P.F., T. Webb III and P.J. Bartlein, 1991, Long-term environmental change, in *Earth as Transformed by Human Action* (B.L. Turner II and others, eds.), Cambridge University Press.

Anderson, D., J. Andrews, A. Arquit, P. Bartlein, J.-C. Duplessy, S. Harrison, B. Huntley, L. Keigwin, J. Kutzbach, C. Lorius, S. Manabe, V. Markgraf, P. McDowell, M. McGlone, H. Oeschger, D. Oppo, W. Ruddiman, U. Seigenthaler and L. Thompson, 1991, Major perturbations of the hydrosphere-atmosphere-biosphere system, in *Global Changes of the Past* (R.S. Bradley, ed.), Boulder, University Corporation for Atmospheric Research, pp. 43-59.

Hostetler, S.W. and P.J. Bartlein, 1990, Simulation of lake evaporation using an energy balance-eddy diffusion model of lake temperature and hydroclimate: application to modelling lake-level variations at Harney-Malheur Lake, Oregon, *Water Resources Research* 26:2603-2612.

Anderson, P.M., P.J. Bartlein, L.B. Brubaker, K. Gajewski and J.C. Ritchie, 1989, Modern analogues of Late-Quaternary pollen spectra from the western interior of North America, *J. Biogeography* 16:573-596.

Huntley, B., P.J. Bartlein and I.C. Prentice, 1989, Climatic control of the distribution and abundance of beech (*Fagus*) in Europe and North America, *J. Biogeography* 16:551-560.

Bartlein, P.J. and I.C. Prentice, 1989, Orbital variations, climate and paleoecology, *Trends in Ecology and Evolution* 4:195-199.

COHMAP Members, 1988, Climatic changes of the last 18,000 years: observations and model simulations, *Science* 241:1043-1052.

Overpeck, J.T. and P.J. Bartlein, 1988, Assessing the response of vegetation to future climate change: ecological response surfaces and paleoecological model validation, in *The Potential Effects of Global Climate Change on the United States* (J.B. Smith and D.A. Tirpak, eds.), Office of Policy, Planning, and Evaluation, U.S. Environmental Protection Agency, Appendix D, pp. 1-1 - 1-32.

Webb, T. III and P.J. Bartlein, 1988, Late Quaternary climatic change in eastern North America: the role of modeling experiments and empirical studies, in *Late Pleistocene and Early Holocene Paleoecology and Archaeology of the Eastern Great Lakes Region* (Laub, R.S., N.G. Miller and D.W. Steadman, eds.), Bulletin of the Buffalo Society of Natural Sciences 33:3-13.

Bartlein, P.J., 1988, Late-Tertiary and Quaternary climatic changes, in *Vegetation History*, (B. Huntley and T. Webb III, eds.), Handbook of Vegetation Science, v. 7: Amsterdam, Kluwer Academic Publishers, pp. 113-152.

Webb, T. III, P.J. Bartlein and J.E. Kutzbach, 1987, Climatic change in eastern North America during the past 18,000 years; Comparisons of pollen data with model results, in *North America and Adjacent Oceans during the Last Deglaciation*, (W.F. Ruddiman and H.E. Wright, Jr., eds.), Geology of North America v. K-3: Boulder, Geological Society of America, pp. 447-462.

Barnosky, C.W., P.M. Anderson and P.J. Bartlein, 1987, The northwestern U.S. during deglaciation; Vegetational history and paleoclimatic implications, in *North America and Adjacent Oceans during the Last Deglaciation*, (W.F. Ruddiman and H.E. Wright, Jr., eds.), Geology of North America v. K-3: Boulder, Geological Society of America, pp. 289-321.

Bartlein, P.J., I.C. Prentice, and T. Webb III, 1986, Climatic response surfaces from pollen data for some eastern North American taxa, *J. Biogeography*, 13:35-57.

Bartlein, P.J. and T. Webb III, 1985, Mean July temperature at 6000 yr B.P. in eastern North America: regression equations for estimates from fossil-pollen data, *Syllogeus*, 55:301-342, (Climate Change in Canada 5).

Bartlein, P.J., T. Webb III, and E.C. Fleri, 1984, Holocene climatic change in the northern Midwest: pollen-derived estimates, *Quaternary Research*, 22:361-374.

Bartlein, P.J. and T. Webb III, 1982, Holocene climatic changes estimated from pollen data for the northern Midwest, in *Quaternary History of the Driftless Area*, (J.C. Knox, L. Clayton, and D.M. Mickelson, eds.), Wisconsin Geological and Natural History Survey, Madison, pp. 67-81.

Bartlein, P.J., 1982, Streamflow anomaly patterns in the U.S.A. and southern Canada -- 1951-1970, *J. Hydrology* 56:49-63.

Bartlein, P.J., 1978, The influence of short-period climatic variations on streamflow in the United States and southern Canada, 1951-1970, Ph.D. dissertation, Department of Geography, University of Wisconsin-Madison, 276 p.



Knox, J.C., P.J. Bartlein, K.K. Hirschboeck and R.J. Muckenhirn, 1975, The response of floods and sediment yields to climatic variation and land use in the Upper Mississippi Valley, Institute for Environmental Studies, University of Wisconsin-Madison, Report 52, 76 p.

Knox, J.C., P.J. Bartlein and W.C. Johnson, 1974, Environmental assessment of sediment sources and sedimentation distribution for the Lake LaFarge watershed and impoundment, Institute for Environmental Studies, University of Wisconsin-Madison, Report 28, pp. 77-116.

#### INVITED LECTURES AND SELECTED CONFERENCE PAPERS

“Disentangling the Hierarchy of Controls and Responses in Paleoclimatic Variations: A Diagnostic Study of the Mid-Holocene Drought in the Mid-Continent of North America Using Paleohydrological Data Syntheses and Transient Climate Simulations (Invited), P.J. Bartlein and S.P. Harrison, Abstract PP21B-02 presented at the 2018 Fall Meeting, AGU, Washington D.C., 10-14 December 2018.

“The calendar effect in PMIP4 time-slice and transient experiments: overall impact and strategies for data analysis.” P.J. Bartlein and S.L. Shafer, 1<sup>st</sup> PMIP4 Conference, Swedish Museum of Natural History, Stockholm, Sep. 25-29, 2017.

“The impact of the calendar effect and pseudo-daily interpolation algorithms on paleoclimatic data-model comparisons.” P.J. Bartlein and S.L. Shafer, Abstract PP31C-2296 presented at 2016 Fall Meeting, AGU, San Francisco, Calif., 11-15 Dec.

“Diagnosing mismatches between simulations and observations in data-model comparisons using the CMIP5.PMIP3 simulations”, Eos Trans. AGU, 95, Fall Meet. Suppl., Abstract PP42A-08 (2015)

“Time” (with Stephen Daniels), in “Radical Intradisciplinary”, 2015 Association of American Geographers Presidential Plenary Session “

“Global and regional variations in biomass burning since the last glacial maximum” (invited), J.R. Marlon and P.J. Bartlein, Syntraces Workshop, Providence RI, November 2012.

