

## Mitchell J. Power

### CONTACT INFORMATION

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[http://www.bridge.bris.ac.uk/projects/QUEST\\_IGBP\\_Global\\_Palaeofire\\_WG](http://www.bridge.bris.ac.uk/projects/QUEST_IGBP_Global_Palaeofire_WG)

### PERSONAL DATA

Date of Birth: May 11, 1970 (Portland, ME); Married (Alicia M. Power); Citizenship: USA

### EDUCATION

University of Maine, Orono (Anthropology) B.A. December 1992  
Northern Arizona University, Flagstaff (Quaternary Studies Program) M.S. May 1998  
University of Oregon, Eugene (Geography) Ph.D. August 2006

### RESEARCH INTERESTS

Historical Biogeography, Fire, Paleoecology, Paleoclimatology

### TEACHING INTERESTS

Biogeography, Environmental Change, Climatology

### EMPLOYMENT HISTORY

2006-present University of Edinburgh *Postdoctoral Research Associate*, QUEST-Deglaciation creation of the Global Charcoal Database, co-leader of Global Palaeofire Working Group  
2006 *Instructor*, University of Oregon, [Geog323] Biogeography (Spring term)  
2006 *Research Assistant*, University of Oregon, field and lab research, fire history investigations in Yellowstone National Park, January-April  
2005 *Instructor*, University of Oregon, [Geog323] Biogeography (Spring and Summer terms), [Geog410] Paleoenvironments of Oregon (September), [Geog 431/531] Ecosystem Dynamics and Vegetation History (Fall)  
2004 *Research Assistant*, University of Oregon, fire history investigations in Yellowstone National Park (Fall)  
2004 *Instructor*, University of Oregon, [Geog323] Biogeography (Spring term), Geography of Oregon [Geog206] (September Experience)  
2003 *Instructor*, University of Oregon, [Geog323] Biogeography (Spring term), Geography of Oregon [Geog206] (September Experience)  
2002 *Instructor*, University of Oregon, [Geog141] Introduction to Physical Geography (Summer)  
2001-2003 *Research Assistant*, University of Oregon, investigations on "Early versus Late Holocene Drought in the Northern Rocky Mountains", NSF proposal no. ATM-9905262  
1999-2001 *Teaching assistant*, University of Oregon, Department of Geography courses: [Geog143] The Natural Environment, [Geog141] Global Environmental Change, and [Geog323] Biogeography  
1999 *Pollen Analyst*, Northern Arizona University, paleoenvironmental and fire history of Point Reyes National Seashore, Wildcat Lake, Point Reyes, California

