

JENNIFER R. MARLON

Associate Research Scientist

Yale School of Forestry and Environmental Studies

195 Prospect Street
New Haven, CT 06511 USA

Email: jennifer.marlon@yale.edu
Phone: 203-623-7108

EDUCATION

- 2009 Ph.D., Geography, University of Oregon
The geography of fire: A global paleo perspective
- 2003 M.S., Geography, University of Oregon
- 1991 B.S., University at Albany, State University of New York

PROFESSIONAL EXPERIENCE

- 2012 – present Associate Research Scientist, School of Forestry & Environmental Studies, Yale University, New Haven, CT
- 2012 – present Postdoctoral Research Associate, Botany, University of Wyoming, Laramie, WY
- 2010 – 2012 NSF Earth Sciences Postdoctoral Research Fellow, Dept. of Geography, University of Wisconsin-Madison, WI
- 2009 – 2010 Postdoctoral Research Associate, Dept. of Political Science, University of Oregon, OR
- 2005 – 2008 Research Assistant, Dept. of Political Science, University of Oregon, OR
- 2003 – 2004 Research Assistant, Dept. of Geography, University of Oregon, OR
- 2002 GIS Analyst, Benton County Community Development Program, Corvallis, OR
- 2000 – 2001 Instructor, Introduction to GIS, Dept. of Geography, University of Oregon

RESEARCH GRANTS & AWARDS

- 2013-2016 NSF Co-P.I. Award: "*Collaborative Research and NEON: MSB Category 2: PaleON – a PaleoEcological Observatory Network to assess terrestrial ecosystem models*" (\$98,897)
- 2010-2012 NSF EAR Postdoctoral Fellowship Award: "*Understanding the coupled response of vegetation and fire to climatic variation since the Last Glacial Maximum*" (\$170,000)
- 2008 University of Oregon Doctoral Research Fellowship: "*Fires of the past: syntheses from sedimentary charcoal data*" (\$18,000)
- 2008 University Scholarship (\$1800)
- 2007-2008 National Science Foundation: Doctoral Dissertation Improvement Grant: "*Global fire since the Last Glacial Maximum*" (\$7585)
- 2007 National Science Foundation travel award for early-career scientists to attend the XVII INQUA Congress, Cairns, Australia (\$2300)
- 2007 Department of Geography Summer Field Work Scholarship (\$500)
- 2005-2006 University Scholarship (\$1800)
- 2004 AAG Biogeography Specialty Group Award: Best Ph.D. Paper/Poster (\$100)
- 2004 Department of Geography Travel Award (\$500)
- 2002-2003 University Scholarship (\$1500)
- 2001-2002 University Scholarship (\$2800)
- 2001 Department of Geography Travel Award (\$500)

PEER-REVIEWED PUBLICATIONS

20. Quintana Krupinski, N.B., **Marlon, J.R.**, Nishri, A., Street, J.H., Paytan, A., Climatic and human controls on the late Holocene fire history of northern Israel (in press).