“The sedimentary charcoal record of regional and global biomass burning on multi-decadal-to-orbital time scales” (invited), P.J. Bartlein and J.R. Marlon, Eos Trans. AGU, 91, Fall Meet. Suppl., Abstract GC33E-06 (2011)

“Evaluation of the CMIP-5 paleo-simulations” (Invited), S.P. Harrison and P.J. Bartlein (2011) World Climate Research Program Open Science Conference, Denver, October 2011.

“The terrestrial paleoclimatic record of climate-system reorganization over the past 21,000 years” (Invited) Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract PP13G-01 (2010)

“Pollen-based reconstructions of bioclimatic variables for the mid-Holocene and LGM: issues and strategies in diagnosing and benchmarking paleoclimatic simulations”, P.J. Bartlein and Late-Quaternary Quantitative Climate Reconstruction Working Group, PMIP-3 Kyoto Workshop, (invited) November 2010.

“The past as a key to the future: why paleoclimatology tells us that global warming is real and may be worse than we think” Roy J. Shlemon Center for Quaternary Research, University of Wyoming, April 2010.

“Climate modes and their role in climate variations in the western United States: past, present, and future” Department of Geography, University of Utah (invited) April 2009.

“Data-Model Comparisons: Overview” S.P. Harrison and P.J. Bartlein, Palaeoclimate Modelling Intercomparison Project, Phase II. Workshop, Estes Park, CO (invited) September 2008.

“Abrupt climate change in a warming world: lessons from Holocene droughts,” Dickey Center for International Understanding Lecture Series on Social Dimensions of Global Environmental Change (invited), May 2007.

“Applicability of Oscillatory Climate-Mode Indices for the Diagnosis and Prognosis of Interannual and Longer Time Scale Climate Variability of the Northeastern Pacific and Western North America”, American Geophysical Union Fall Meeting, San Francisco, December 2006.

“Temporal and Spatial Structure in the Climatic Controls of Wildfire in the Western United States” P.J. Bartlein and S.W. Hostetler, invited presentation, 3rd International Fire Ecology & Management Congress, San Diego, November 2006.

“Climate and fire in the western United States,” Trewartha lecture (invited), Department of Geography, University of Wisconsin, April 2006.

“A hierarchical view of the climatic controls of wildfire in the western United States,” invited lecture, Department of Geography, University of Minnesota, April 2005.

“Using the Paleorecord to Evaluate Climate-Model Performance in Projecting Changes in Climate Variability,” P.J. Bartlein, invited presentation, American Geophysical Union Fall Meeting, San Francisco, December 2004.

“Using Model Simulations to Improve Interpretations of Paleoclimate Variability and Estimates of Potential Future Droughts,” S.L. Shafer and P.J. Bartlein, American Geophysical Union Fall Meeting, San Francisco, December 2004.

“Hierarchical controls of fire weather and fire climate in the western United States,” P.J. Bartlein, S.W. Hostetler, S.L. Shafer, J.O. Holman, and A.M. Solomon, American Geophysical Union Fall Meeting, San Francisco, December 2004.

“Broad-scale climatic controls on fire regimes in the western United States -- today and during the Holocene,” P.J. Bartlein, C. Whitlock, and S. Hostetler, invited presentation, Ecological Society of America, Annual Meeting, August 2004.

“Development of Modern Analogue and Mutual Overlap Techniques for Paleoclimatic Reconstructions and Model Validation from Plant Macrofossil Assemblages in North America,” R.S. Thompson, K.H. Anderson, L.E. Strickland, P.J. Bartlein, S.L. Shafer, American Geophysical Union Fall Meeting, San Francisco, December 2003.

“Assessment of Modern Climate Baselines for Paleoclimatic Reconstructions and Model Testing in North America,” S.L. Shafer, P.J. Bartlein, K.H. Anderson, R.S. Thompson, American Geophysical Union Fall Meeting, San Francisco, December 2003.

“Disturbance Frequency Changes in Western North and South America During the Holocene,” C. Whitlock, P. Bartlein, M.M. Bianchi, C. Briles, A. Brunelle, C. Long, V. Markgraf, J. Marlon, C. Meeker, M. Power, M. Walsh, American Geophysical Union Fall Meeting, San Francisco, December 2003.

“Holocene fire reconstructions from the northwestern U.S.: an examination at multiple time scales” C. Whitlock, P.J. Bartlein, J. Marlon, A. Brunelle and C. Long, 5<sup>th</sup> Symposium on Fire and Forest Meteorology, and 2<sup>nd</sup> International Wildland Fire Ecology and Fire Management Congress, American Meteorological Society, Orlando FL, November 2003.

“Using a regional climate model to diagnose climatological and meteorological controls of wildfire in the western United States,” S.W. Hostetler, P.J. Bartlein, J.O. Holman, A.M. Solomon and S.L. Shafer, 5<sup>th</sup> Symposium on Fire and Forest Meteorology, and 2<sup>nd</sup> International Wildland Fire Ecology and Fire Management Congress, American Meteorological Society, Orlando FL, November 2003.

“The seasonal cycle of wildfire and climate in the western United States” P.J. Bartlein, S.W. Hostetler, S.L. Shafer, J.O. Holman, and A.M. Solomon, 5<sup>th</sup> Symposium on Fire and Forest Meteorology, and 2<sup>nd</sup> International Wildland Fire Ecology and Fire Management Congress, American Meteorological Society, Orlando FL, November 2003.

“Comparisons of paleoenvironmental observations and paleoclimatic simulations: principal results and strategies for the next iteration” P.J. Bartlein and S.P. Harrison, Invited presentation, XVI International Quaternary Association Congress, Reno NV, July 2003

“Examining the Pacific airmass model of Holocene Aridity in the Mid-Continent of North America” J.J. Shinker, B.N. Shuman and P.J. Bartlein, American Geophysical Union Fall Meeting, San Francisco, December 2002.

"Hydrologic and vegetation changes in the northwestern U.S. and their role in shaping past and future fire regimes" C. Whitlock, P.J. Bartlein and S.L. Shafer, American Geophysical Union Fall Meeting, San Francisco, December 2002.

"Spatial Relationships Between Patterns of Woody-Plant Taxonomic Richness and Environmental and Bioclimatic Variables in North America" Robert S. Thompson, Sarah L. Shafer, Katherine H. Anderson, Patrick J. Bartlein, American Geophysical Union Fall Meeting, San Francisco, December 2001

"North American mid-continental aridity: atmospheric circulation, moisture flux, and surface water- and energy-balance controls" Peter V. Killoran, J.J. Shinker, and P.J. Bartlein, American Geophysical Union Fall Meeting, San Francisco, December 2000.