- 1998 *Diatom Analyst*, Northern Arizona University, paleoenvironmental analysis of East Dam ancient pond deposits, Eastside Reservoir Project, Diamond and Domenigoni Valleys, Riverside County, California
- 1997-1998 *Teaching Assistant*, Northern Arizona University, Center for Environmental Sciences and Education: *Instructor* for two lab sections, [ENV101] Environmental Science 101, (Fall and Spring)
- 1996 *Teaching Assistant* at Northern Arizona University for Center for Environmental Sciences and Education: *Instructor* for field-based lab sections for introductory and 3rd-year courses in Ecology [ENV101; ENV180; ENV370]
- 1996 *Archaeological Field Assistant*, Rumford Falls Project, Rumford, Maine. Phase III archaeological excavations at prehistoric site ME 49-28
- 1995 *Teaching & Research Assistant*, Northern Arizona University, Center for Environmental Sciences and Education: *Instructor* for lab sections, [Env101] Environmental Science and researcher for Laboratory of Paleocology, analysis of plant macrofossils
- 1994 *Site Supervisor*, Lake Ilo Archaeological Project: Joint project between Northern Arizona University & University of North Dakota. Paleo-Indian excavations located in Killdeer, North Dakota.
- 1993 *Field Assistant*, University of Southern Maine archaeological excavations at Loring Air Force Base CRM, Caribou, Maine: Phase I
- 1992 *Field and Lab Assistant*, University of Southern Maine archaeological excavations at: Gilman Falls, Old Town; Eddington Bend; Mosher Island Prehistoric Burial Site
- 1991 *Field and Lab Supervisor*, Environmental Archaeology Field School, University of Southern Maine: Basin Site, Phippsburg, Maine, Test Pit & Test Unit excavations
- 1991 *Assistant Supervisor* for Maine Audubon Society and the University of Southern Maine: Archaeological research on Mosher Island excavations
- 1991 *Field and Lab Assistant*, University of Southern Maine archaeological excavations in Fryeberg, Maine and in Norridgewock, Maine: Phase I Survey & archaeological excavations
- 1990 *Field and Lab Assistant*, University of Maine, Orono, Archaeology lab: archaeological investigations at Gilman Falls, Old Town; analysis of lithic material from the Hirundo Site, Hirundo
- 1990 *Field Assistant*, University of Southern Maine archaeological investigations at: Cold Water Farms, Kennebunk; Durham Boat Landing, Durham: Phase I Survey & archaeological excavations funded by Central Maine Power Company
- 1990 *Summer Field School Assistant*, University of Southern Maine Environmental Archaeology Field School, archaeological excavations and vibracoring of beach sediments at the Basin Site, Phippsburg, Maine
- 1989 *Field Assistant*, University of Southern Maine archaeological investigations at Rumford Falls, Rumford, Maine

#### GRANTS, CONTRACTS, AND AWARDS

- 2007 Quantifying and Understanding the Earth System (QUEST) Sponsorship for the Global Palaeofire Working Group workshop (£10,000.00)
- 2007 Past Global Changes Program (PAGES), Sponsorship for the Global Palaeofire Working Group workshop (\$6000.00)
- 2007 Integrated Land Ecosystem – Atmosphere Processes Study (iLEAPS), a core project of the IGBP, Sponsorship for the Global Palaeofire Working Group workshop (€1500.00)

- 2006 United States Geological Survey (USGS) Paleocological investigations in Yellowstone National Park (\$2516.00)
- 2005 Finalist for University of Oregon Doctoral Research Fellowship, Geography Department
- 2004 17<sup>th</sup> Biennial American Quaternary Association (AMQUA) meeting, Anchorage, Alaska travel award (\$600.00)
- 2002 16<sup>th</sup> Biennial American Quaternary Association (AMQUA) meeting, Fayetteville, Arkansas, travel award (\$545.02)
- 2001 University of Oregon, Summer Research Grant for field work (\$483.00)
- 1998 Participant, Pole-Equator-Pole (PEP-I), Paleoclimate of the Americas. Merida, Venezuela, March 16-23
- 1996 Fieldtrip Assistant, 14<sup>th</sup> Biennial American Quaternary Association (AMQUA) meeting, Paleocology of the Verde Valley and Mojave Desert May 20-28
- 1996 13<sup>th</sup> Annual Pacific Climate (PACLIM) Workshop, Extreme Events and Uncommon Episodes, April 14-17, Asilomar Conference Center, travel award (\$600.00)