19. Zennaro, P., Natalie Kehrwald, N., McConnell, J.R., Schüpbach, S., Maselli, O., **Marlon, J.R.**, Vallelonga, P., Leuenberger, D., Zangrando, R., Spolao, A., Borrotti, M., Barbaro, E., Gambaro, A., Barbante, C. Fire in ice: Two millennia of Northern Hemisphere fire history from the Greenland NEEM ice core (in review). *Quaternary Research*.
18. McLauchlan, K.K., Higuera, P.E., Gavin, D.G., Perakis, S.P., Mack, M.M., Alexander, H., Battles, J., Biondi, F., Buma, B., Colombaroli, D., Enders, S., Engstrom, D.R., Hu, F.S., **Marlon, J.R.**, Marshall, J., McGlone, M., Morris, J., Nave, L., Shuman, B., Smithwick, E., Urrego, D., Wardle, D., Williams, C., Williams, J.J. (in review). Reconstructing disturbances and their biogeochemical consequences over multiple timescales. *Bioscience*.
17. Daniau, A-L., Sánchez Goñi, M.F., Martinez, P., Urrego, D.H., Bout-Roumazielles, V., Desprat, S., **Marlon, J.R.** (2013). Orbital-scale climate forcing of grassland burning in southern Africa. *Proceedings of the National Academy of Sciences* **110**(13) doi: 10.1073/pnas.1214292110.
16. **Marlon, J.R.**, Bartlein, P.J., Daniau, A-L., Harrison, S.P., Power, M.J., Tinner, W., Tracy, S. Global biomass burning: A synthesis and review of Holocene paleofire records and their controls (2013). *Quaternary Science Reviews* **65**, 5-25.
15. Han, Y.M., **Marlon, J.R.**, Cao, J.J., Jin, Z.D., An, Z.S. Synchronous variations in soot, char and climate in Asia. (2012). *Global Biogeochemical Cycles* **26**(4) DOI: 10.1029/2011GB004197.
14. Boslough, M. Nicoll, K., Holliday, V., Daulton, T.L., Meltzer, D., Pinter, N., Scott, A.C., Surovell, T., Claeys, Ph., Gill, J., Paquay, F., **Marlon, J.**, Bartlein, P., Whitlock, C., Grayson, D., Jull, T. (2012). Arguments and Evidence against a Younger Dryas Impact Event. In: Giosan, L., Clift, P., Fuller, D., Flad, R., and Nicoll, K. (eds.) 2012 in press. *Climates, Past Landscapes, and Civilizations*, AGU Geophysical Monograph Series, Proceedings of the AGU Chapman Conference on Climates, Past Landscapes, and Civilizations, Santa Fe, NM, 21-25 March, 2011. doi:10.1029/2012GM001209.
13. Goring, S., Williams, J.W., Blois, J.L., Jackson, S.T., Paciorek, C., Booth, R.K., **Marlon, J.R.**, Blaauw, M., Christen, A. (2012). Deposition times in the northeastern United States during the Holocene: establishing valid priors for Bayesian age models. *Quaternary Science Reviews* **48**, 54-60.
12. **Marlon, J.R.**, Bartlein, P.J., Long, C., Gavin, D.G., Anderson, R.S., Briles, C. Brown, K.J., Colombaroli, D., Hallett, D.J., Power, M.J., Scharf, E.A., Walsh, M.K. A long-term perspective on wildfires in the western U.S. (2012). *Proceedings of the National Academy of Sciences*, www.pnas.org/cgi/doi/10.1073/pnas.1112839109.
11. Power, M.J., Mayle, F., Bartlein, P.J., **Marlon, J.R.**, Anderson, R.S., Behling, H., Brown, K.J., Carcaillet, C., Colombaroli, D., Gavin, D.G., Hallett, D.J., Horn, S.P., Kennedy, L.M., Lane, C., Long, C., Moreno, P.I., Paitre, C., Robinson, G., Taylor, Z., Walsh, M. Biomass burning decline in the Americas after 1500 AD: population collapse or climate change? (2012). *The Holocene*. DOI: 10.1177/0959683612450196.
10. Daniau, A.-L., Bartlein, P.J., Harrison, S.P., Prentice, I.C., Brewer, S., Friedlingstein, P., Harrison-Prentice, T.I., Inoue, J., **Marlon, J.R.**, Mooney, S., Power, M.J., Stevenson, J., Tinner, W., Andrič, M., Atanassova, J., Behling, H., Black, M., Blarquez, O., Brown, K.J., Carcaillet, C., Colhoun, E.A., Colombaroli, D., Davis, B.A.S., D'Costa, D., Dodson, J., Dupont, L., Eshetu, A., Gavin, D.G., Genries, A., Gebru, T., Haberle, S., Hallett, D.J., Horn, S., Hope, G., Katamura, F., Kennedy, L., Kershaw, P., Krivonogov, S., Long, C., Magri, D., Marinova, E., McKenzie, G.M., Moreno, P.I., Moss, P., Neumann, F.H., Norström, E., Paitre, C., Rius, D., Roberts, N., Robinson, G., Sasaki, N., Scott, L., Takahara, H., Terwilliger, V., Thevenon, F., Turner, R.B., Valsecchi, V.G., Vannièrè, B., Walsh, M., Williams, N., Zhang, Y. Predictability of biomass burning in response to climate changes (in press). *Global Biogeochemical Cycles*.
9. Harrison, S.P., **Marlon, J.R.** and Bartlein, P.J. (2010). Fire in the Earth system. In "Changing Climates, Earth Systems and Society." (J. Dodson, Ed.). International Year of Planet Earth. Springer, Dordrecht, The Netherlands.