"Arctic Land-Atmosphere Interactions Since the Last Glacial Maximum: Perspectives from Models of Climate, Vegetation, Ice Sheets, and Continental Hydrology, and from Paleoenvironmental Data Syntheses." Invited presentation, American Geophysical Union Fall Meeting, San Francisco, December 2000.

"The Westerlies." Invited presentation, InterPEP Linkages workshop, PAGES International Project Office, Bern, Switzerland, September 1999.

"The northern continental interiors during the Holocene: pattern, timing and possible mechanisms of dry phases." Invited lecture, European Science Foundation, European Research Conference, Albufiera, Portugal, May 1999.

"The role of vegetation in paleoclimatic variations." Invited lecture, Earth Sciences Dept., University of California, Santa Cruz, May 1999.

"Controls and effects of orbital-timescale paleoclimatic variations." Invited presentation, *Mechanisms of Millennial-Scale Global Climatic Changes*, American Geophysical Union Chapman Conference, June 1998.

"Characteristic features of climatic variations on timescales from  $10^1$  to  $10^7$  years." Invited lecture, Ecological Society of America Annual Meeting, August 1997.

"Forward and inverse modeling approaches for data-model comparisons," Invited lecture, European Science Foundation, European Research Conference, Il Ciocco, Italy, May 1997.

"Climate-simulations of the glacial-interglacial transition. Invited lecture, Quaternary Research Center, University of Washington, Seattle, March 1997.

"Applications of paleoclimatic simulations and data syntheses to understanding the climate system." oral presentation, First GAIM Science Conference, Garmisch-Partenkirchen, Germany, Sept. 1995.

"Past environmental changes: characteristic features of Quaternary climate variations." invited paper, NATO Past and Future Rapid Environmental Changes: The Spatial and Evolutionary Responses of Terrestrial Biota, Crieff, Scotland, June 1995.

"Application of lake status data in testing palaeoclimatic hypotheses." invited paper, ESF/EPC Workshop on Paleohydrology as reflected in lake-level changes as climatic evidence for Holocene times, Hörby, Sweden, May 1995.

"Past and potential future vegetation responses to climatic variations in the western United States," and "The spectrum of climatic variations and its ecological and evolutionary implications." invited lectures, Univ. Minnesota, April 1993.

"Forward- and inverse-modeling approaches to paleodata interpretation," invited presentation, NATO Advanced Research Workshop, Aussois, France, October 1993.

"The forward-modeling approach in paleoclimatic analysis: middle-Pliocene vegetation distributions in North America," invited presentation, U.S. Geological Survey, Pliocene Research, Interpretation and Synoptic Mapping (PRISM) Project Workshop, Reston, Virginia, May 1993.

"What past climates can tell us about the future," and "A framework for paleoclimatic variations in Beringia," invited lectures, Alaska Quaternary Center and Global Change Institute, University of Alaska, Fairbanks, October 1992.

"Biotic responses to climatic changes during the Quaternary," and "Validation of climate simulation models using paleoecological data," invited lectures, University of Arizona, Tucson, April 1992.

"Large-scale controls of paleoclimatic variations in northwestern North America," invited symposium lecture, Quaternary Research Center, Seattle, May 1992.

"Analysis of the patterns of Holocene climatic change in the Northern Rocky Mountains," C. Whitlock and P.J. Bartlein, 1991 Annual Meeting, Geological Society of America, San Diego, October 1991.

"Environmental controls of playa status and processes, Western U.S.," P.F. McDowell, P.J. Bartlein and S.P. Harrison, 1991 Annual Meeting, Geological Society of America, San Diego, October 1991.

"Large-scale controls of the seasonal variations of temperature, precipitation and effective moisture in the Western United States," P.J. Bartlein and C. Whitlock, invited paper presented at the 1991 Annual Meeting, Geological Society of America, San Diego, October 1991.

"Modern vegetation/climate relationships, changes in plant distributions and paleoclimatic estimates in the western United States," R.S. Thompson and P.J. Bartlein, invited paper presented at the 76th Annual Meeting, Ecological Society of America, San Antonio, August 1991

"Paleoclimatic simulations and the interpretation of Quaternary records," invited lecture, Department of Quaternary Geology, Lund University, May 1991.

"Climatic variability on all time scales" and "What paleoclimatic models can tell us about Quaternary climatic variations," invited lectures, Department of Physical Geography, Uppsala University, May 1991.

"Climatic assessment of the last deglaciation in the Pacific Northwest as inferred from paleobotanical data," C. Whitlock, R.S. Thompson and P.J. Bartlein, 1990 Annual Meeting, Geological Society of America, Dallas, October 1990.

"Reconciliation of paleoclimatic simulations and the paleoecological and geological record," presented at the 43rd Annual Meeting of the Rocky Mountain Section of the Geological Society of America, Jackson, Wyoming, May 1990.

"Paleoecological contributions to climatological research," presented at the 1990 Annual Meeting of the Association of American Geographers, Toronto, April 1990.

Rapporteur, Second Global Change Institute, Snowmass, Colorado, July 1989.

"Large-scale controls of late-Quaternary climatic variations in the Pacific Northwest," invited paper presented at a symposium in honor of Henry P. Hansen, Quaternary Research Center, University of Washington, Seattle, May 1989.

"Paleoclimatic responses to changing ice-sheet size, sea-ice extent, sea-surface temperature and insolation," invited paper presented at the Tenth Biennial Conference, American Quaternary Association (AMQUA), Amherst, June 1988.

"Paleoclimatic implications of regional patterns in the late-glacial vegetation of the northwestern U.S.," C.W. Barnosky and P.J. Bartlein, Geological Society of America, Rocky Mountain Section Meetings, Sun Valley, May 1988.

"Paleoclimatic simulations for the past 18,000 years: The role of boundary condition changes in determining regional climatic chronologies," invited paper presented at IGCP 158: Palaeohydrological Changes in the Temperate Zone in the Last 15000 Years, Symposium, Lund, Sweden, May 1987.

"Climatic response surfaces for dynamic plant geography," P.J. Bartlein and I.C. Prentice, invited paper presented at the Ecological Society of America Symposium, "Vegetation Response to Temporal Climatic Change", Minneapolis, June 1985.

"Warm Holocene climates: analogs for the future?" invited lecture, Quaternary Research Center, University of Washington, May 1985.

"Time series analysis of a 1000-year high-resolution pollen record from north-central Wisconsin," J.T. Overpeck and P.J. Bartlein, VIth International Palynological Conference, Calgary, August 1984.

"Climatic response surfaces for some eastern North American pollen types," P.J. Bartlein, I.C. Prentice and T. Webb III, presented at the Eighth Biennial Conference American Quaternary Association (AMQUA), Boulder, August 1984.

"Predictable components of climatological data sets," presented at the 1984 Annual Meeting of the Association of American Geographers, Washington D.C., April 1984.