## PUBLICATIONS

- Mayle FE, and **Power, MJ** (*in review*) Impact of a drier early-mid Holocene climate upon Amazonian forests. *Philosophical Transactions of the Royal Society*.
- Power MJ**, Marlon J, Ortiz N, Bartlein PJ, Harrison SP, Mayle FE, Ballouche A, Bradshaw RH, Carcaillet C, Cordova C, Mooney S, Moreno P, Prentice IC, Thonicke K, Tinner W, Whitlock C, Zhang Y, Zhao Y, Ali AA, Anderson RS, Beer R, Behling H, Briles C, Brown KJ, Brunelle A, Bush M, Camill P, Chu GQ, Clark J, Colombaroli D, Connor S, Daniau A-L, Daniels M, Dodson J, Doughty E, Edwards ME, Finsinger W, Foster D, Frechette J, Gaillard M-J, Gavin DG, Gobet E, Haberle S, Hallett DJ, Higuera P, Hope G, Horn S, Inoue J, Kaltenrieder P, Kennedy L, Kong ZC, Larsen C, Long CJ, Lynch J, Lynch EA, McGlone M, Meeks S, Mensing S, Meyer G, Minckley T, Mohr J, Nelson DM, New J, Newnham R, Noti R, Oswald W, Pierce J, Richard PJH, Rowe C, Sanchez Goñi MF, Shuman BJ, Takahara H, Toney J, Turney C, Urrego-Sanchez DH, Umbanhowar C, Vandergoes M, Vanniere B, Vescovi E, Walsh M, Wang X, Williams N, Wilmshurst J, Zhang JH (*in press*) Changes in fire regime since the Last Glacial Maximum: an assessment based on a global synthesis and analysis of charcoal data. *Climate Dynamics*. XX:XX-XX.
- Whitlock C, Dean W, Rosenbaum J, Stevens L, Fritz S, Bracht B, **Power MJ** (*in press*) A 2650-year-long record of environmental change from northern Yellowstone National Park based on a comparison of multiple proxy data. *Quaternary International*, XX:XX-XX
- Harrison SP, **Power MJ**, Bond W (2007) Palaeofires in the Earth system. *iLEAPS Newsletter* 4:8-11. [<http://www.atm.helsinki.fi/ILEAPS/index.php?page=default>]
- Power MJ**, Bartlein, PJ, Shafer, S, and N. Kohler (*in prep*) 20<sup>th</sup> Century fire-climate linkages in the Northern Rocky Mountains, USA.
- Power MJ**, Whitlock C, Bartlein PJ (*in prep*) Postglacial fire, vegetation, and climate history across an elevational gradient in the Northern Rocky Mountains, USA.
- Power MJ**, Anderson RS (*in prep*) Fire, vegetation, and climate history in the upper montane forests, Sierra Nevada, California.
- Power MJ**, Whitlock C, Bartlein PJ, Stevens L (2006). Fire and vegetation history during the last 3800 years in northwestern Montana. *Geomorphology*, 75:420-436.

- Power MJ** (2006) Recent and Holocene fire, climate, and vegetation linkages in the Northern Rocky Mountains, USA., PhD dissertation, Department of Geography, University of Oregon, Eugene, Oregon: 240 pp.
- Anderson RS, **Power, MJ**, Smith SJ, Springer K, Scott E (2002). Paleocology of MIS-3 Pond Deposits from Riverside County, Southwestern California. *Quaternary Research*, vol. **58**(3):310-317.
- Power, MJ** (1998) Paleoclimatic Interpretation of an Alpine Lake in the South Central Sierra Nevada, California: Multiple Proxy Evidence. Masters Thesis, Quaternary Studies Program, Northern Arizona University, Flagstaff, Arizona: 93 pp.
- Mosher J, Bennet T, **Power MJ**, Hamilton N (1991) Phase I Archaeological Survey for the Proposed GWEN CGS-8 Site, Fryeberg, Maine. A Final Report prepared by the ARU for SRI International, Menlo Park, California, June (OSR 6-6-46198).
- Mosher J, Bennet T, **Power MJ**, Hamilton N (1991). Phase I Archaeological Survey of the Proposed Norridgewock Wastewater Treatment Facility, Cross Country Gravity Feeder, and Pump Station Sites, Norridgewock, Maine. A final report prepared for Woodard & Curran, Inc., Westbrook, Maine: June (OSR 6-6-46199).