8. 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. *Paleogeography, Paleoclimatology, Paleoecology* **291**(1), 52-59.
7. **Marlon, J.R.**, Bartlein, P.J., Walsh, M.K., Harrison, S.P., Brown, K.J., Edwards, M.E., Higuera, P.E., Power, M.J., Anderson, R.S., Briles, C., Brunelle, A., Carcaillet, C., Daniels, M., Hu, F.S., Lavoie, M., Long, C., Minckley, T., Richard, P.J.H., Shafer, D.S., Tinner, W., Umbanhowar, C.E. Jr. Wildfire responses to abrupt climate change in North America (2009). *Proceedings of the National Academy of Sciences* **106**(8) 2519-2524.
6. **Marlon, J.R.**, Bartlein, P.J., Carcaillet, C., Gavin, D.G., Harrison, S.P., Higuera, P.E., Joos, F., Power, M.J., Prentice, I.C. (2008) Climate and human influences on global biomass burning over the past two millennia. *Nature Geoscience*. DOI:10.1038/ngeo313.
5. Power, M.J., **Marlon, J.**, Ortiz, N., Bartlein, P.J., Harrison, S.P., Mayle, F.E., Ballouche, A., Bradshaw, R., Carcaillet, C., Cordova, C., Mooney, S., Moreno, P., Prentice, I.C., Thonicke, K., Tinner, W., Whitlock, C., Zhang, Y., Zhao, Y., Anderson, R.S., Beer, R., Behling, H., Briles, C., Brown, K.J., Brunelle A, Bush, M., Camill, P, Chu, G.Q., Clark, J., Colombaroli, D., Connor, S., Daniels, M., Daniau, A.-L., Dodson, J., Doughty, E., Edwards, M.E., Fisinger, W., Foster, D., Frechette J., Gaillard, M.-J., Gil-Romera, G. Gavin, D.G., Gobet, E., Haberle, S., Hallett, D.J., Higuera, P., Hope, G., Horn, S., Impagliazzo, S., Inoue, J., Kaltenrieder, P., Kennedy, L., Kong, Z.C., Larsen, C., Long, C.J., Lynch, J., Lynch, B., McGlone, M., Meeks, S., Mensing, S., Meyer, G., Minckley, T., Mohr, J., Nelson, D., New, J., Newnham, R., Noti, R., Oswald, W., Pierce, J., Richard, P.J.H., Rowe, C., Sanchez Goñi, M.F., Shuman, B.J., Takahara, H., Toney, J., Turney, C., Umbanhowar, C., Vandergoes, M., Vanniene, B., Vescovi, E., Walsh, M., Wang, X., Williams, N., Wilmschurst, J., Zhang, J.H. (2008). Changes in fire regimes since the Last Glacial Maximum: an assessment based on a global synthesis and analysis of charcoal data. *Climate Dynamics* **30**, 887-987. DOI: 10.1007/s00382-007-0334-x.
4. Whitlock, C., **Marlon, J.**, Briles, C., Brunelle, A., Long, C., Bartlein, P.J. (2008). Long-term relations between fire, fuel, and climate in the northwestern U.S. *International Journal of Wildland Fire*, **17**(1) 72–83.
3. Whitlock, C., Bianchi, M.M., Bartlein, P.J., **Marlon, J.**, Walsh, M., and McCoy, N. (2006). Postglacial vegetation, climate, and fire history along the east side of the Andes (lat 41-42 S), Argentina. *Quaternary Research*, **66**(2), 187-201.
2. **Marlon, J.**, Bartlein, P.J., and Whitlock, C. (2006). Fire-fuel-climate linkages in the northwestern United States during the Holocene. *The Holocene* **16**(8), 1059-1071.
1. Whitlock, C., Shafer, S.L., and **Marlon, J.** (2003). The role of climate and vegetation change in shaping past and future fire regimes in the northwestern U.S. and the implications for ecosystem management. *Forest Ecology and Management* **178**, 5-21.