"Holocene climatic change in the Midwest United States: temperature and precipitation maps," presented at the Second Conference on Climatic Variations of the American Meteorological Society, New Orleans, January 1983.

"Holocene precipitation variations in the midwestern United States," P.J. Bartlein and T. Webb III, presented at the Seventh Biennial Conference American Quaternary Association (AMQUA), Seattle, June 1982.

"Extent and duration of the mid-Holocene drought in the midwestern United States," P.J. Bartlein and T. Webb III, presented at the 1982 Annual Meeting of the Association of American Geographers, San Antonio, April 1982.

"Holocene patterns of moisture stress and airmasses in eastern North America," P.J. Bartlein and E.C. Fleri, Symposium on Variations in the Global Water Budget, Oxford, U.K., August 1981.

"Characterization of causality and feedback between climatic time series," presented at the First Conference on Climatic Variations, American Meteorological Society, San Diego, January 1981.

"Climatic anomalies and streamflow," invited paper presented at the 1980 Climate Symposium, Department of Geography, Louisiana State University, March 1980.

"Water years 1973 and 1977--Examples of the dependence of water supplies on short-period climatic variations," presented at the annual meeting of the Association of American Geographers, New Orleans, April 1978.

"Short period climatic variations and Lake Superior net basin supplies," presented at the 20th Conference of Great Lakes Research, Ann Arbor, May 1977.

"The influence of large-scale atmospheric circulation on Lake Superior levels and supplies," presented at the 1977 Annual Meeting of the Association of American Geographers, Salt Lake City, April 1977.

#### PROFESSIONAL MEMBERSHIPS

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

#### MANUSCRIPT REVIEWS

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

#### EDITORIAL BOARDS

Current: *Quaternary Research* (Associate Editor); *Annals*, Association of American Geographers

Past: *Quaternary Science Reviews*, *The Holocene* (Associate Editor); *Geology*

## 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.

## EXTERNAL REVIEWS OF PROMOTION-AND-TENURE CASES

2001 (1), 2002 (2), 2003 (1), 2004 (2), 2005 (2), 2006 (4), 2007 (4), 2008 (3), 2009 (2), 2010 (2); 2011 (4); 2012 (4); 2013 (3); 2014 (3); 2015 (1); 2016(3); 2017 (2)

## OTHER PROFESSIONAL SERVICE

National Science Foundation, Earth-System History Program, Review Panel Member (2005)

National Science Foundation, Earth-System History Program, Paleoclimatology of the Arctic (PARCS) Steering Committee Member (1997-2000)

National Oceanic and Atmospheric Administration, Review Panel Member, Paleoclimatology Program, 1996-1997

National Science Foundation, Review Panel Member, Geography and Regional Science Program, 1994-95

Organizing Committee, NATO Advanced Research Workshop, "Strategies for the Use of Paleoclimate Data Sets in Climate Model Intercomparison and Evaluation," 1993.

Scientific Program Co-Chair, American Quaternary Association, 1994 Biennial Meeting

National Science Foundation, Paleoclimatology of Arctic Lakes and Estuaries, Steering Committee Member

American Quaternary Association, Council Member, 1991-92

Program Committee, Association of American Geographers, 1986 Annual Meeting

## PARTICIPATION IN INTERNATIONAL COLLABORATIVE RESEARCH PROGRAMS

COHMAP -- Cooperative Holocene Mapping Project (NSF)

PMIP -- Paleoclimate Modelling Intercomparison Project (NATO, NOAA, IGBP-PAGES)

TEMPO -- Testing Earth-system Models using Paleoenvironmental Observations (NSF)

LIGA -- Last Interglacial in the Arctic (NATO)

Biome 6000 -- Paleovegetation Mapping (IGBP)

GPWG -- Global Palaeofire Working Group (QUEST, NSF)

INQUA/PALCOMM -- International Quaternary Union, Paleoclimatology Commission

## OTHER

IPCC Fifth Assessment Report, Contributing Author, Ch. 5.

U.S. Climate Change Science Program, Synthesis and Assessment Product 3.4, Abrupt Climate Change, contributing author

U.S. National Assessment, *Climate Change Impacts on the United States*, member, forest sector assessment team.

IPCC Third Assessment Report, Expert Reviewer, Ch. 2, 3, 8 and 10.

## UNIVERSITY COMMITTEE SERVICE

2015-2015 Faculty Personnel Committee (university P&T)

2011-2013 CAS Dean's Advisory Committee (college P&T), chair (2012-2013)

2007-2007 UO Educational Technology Committee

2005-2007 College of Arts and Science Curriculum Committee

2006-2007 University Undergraduate Council

2001 Outside member, Mikesell Chair (Economics) search committee

1998-2000 Faculty Personnel Committee (university P&T)

1993 Internal review committee, Dept. Mathematics

1992-1996 Data Services Laboratory Committee

1991-1993 University Graduate Council, Secretary

1987-2000 Social Sciences Instructional Computing Laboratory Committee (chair, 1993)



1986-87 Applications Committee, University Computing Center

#### DEPARTMENTAL COMMITTEE SERVICE

Computing and Equipment	1982/83-2009
Graduate Admissions	1987/88, 1988/89, 1989/90, 1992/93, 1995/96, 1996/97, 1997/98, 1999/00
Search Committee (*=chair)	1988/89, 1993/94*, 1996/97*(2), 1997/98*, 1998/99*, 1999/00*, 2000/01*, 2003/04*, 2005/06, 2006/07, 2010/11
Affirmative Action Liaison	1996/97-present
Personnel	1997/98-2001/02 ; 2006/07- ??

#### GRADUATE AND POST-GRADUATE STUDENT TRAINING

Post-doctoral advisor:

Shuman, B. Integrating Late-Quaternary lake-level Records with fossil -pollen data to document millennial-scale variations in North American climates. NOAA Postdoctoral Program in Climate and Global Change, August 2001-July 2003.

Advisor: (10 Ph.D., 8 Master's)

Izumi, K., 2014, Application of paleoenvironmental data for testing climate models and understanding past and future climate variations, Ph.D. Dissertation, University of Oregon, Department of Geography, 172 p.

Praskievicz, S., 2014, A hierarchical modeling approach to simulating the geomorphic response of river systems to climate change. Ph.D. Dissertation, University of Oregon, Department of Geography, 133 p.

Young, A., 2014, Analysis of spatiotemporal variations in human- and lightning-caused wildfires from the western United States (1992-2011). M.S. Thesis, University of Oregon, Department of Geography, 45 p.

Marlon, J., 2009, The geography of fire: A paleo perspective, Ph.D. Dissertation, University of Oregon, Department of Geography, 225 p.

Tang, G., 2008, An examination of vegetation modeling-related issues and the variation and climate sensitivity of vegetation and hydrology in China, Ph.D. Dissertation, University of Oregon, Department of Geography, 156 p.

Light, A. 2004, Reflexive design and design patterns for GIS and Cartography. Ph.D. Dissertation, University of Oregon, Department of Geography, 97p.

Holman, J.O., 2004, Quantitative comparison of categorical maps with applications for the analysis of global environmental data. Ph.D. Dissertation, University of Oregon, Department of Geography, 107p.

Shinker, J.J., 2003. Mechanistic controls of North American climate variability. Ph.D. Dissertation, University of Oregon, Department of Geography, 152 p.

Shafer, S.L., 2000. Potential vegetation response to future climate change in western North America and its implications for biological conservation and geographical conceptualizations of place. Ph.D. Dissertation, University of Oregon, Department of Geography, 150 p.

Killoran, P.V., 2000. Controls of surface temperature and precipitation patterns associated with the Asian summer monsoon. M.S. Thesis, University of Oregon, Department of Geography, 54 p.

Shinker, J.J., 1999. Development and persistence of North American mid-continental moisture anomalies. M.A. Thesis, University of Oregon, Department of Geography, 68 p.

Holman, J., 1996. Spatial interpolation of categorical data : an application for mapping global vegetation data. M.S. Thesis, University of Oregon, Department of Geography, 47 p.

Mock, C.J., 1994. Modern climate analogues of late-Quaternary paleoclimates for the Western United States. Ph.D. Dissertation, University of Oregon, Department of Geography, 286 p.

Shafer, S.L., 1993. The hydrologic response to landuse change in a small watershed in western Oregon. M.S. Thesis, University of Oregon, Department of Geography, 106 p.

Gottfried, C.E., 1992. Residential wood heating and urban air quality : evaluation of a voluntary wood-heating curtailment program. M.A. Thesis, University of Oregon, Department of Geography, 83 p.

McDowell, J.S. 1990. Monsoonal influences on vegetation distribution. Terminal Project -- University of Oregon, Interdisciplinary Studies Program, 1990. 56 p.

Lipsitz, B.B., 1988. Climatic estimates for locations between weather stations in the Pacific Northwest : comparison and application of two linear regression analysis methods. M.A. Thesis, University of Oregon, Department of Geography, 68 p.

Hostetler, S.W., 1987. Simulation of lake evaporation with an energy balance-eddy diffusion model of lake temperature: model development and validation, and application to lake-level variations at Harney-Malheur Lake, Oregon. Ph.D. Dissertation, University of Oregon, Department of Geography, 162 p.

Second Reader or Committee Member: (28 Ph.D.; 32 Masters)

Herring, E., 2014, Late Quaternary and Holocene paleoecology of interior mesic forests of northern Idaho. Ph.D. Dissertation, University of Oregon, Department of Geography, 112 p.

Flower, A., 2013, Western spruce budworm, climate, and forest fire interactions in the Interior Pacific Northwest: a Multi-century Dendrochronological Analysis, Ph.D. Dissertation, University of Oregon, Department of Geography.

Fisher, D., 2013, Postglacial transient dynamics of Olympic Peninsula forests: Comparing predictions and observations, M.S. Thesis, University of Oregon, Department of Geography, 70 p.

Kelly, M., 2013, Route descriptions using maps, photomaps and imagery: an experimental analysis. Ph.D. Dissertation, University of Oregon, Department of Geography.

Massingill, C., 2011, Geomorphology, hydrology and biology of floodplain vegetation in the Sprague Basin, OR: history and potential for natural recovery. Ph.D. Dissertation, University of Oregon, Department of Geography.

Lawrence, M., 2011, Behavioral and neurological studies in tactile map reading and training by persons who are blind or visually impaired. Ph.D. Dissertation, University of Oregon, Department of Geography.

Hughes, M., 2008, Channel change of the Upper Umatilla River during and between flood periods: variability and ecological implications. Ph.D. Dissertation, University of Oregon, Department of Geography.

Walsh, M.K. 2008, Natural and Anthropogenic Influences on the Holocene Fire and Vegetation History of the Willamette Valley, Northwest Oregon and Southwest Washington. Ph.D. Dissertation, University of Oregon, Department of Geography, (co-advisor)

Briles, C.E., 2008, Vegetation and fire history of the biologically diverse Klamath Mountains, northern California, USA. Ph.D. Dissertation, University of Oregon, Department of Geography, (co-advisor)

Power, M. 2006. Recent and Holocene fire, climate and vegetation linkages in the northern Rocky Mountains, USA. Ph.D. Dissertation, University of Oregon, Department of Geography, 244 p. (co-advisor).

Day, J.W. 2005. Historical savanna structure and succession at Jim's Creek, Willamette National Forest, M.A. Thesis, University of Oregon, Department of Geography, 55p.

Kohler, N.P., 2005, Protected areas and landscape change in mainland southeast Asia. Ph.D. Dissertation, University of Oregon, Department of Geography, 129 p.

- Rubenstein, V., 2005, Interpretation of charcoal accumulation rates in a sediment core from Carp Lake, Washington. M.A. Thesis, University of Oregon, Department of Geography,
- Seralles, R.J., 2004, Landscape, electricity, and policy: an integrated geographic approach to renewable energy. Ph.D. Dissertation, University of Oregon, Department of Geography
- Bandow, J.R., 2003. Holocene alluvial history of the Middle Fork John Day River, Oregon. M.A. Thesis, University of Oregon, Department of Geography. 106 p.
- Minckley, T.A., 2003. Holocene environmental history of the northwestern Great Basin and the analysis of modern pollen analogues in western North America. Ph.D. Dissertation, University of Oregon, Department of Geography, 310 p.
- Marlon, J., 2003. A meta-analysis of charcoal-based fire history records from the northwestern United States. M.S. Thesis, University of Oregon, Department of Geography.
- Long, C.J., 2003. Holocene fire and vegetation history of the Oregon Coast Range, USA, Ph.D. Dissertation, University of Oregon, Department of Geography, 270 p.
- Green, J.K., 2003, Influence of debris flow deposits on small stream channel morphology in the Oregon Coast Range. M.S. Thesis, University of Oregon, Department of Geography.
- Dalldorf, G.K., 2003. Influences of wind direction, topography and Paleolake history on the formation of Aeolian deposits in the Connley Hills, Fort Rock Basin, Lake County, Oregon. M.A. Thesis, University of Oregon, Department of Geography, 122 p.
- Briles, C.E., 2003. Postglacial vegetation and fire history near Bolan Lake in the northern Siskiyou Mountains of Oregon. M.S. Thesis, University of Oregon, Department of Geography. 149 p.
- Fouty, S.C., 2003. Current and historic stream channel response to changes in cattle and elk grazing pressure and beaver activity. Ph.D. Dissertation, University of Oregon, Department of Geography, 646p.
- Brunelle-Daines, A. 2002. Holocene changes in fire, climate and vegetation in the Northern Rocky Mountains of Idaho and western Montana. Ph.D. Dissertation, University of Oregon, Department of Geography, 178 p.
- Peters, J.N., 2001. Spatial variability and controls of bank instability in a semi-arid drainage basin in Southeastern Utah. M.A. Thesis, University of Oregon, Department of Geography, 114 p.
- Henderson, A., 2000. The monsters that lurk in a world without apparitions. Terminal Project, University of Oregon, Interdisciplinary Studies Program (English, Folklore, Geography), 71 p.
- Berkley, E.L., 2000. Temporal and spatial variability of fire occurrence in Western Oregon, A.D. 1200 to present. M.S. Thesis, University of Oregon, Department of Geography, 110 p.
- Grigg, L.D., 2000. Millennial-scale vegetation and climate variations in the Pacific Northwest during the last glacial period (60,000-16,000 cal yr B.P.). Ph.D. Dissertation, University of Oregon, Department of Geography, 250 p.
- Taylor, C.H., 2000. Evaluation of stream habitat enhancement projects in the Umatilla National Forest, northeast Oregon and southeast Washington. M.A. Thesis, University of Oregon, Department of Geography, 373 p.
- Blinnikov, M.S., 1999. Late-Pleistocene history of the Columbia Basin grassland based on phytolith records in loess. Ph.D. Dissertation, University of Oregon, Department of Geography, 211 p.
- Tattersall, A.M., 1999. Changes in the distribution of selected conifer taxa in the Pacific Northwest during the last 20,000 years. M.S. Thesis, University of Oregon, Interdisciplinary Studies Program, 111p.
- Minckley, T.A., 1999. Spatial variation of modern pollen rain in Oregon and southern Washington. M.A. Thesis, University of Oregon, Department of Geography, 127 p.