OTHER PUBLICATIONS

- Marlon, J.R.**, Leiserowitz, A., and Feinberg, G. (2013) Scientific and Public Perspectives on Climate Change. Yale University. New Haven, CT: Yale Project on Climate Change Communication. <http://environment.yale.edu/climate/notes/consensus.html>.
- Kehrwald, N.M., Whitlock, C., Barbante, C., Brovkin, V., Daniau, A-L., Kaplan, J.O., **Marlon, J.R.**, Power, M.J., Thonicke, K., van der Werf, G.R. (in review). Recent wildfires fuel advancements in fire research. *EOS*.
- Gill, J.L., Blois, J.L., Goring, S., **Marlon, J.R.**, Bartlein, P.J., Nicoll, K., Scott, A.C., Whitlock, C., (2012) Paleocological changes at Lake Cuitzeo were not consistent with an extraterrestrial impact. *Proceedings of the National Academy of Sciences*, 109 (34):E2243-E2243; 10.1073/pnas.1206196109 AUG 21 2012.
- LeDee, O.E., Barnes, R.T., Emanuel, R., Fisher, P.B., Henkel, S.K., **Marlon, J.R.** Training a “New Scientist” to Meet the Challenges of a Changing Environment. (2011) *EOS*.
- Marlon, J.R.**, Cui, Q., Gaillard, M.-J., McWethy, D., Walsh, M.K. (2010). Humans and fire: Consequences of anthropogenic burning during the past 2 ka. *PAGES news* **18**(2) 80-82.

- Leiserowitz, A., Smith, N., **Marlon, J.R.** (2011). American Teens' Knowledge of Climate Change. Yale University. New Haven, CT: Yale Project on Climate Change Communication.
<http://environment.yale.edu/climate/news/american-teens-knowledge-of-climate-change/>
- Marlon, J.R.**, Bartlein, P.J. (2010). Towards multiple working hypotheses. *Current Anthropology*.
- Leiserowitz, A., Smith, N., **Marlon, J.R.** (2010). Americans' Knowledge of Climate Change. Yale University. New Haven, CT: Yale Project on Climate Change Communication.
<http://environment.yale.edu/climate/files/ClimateChangeKnowledge2010.pdf>
- Marlon, J.R.**, Patenaude, G., Barnes, B. (2010). Catalyzing interdisciplinary research on climate change. *EOS* **91**(34) 299.
- Weiler, C.S., Mitchell, R. and **Marlon, J.** (2009). DISCCRS IV Symposium Report. Online:
http://www.disccrs.org/reports/DISCCRS_IV_Symposium_Report.pdf
- Power, M.J., **Marlon, J.**, Bartlein, P.J., and Harrison, S.P. (2008). Fire in the Earth system: The Global Palaeofire Working Group. Totnes, UK, 22-26 October 2007. Workshop Report. PAGES News **16**(1), 39-40.
- Marlon, J.** (2003). A meta-analysis of charcoal-based fire history records from the northwestern United States. Thesis, University of Oregon, Eugene, Oregon.
- Whitlock, C., Mohr, J., Minckley, T., and **Marlon, J.** (2001). Holocene vegetation and fire history from Cedar Lake, northern California. A Final Report for Cooperative Agreement USFS PSW-99-0010CA, Pacific Southwest Research Station, USDA Forest Service, CA.