- Blinnikov, M.S., 1999. Late-Pleistocene history of the Columbia Basin grassland based on phytolith records in loess. Ph.D. Dissertation, University of Oregon, Department of Geography, 211 p.
- Gardner, J.J., 1999. Charcoal accumulation in lake sediments following a modern fire in the central Cascade Range, Oregon. M.S. Thesis, University of Oregon, Department of Geography, 88 p.
- Jett, S.M., 1998. Alluvial fan development in a confined montane valley, Middle Fork John Day River, eastern Oregon. M.S. Thesis, University of Oregon, 179 p.
- Hwang, Y.J., 1998. Forest land disturbance and geomorphological effects in Korea. Ph.D. Dissertation, University of Oregon, Department of Geography, 163 p.
- Freifeld, H., 1998. Temporal and spatial variation in forest birds on Tutuila Island, American Samoa. Ph.D. Dissertation, University of Oregon, Department of Geography, 180 p.
- Rosentrater, L.D., 1997. The thermal climate of the H.J. Andrews Experimental Forest. M.S. Thesis, University of Oregon, Department of Geography, 133 p.
- Mohr, J.A., 1997. Postglacial vegetation and fire history near Bluff Lake, Klamath Mountains, California. M.S. Thesis, University of Oregon, Department of Geography, 160 p.
- Millspaugh, S.H., 1997. Late-glacial and Holocene variations in fire frequency in the Central Plateau and Yellowstone-Lamar Provinces of Yellowstone National Park. Ph.D. Dissertation, University of Oregon, Department of Geography, 262 p.
- Droz, M.S., 1997. Geomorphic and climatic history of holocene channel, playas, and lunettes in the Fort Rock Basin, Lake County, Oregon. M.A. Thesis, University of Oregon, Department of Geography, 115 p.
- Grigg, L.D., 1996. Late-glacial vegetation and climate change in western Oregon. M.A. Thesis, University of Oregon, Department of Geography, 80 p.
- Lamb, A.W., 1996. Geomorphic conditions in salmonid-supporting streams : Umatilla National Forest, northeast Oregon and southeast Washington. M.A. Thesis, University of Oregon, Department of Geography, 163 p.
- Long, C.J., 1996. Fire history of the central Coast Range, Oregon : a ca. 9000 year record from Little Lake. M.A. Thesis, University of Oregon, Department of Geography, 147 p.
- Willson (Songer), L.S., 1994. Reconstructing global surficial deposits at the last glacial maximum. M.A. Thesis, University of Oregon, Department of Geography, 89 p.
- Sea, D.S., 1993. Postglacial vegetation history of Indian Prairie fen and Gold Lake Bog, Central Cascade Range, Oregon. M.S. Thesis, University of Oregon, Department of Geography, 126 p.
- Freifeld, H., 1993. Patterns of vegetation and nesting seabirds at Midway Atoll, Northwestern Hawaiian Islands. M.A. Thesis, University of Oregon, Department of Geography, 68 p.
- Dugas, D.P., 1993. Formation processes and chronology of dune islands at Malheur National Wildlife Refuge, Harney County, Oregon. Ph.D. Dissertation, University of Oregon, Department of Geography, 220 p.
- Freidel, D.E., 1993. Chronology and climatic controls of late Quaternary lake-level fluctuations in Chewaucan, Fort Rock, and Alkali basins, south-central Oregon. Ph.D. Dissertation, University of Oregon, Department of Geography, 244 p.
- McGrath, T.S., 1990. The use of geographic information systems in recreation management : a case study in the Oregon Dunes National Recreation Area. M.A. Thesis, University of Oregon, Department of Geography, 137 p.
- Nakama, L.Y., 1990. Calibration and application of the PRMS watershed model for a forested, headwater basin in Western Oregon. M.A. Thesis, University of Oregon, Department of Geography, 78 p.

Benjamin, J.E., 1989. Holocene lunette formation and stratigraphy in the Fort Rock Basin, Lake County, Oregon. M.S. Thesis, University of Oregon, Department of Geography, 92 p.

Hatton, R.R., 1989. Climatic variations and agricultural settlement in southeastern Oregon. Ph.D. Dissertation, University of Oregon, Department of Geography, 262 p.

Freidel, D.E., 1989. Alluvial stratigraphy in relation to archaeological features on the Long Tom River floodplain, Veneta, Oregon. M.A. Thesis, University of Oregon, Department of Geography, 137 p.

Phillips, R.H., 1987. The prospects for regional groundwater contamination due to karst landforms in Mescalero caliche at the WIPP site near Carlsbad, New Mexico. Ph.D. Dissertation, University of Oregon, Department of Geography, 316 p.

Teensma, P.D.A., 1987. Fire history and fire regimes of the central western Cascades of Oregon. Ph.D. Dissertation, University of Oregon, Department of Geography, 188 p.

Brenner, D.M., 1986. Variation in wild hazelnuts (*Corylus Cornuta* Marsh.) of the Northwest United States. M.A. Thesis, University of Oregon, Department of Geography, 105 p.

McKeown, R.R., 1986. Regional variation of streamflow distributions in Tennessee. Ph.D. Dissertation, University of Oregon, Department of Geography, 233 p.

Al-Mudaiheem, K., 1985. Water resources and provision problems of Riyadh, Saudi Arabia : an analytical study. Ph.D. Dissertation, University of Oregon, Department of Geography, 261 p.

Outside/External Committee Member: (16 Ph.D.)

Seligman, A.N. 2016, Oxygen and hydrogen investigation of volcanic rocks: petrogenesis to paleoclimate, Ph.D. Dissertation, University of Oregon, Department of Geological Sciences.

Vandergrift, A. (Roo), 2016, Ecological roles of fungal edophytes. Ph.D. Dissertation, University of Oregon, Department of

Peryam, T., 2012, Sedimentation, climate change and tectonics: dynamic stratigraphy of the Pliocene-Pleistocene Fish Creek-Vallecito Basin, California. Ph.D. Dissertation, University of Oregon, Department of Geological Sciences.

Wisely, B., 2012, Geophysical and hydrogeologic investigations of two primary alluvial aquifers embedded in the southern San Andreas fault system: San Bernadino basin and upper Coachella Valley. Ph.D. Dissertation, University of Oregon, Department of Geological Sciences.

Culleton, B.J., 2012, Human ecology, agricultural intensification and landscape transformation at the ancient Maya polity of Uxbenka, southern Belize. Ph.D. Dissertation, University of Oregon, Department of Anthropology.

Rust, S., 2011, Hollywood at the tipping point: blockbuster cinema, globalization and the cultural logic of ecology, Ph.D. Dissertation, University of Oregon, Department of English.

Winterhoff, E.H. 2007, The Political Economy of Ancient Samoa: Basalt Adze Production and Linkages to Social Status, Dissertation, University of Oregon, Department of Anthropology.

McInnis, H. 2006, Middle Holocene Climate and Culture on the South Coast of Peru, Ph.D. Dissertation, University of Oregon, Department of Anthropology.

Bulatewicz, T. 2006, Support for Model Coupling: An Interface-based Approach, Ph.D. Dissertation, University of Oregon, Department of Computer and Information Science.

Sahr, K. 2005, Discrete Global Grid Systems: A New Class of Geospatial Data Structures, Ph.D. Dissertation, University of Oregon, Department of Computer and Information Sciences, 190 p.

Diffenbaugh, N.S. 2003. Global and regional controls on Holocene environments. Ph.D. Dissertation, University of California, Santa Cruz, Department of Earth Sciences.

Hanner, R.H., 1997. Taxonomic problems with phylogenetic solutions derived from the integration of biochemical, morphological, and molecular data. Ph.D. Dissertation, University of Oregon, Department of Geography, 383 p.

Caplan, A.J., 1996. Asymmetric externalities and strategic behavior : the case of moderate global warming. Ph.D. Dissertation, University of Oregon, Department of Geography, 145 p.

Webb, R.S. 1990. Late-Quaternary water-level fluctuations in the northeastern United States. Ph.D. Dissertation, Brown University, Department of Geological Sciences, 350 p.

Graumlich, L.J.. 1986. Long-term records of temperature and precipitation in the Pacific Northwest derived from tree rings. Ph.D. Dissertation, University of Washington, College of Forest Resources, 198 p.

Greenspan, R.L., 1985. Fish and fishing in northern Great Basin prehistory. Ph.D. Dissertation, University of Oregon, Department of Geography, 227 p.

#### COURSES TAUGHT AT THE UNIVERSITY OF OREGON

1982-83 101 (S)  
 1983-84 101 (F), 507 (S)  
 1984-85 302 (S)  
 1985-86 507 (W)  
 1986-87 314 (W)  
 1987-88 101 (W), 302 (S), 314 (S)  
 1988-89 302 (F), 4/510 (W), 507 (W)  
 1989-90 302 (F), 4/510 (S), 314 (S)  
 1990-91 101 (F), 321 (F), 507 (F), 314 (W), 607 (W)  
 1991-92 4/514 (W), 4/525 (W), 4/526 (W), 607 (W)  
 1992-93 314 (F), 4/525 (F), 4/526 (F), 4/510 (S)  
 1993-94 314 (F), 4/510 (F), 4/514 (S), 4/525 (S), 4/526 (S)  
 1994-95 sabbatical leave  
 1995-96 102(W), 4/525(W), 4/514(S), 607(S)  
 1996-97 101(F), 4/525(F), 314 (S), 4/532(S)  
 1997-98 101(F)\*, 4/530(F)\*, 607(F)\*, 4/525(F), 102(W), 4/514(W)  
 1998-99 321(F), 607(F), 102(W), 314(W)  
 1999-2000 321(F), 4/514(F), 102(W), 4/521(W)  
 2000-2001 321(F), 314(F), 143(S)\*, 4/532(S), 607(S)  
 2001-2002 321(F), 514(F), 143(S)\*, 4/521(S)  
 2002-2003 sabbatical leave  
 2003-2004 321(F), 514(F), 4/521(S), 607(S)  
 2004-2005 321(F), 4/532(F), 4/530(S), 4/514(S)  
 2005-2006 321(F), 607(F), 4/514(S), 4/521(S)  
 2006-2007 321(F), 4/532(F), 4/514(S), 143(S)  
 2007-2008 321(F), 4/532(F), 607(F), 143(S), 4/514(S)  
 2008-2009 321(F), 4/521(F), 4/517(S), 361(S)  
 2009-2010 sabbatical leave  
 2010-2011 421(W), 4/517(S), 607(S)  
 2011-2012 321(F), 4/517(S), 432(S)  
 2012-2013 421(W), 4/514(W), 321(S), 607(S)  
 2013-2014 361(W), 4/595(W), 321(S), 4/532(S)  
 2014-2015 4/595(W), 605(W), 321(S), 607(S)  
 2015-2016 361 (W), 4/595 (W), 321 (S), 421 (S)  
 2016-2017 sabbatical leave, 4/590 (F), 361 (W), 4/495 (W)  
 2017-2018 611-612 (F&W), 4/521 (W), 4/595 (W), 321 (S)  
 2018-2019 361 (W), 4/595 (W), 321 (S), 4.590 (S)



plus 631 many quarters

\* = co-taught course

101: Geog. 101 The Natural Environment (typical enrollment 200+)  
 102: Geog. 102 Global Environmental Change  
 143: Geog. 143 Global Environmental Change  
 321 (302): Geog. 321 (302) Climatology (100)  
 314: Geog. 314 Geographical Data Analysis (24)  
 361: Geog. 361: Global Environmental Change  
 410: Geog. 410/510 Quaternary Environments (20), Physical Climatology (20),  
 Global Change (24), Paleoclimatology (18)  
 414: Geog. 414/514 Advanced Geographical Data Analysis (10)  
 417: Geog. 417 Geographical Data Analysis (25)  
 421: Geog. 421/521 Advanced Climatology (topic changes)  
 425: Geog. 425/525 Hydrology and Water Resources (40)  
 426: Geog. 426/526 Hydrologic Analysis (15)  
 430: Geog. 430 Long-term Environmental Change (30)  
 432: Geog. 432/532 Climatological Aspects of Global Change (25)  
 495: Geog. 495 Geographical Data Analysis (25)  
 607: Geog. 607 Seminars in Climatology, Quaternary Studies, and Global Change (15)  
 608: Geog. 608 Thesis Writer's Seminar (15)  
 631: Geog. 631 Progress in Physical Geography