INVITED PRESENTATIONS

- 2013 "Climate Change in the American Mind," Peabody Museum Teacher Institute, New Haven, CT
- 2012 "The Global Charcoal Database: Reconstructing Fire From Mud," Paleofire Workshop, Venice, Italy
- 2012 "The Limits of Experience in Predicting Climate Change Risk Perceptions," Yale Project on Climate Change Communication (YPCCC) Project Meeting, Washington, DC
- 2012 "Fire History of the Western United States," NSF PROBE Research Coordination Network, Manhattan, KS, USA
- 2012 "Regional to Global-scale Trends in Fire: A Long-term Perspective," Department of Geography, University of Toronto, Canada
- 2011 "The Geography of Fire: A Global Paleo Perspective," Department of Earth & Environmental Sciences, Lehigh University, PA, USA
- 2011 "Biomass Burning During the Last Millennium," PalaeoCarbon Modeling Intercomparison (PCMIP) Workshop, Sydney, Australia
- 2011 "Sustainable Fire Regimes: Lessons from Paleofire Records," Pyrogeography Working Group 4: Towards Sustainable Fire Regimes, NCEAS, Santa Barbara, CA, USA
- 2011 "Reconstructing Fire From Sedimentary Charcoal Records," Institute for the Earth Environment, Xi'an, China
- 2011 International Union for Quaternary Research, Bern, Switzerland
- 2009 "Global Fire History Since the Last Glacial Maximum," Yale Institute for Biospheric Studies, New Haven, CT, USA
- 2009 "The Geography of Fire," Brown University, Geological Sciences Department, Providence, RI, USA
- 2009 "Climate and Human Impacts on Biomass Burning During Past Millennia," Past Global Changes (PAGES) Open Science Meeting, Corvallis, OR, USA
- 2008 "Global Fire History During the Past 21,000 Years," Paleoclimate Modelling Intercomparison Project Phase II Workshop, Estes Park, CO, USA
- 2007 "The Long-term Fire History of North America," Brown University, Providence, RI, USA
- 2005 "The Fire History of the Pacific Northwest," Fire History & Climate Synthesis in the Western United States, Flagstaff, AZ, USA

CONTRIBUTED PRESENTATIONS

- 2011 American Association of Geographers annual conference, Seattle, WA (presentation)
2011 European Geophysical Union annual conference, Vienna, Austria (presentation)
2010 Ecological Society of America annual conference, Pittsburgh, PA (presentation)
2010 American Association of Geographers annual conference, Washington, DC (presentation)
2009 American Geophysical Union annual conference, San Francisco, CA (poster)
2009 Association of American Geographers annual conference, Las Vegas, NV (presentation)
2008 International Association of Wildland Fire annual conference, Jackson Hole, WY (presentation)
2008 Association of American Geographers annual conference, Boston, MA (presentation)
2007 Dissertations Initiative for the Advancement of Climate Change Research, Volcanoes, Hawaii
2007 XVII International Quaternary Association Congress, Cairns, Australia (presentation)
2007 Association of American Geographers annual conference, San Francisco, CA (presentation)
2006 American Geophysical Union annual conference, San Francisco, CA (poster)
2006 Association of Pacific Coast Geographers, Eugene, Oregon (presentation)
2006 XIX American Quaternary Association, Bozeman, Montana (presentation)
2005 Ecological Society of America annual conference, Montreal, Canada (presentation)
2004 American Geophysical Union annual conference, San Francisco, CA (poster)
2004 American Association of Geographers annual conference, Philadelphia, PA (poster)