#### EXTERNALLY FUNDED RESEARCH AT THE UNIVERSITY OF OREGON

Title	Start Date	Duration	Source	U of O Budget
Prehistoric Climate Determined from Modern Pollen and Climate Relationships	9-82	1 yr	DOE, subcontract from ORNL	\$ 15,000
Application of Pollen-Climate Response Surfaces to the Verification of Climate Model Simulations	8-84	2 yrs	NSF, subcontract from Brown Univ.	16,989
Vegetational and Climatic Histories of Northcentral Alaska During the Late Quaternary	12-84	3 yrs	NSF Division of Polar Programs	67,639
Methods for the Validation of Paleoclimatic Simulations	2-85	3.5 yrs	DOE, subcontract from Brown Univ.	52,987
Prehistoric Climate Determined from Modern Pollen and Climate Relationships	1-86	1 yr	DOE, subcontract from ORNL	8,993
Holocene Paleoclimatic Reconstructions for Europe, NATO Grant for International Collaboration in Research	6-87	2 yrs	NATO Intl. Collaboration in Research	0
COHMAP—Cooperative Holocene Mapping Project	9-87	4 yrs	NSF Climate Dynamics Program	184,650
Paleoclimatology of the Southern Great Basin: Reconstruction of Late-Quaternary Climatic Variations from Paleoecological Data	9-87	4 yrs	USDI, U.S. Geological Survey	115,555
Assessing the Response of Vegetation to Future Trace-Gas-Induced Climatic Change: The Application of Ecological Response Surfaces	1-88	1 yr	EPA, Center for Global Habitability	19,932
COHMAP--Cooperative Holocene Mapping Project	9-91	4 yrs	NSF Climate Dynamics Program	442,000
Paleoclimatic Reconstruction and Climate Model Validation using Paleoecological Data Sets	3-92	2 yr	USDI, U.S. Geological Survey	43,000
Potential Magnitude and Rate of Future Vegetation Change in the Western United States in Response to Global Warming (with C. Whitlock)	7-92	1 yr	DOE, Natl. Inst. Global Environmental Change	75,650

EPA Student Traineeship in Global Change	9-94	3 yrs	EPA, Student Research Traineeship	79,181
TEMPO—Testing Earth-system Models using Paleoenvironmental Observations	6-95	4 yrs	NSF, Paleo-climatology Program	496,868
Quaternary Paleoclimatic Variations in Beringia: Large-Scale Controls and Regional Responses (with C. Mock)	6-96	3 yrs	NSF, Arctic System Science	224,565
Applications of Continental-Scale Climate and Vegetation Data Sets to the Validation of Climate Models and the Projection of the Impacts of Future Climatic Changes	10-96	1 yr	USDI, U.S. Geological Survey	24,995
Collaborative Research: Late-Quaternary Climate of Northeast Asia: Temporal and Spatial Variations (with C. Mock)	10-98	3 yrs	NSF, Earth-System History Program	111,766
TEMPO—Testing Earth-system Models using Paleoenvironmental Observations	9-99	4 yrs	NSF, Earth-System History Program	286,383
Collaborative Research: Land-Atmosphere Interactions in Beringia over the Last 21,000 Years: An Investigation of Feedback Using the Arctic Regional Climate System Model	9-2000	4 yrs	NSF, Earth-System History Program	83,853
Methods for Projecting the Response of Vegetation to Regional Climate Change	9-2000	1 yr	USDI, U.S. Geological Survey	44,995
Collaborative ESH/PARCS Research: Centennial-to-Millennial-Scale Climatic Fluctuations in Northeast Siberia during the Last Glacial Cycle (P. Anderson, L. Brubaker, PIs)	9-2001	3 yrs	NSF, Earth-System History Program	0
Development and Testing of Process-Based Models and Datasets for Regional-Scale Modeling	3-2001	1 yr	USDI, U.S. Geological Survey	43,025
Climatic Controls of Fire in the Western United States: from the Atmosphere to Ecosystems (S. Hostetler, P. Bartlein, and A. Solomon, PIs, \$572,136 total)	10-2001	3 yrs	USDI, Joint Fire-Science Program	0
Holocene Fire-Climate-Vegetation Linkages in the Western Mid-latitude Forests of North and South America (C. Whitlock and P. Bartlein, PIs)	10-2001	3 yrs	NSF, Earth-System History Program	418,634
Doctoral Dissertation Research: Visualizing Mechanistic Controls of North American Climate Variability Through Cartographic Animation. (J.J. Shinker and P. Bartlein)	8-2002	1.5 yrs	NSF, Geography and Regional Science Program	9,445
Collaborative Research: Surface-Atmosphere Feedbacks and Holocene Climate Variations in Eastern North America: Linkages, Impacts, and Governing Mechanisms (B. Shuman and P. Bartlein, PIs, \$198,532 Transferred to Univ. Minnesota)	10-2003	4 years	NSF, Earth-System History Program	0
Methods for the interpolation of base-line climate data to regular grids or arbitrary point locations	8-2004	1 year	USDI, U.S. Geological Survey	9,724
Collaborative Research: Project PALEOVAR—Past Climatic variability: understanding mechanisms and interactions with the mean state	6-2006	5 years	NSF, Paleoclimatology	438,803
Collaborative Research: Holocene Fire-Climate Linkages In Southern South America: Explaining Regional Responses To Large-scale Climate Forcing	9-2007	3 yrs	NSF, Paleoclimatology	160,305

Doctoral Dissertation Research: Global Fire Since the Last Glacial Maximum	6-2007	1.5 yrs	NSF, Geography and Regional Science Program	7,585
Assessing and Visualizing the Effects of Past and Future Climate Change on Species and Ecosystems	8-2010	2 yr	U.S. Geological Survey	259,464
Doctoral Dissertation Research: A Hierarchical Modeling Approach to Simulating the Geomorphic Response of River Systems to Environmental Change	8-2012	2 yr	NSF, Geography and Spatial Sciences Program	13,726
Climate Change Effects on Ecosystems: Analysis of Simulated Climate Change Impacts on Ecosystems in the Western US	5-2014	1 yr	USGS, subcontract from OSU	28,440
Collaborative Research: Testing hypotheses about human and climate impacts on fire over the past millennium using paleodata syntheses and global fire modeling	9-2014	3 yrs	NSF, Geography and Spatial Sciences	27,370
Total External Funding				\$3,649,914