TEACHING EXPERIENCE

- Summer 2009 Quaternary Ecosystem Science Training International Group, Franche-Comté, France
Summer 2006 Co-instructor: Introduction to Physical Geography, University of Oregon
2006 Guest Lecturer: Paleoclimatology & Global Warming, University of Oregon
2006 Guest Lecturer: Advanced Data Analysis – Data Displays, University of Oregon
2005 Guest Lecturer: Advanced Data Analysis – Regression, University of Oregon
2002 Guest Lecturer: How Fire Shapes the Distribution of Species, University of Oregon
Summer 2002 Instructor: Introduction to Geographic Information Systems, University of Oregon
Summer 2001 Instructor: Introduction to Geographic Information Systems, University of Oregon
2000 – 2001 Graduate Teaching Fellow for five classes including Geographic Data Analysis, Climatology, Geomorphology, Geographic Information Systems and Biogeography, University of Oregon

PROFESSIONAL SERVICE

- 2013 *Session Co-Convener*: PAGES Open Science Meeting, Goa, India
2012-present Chair, Early Career Research (ECR) Committee of the International Union for Quaternary Research (INQUA)
2011-present Co-Secretary, Palaeoclimate Commission (PALCOMM) of INQUA
2010-2012 Secretary, Paleocology Section, Ecological Society of America
2009-present Created and maintained websites for DISCCRS (disscrs.org), (gpwg.org), INQUA PALCOMM, INQUA ECR
2009-present Proposal Reviewer: *National Science Foundation, National Geographic*
2009-present Application reviewer: DISCCRS symposia
2009-present Manuscript reviewer for 13 journals: *Annals of the Association of American Geographers, Ecography, Forest Ecology and Management, Global Ecology and Biogeography, Geophysical Research Letters, Journal of Biogeography, Journal of Ecology, Journal of Quaternary Science, Journal of Vegetation Science, Palaeogeography, Palaeoclimatology, Palaeoecology, Proceedings of the National Academy of Science, Quaternary Research, Quaternary Science Reviews*
2008 *Session Organizer and Chair*: “Succeeding as a Biogeographer,” AAG, Boston, MA
2007 Graduate Student Representative: AAG Biogeography Specialty Group
2006-present IGBP – PAGES Global Palaeofire Working Group (GPWG) Steering committee

SYNERGISTIC ACTIVITIES

- 2013 Palaeofire Working Group Coordination Meeting, University of Utah, UT, May 13-17
2012 Scientific Leadership & Management Course, Yale University, CT
2012 PROBE Research Coordination Network: The Novus project for integrating paleo- and
neocosystem ecology - workshop and network participant, Manhattan, KS
2012 *Session Organizer and Chair*: Fire, Humans and Climate: Untangling Relationships, Causes and
Consequences, Association of American Geographers, New York, NY
2011- present Yale Project on Climate Change Communication - network and workshop participant, CT
2011 Pyrogeography Working Group 4: Towards Sustainable Fire Regimes (NCEAS) - workshop
participant, Santa Barbara, CA
2011 PaleoEcological Observatory Network to assess terrestrial ecosystem models (PaleON) - workshop
and network participant, Chicago, IL
2011 Neotoma Paleoecological Database - workshop and network participant, Madison, WI
2009 - present Dissertations Initiative for the Advancement of Climate Change Research (DISCCRS) – organizer
2008 - present Global Palaeofire Working Group (GPWG) - founding member, steering committee

PROFESSIONAL MEMBERSHIPS

Association of American Geographers (AAG)
American Geophysical Union (AGU)
American Meteorological Society (AMS)
American Quaternary Association (AMQUA)
Ecological Society of America (ESA)
Gamma Theta Upsilon International Geographical Honor Society
International Union for Quaternary Research (INQUA)