#### INVITED LECTURES (\*forthcoming)

- \*Internal Geosphere Biosphere Program (IGBP) 4<sup>th</sup> International Congress, Cape Town, South Africa (May 2008)
- \*Vegetation on Fire History & Actuality workshop, Besançon, France (January 2008)
- \*Oxford University, Jesuit College, Department of Geography Guest Seminar Series (November 2007)
- International Quaternary Association XXI (INQUA): Fire Session, Fire regimes since the last glacial maximum, Cairns, Australia (August 2007)
- Oxford, Quantifying and Understanding Earth Systems (QUEST) Open Science Conference, Oxford, UK (March 2007)
- Quantifying and Understanding Earth Systems (QUEST) “Kickoff meeting”, University of Bristol, UK – Fire-climate linkages and prospects for global palaeofire data-model comparison (October 2006)
- Fire History and Climate Synthesis in Western North America – Fire, climate, and vegetation history in the Northern Rocky Mountains during the last 13,000 years - Workshop, Flagstaff, Arizona (May 2005)

#### PAPER/POSTER PRESENTATIONS

- Power MJ**, Marlon J, Bartlein PJ, Mayle F, Ortiz N, Harrison S, IGBP FTI Participants. International Quaternary Association XVII, Cairns, Australia, (2007) How do differences in charcoal quantification, basin type, and fuel characteristics affect charcoal records? (poster)
- Power MJ**, Bartlein PJ, Harrison S, Marlon J, Mayle F, Ortiz N, Thonicke K, Paleofire FTI Workshop Participants, University of Leeds, British Tropical Ecology Group (2007) Fire activity in tropical ecosystems since the Last Glacial Maximum: an assessment based on syntheses and analyses of charcoal data (paper)
- Marlon J, **Power, MJ**, Thonicke, K, & IGBP Palaeofire FTI Participants (2006) Global Paleofire History Since the Last Glacial Maximum: Syntheses and Data-Model Comparison. American Geophysical Union (poster).
- Marlon J, **Power, MJ**, Bartlein, PJ, Whitlock, C, (2006). Meta-Analyses of Paleofire Records

- at Multiple Scales. American Quaternary Association 19<sup>th</sup> biannual meeting, Bozeman, Montana (poster)
- Whitlock, C, Fritz, S, Bracht, B, Stevens, L, **Power, MJ**, Dean, W, and J Rosenbuam: 19<sup>th</sup> annual American Quaternary Association (poster)
- Whitlock, C, Fritz, S, Bracht, B., Stevens, L, **Power, MJ**, Dean, W, and J Rosenbuam (2006). The last 2650 years in Northern Yellowstone National Park based on multi proxy data from Crevice Lake. PACLIM XX, March 26-29, Asilomar, California (poster)
- Power MJ**, Bartlein PJ, Whitlock C (2005). 20<sup>th</sup> Century Fire-Climate Linkages in the Northern Rocky Mountains. MTNCLIM: Consortium for Integrated Climate Research in Western Mountains. Chico Hot Springs, Prey, Montana, March 1-4. (poster)
- Power MJ**, Whitlock C, Bartlein PJ (2004) Fire-Climate Linkages in the Northern Rocky Mountains during the Holocene, American Geophysical Union, San Francisco, CA, Dec 13-17. (poster)
- Power MJ**, Whitlock C, Bartlein PJ (2004) A Comparison of 20th Century versus Late-Holocene Fire, Vegetation, and Climate Variations in Northwestern Montana . American Association of Geographers, Philadelphia, PN, March 22-23. (paper)
- Power MJ**, Whitlock C, Bartlein PJ (2003) Fire and Vegetation Variations of the Last 4000 years in Northwestern Montana. *Geological Society of America*, Annual Meeting, "Geoscience Horizons", Seattle, Washington, November 2-5. (paper)
- Power MJ**, Stone J, Stevens L, Whitlock C, Fritz S, Bartlein PJ (2002) Calibration of Lake-Sediment Records with 20<sup>th</sup>-Century Hydrologic and Climate Variability in Northwestern Montana. *American Geophysical Union*, "Paleoclimate, Global Change, and the Future" (PP61A), San Francisco, California, December 6-10. (poster)
- Power MJ**, Whitlock C (2002). Vegetation Change, Fire History, and Historic Land-use in the Flathead Valley, Montana. *American Quaternary Association 17<sup>th</sup> Biennial Meeting*, Anchorage, Alaska, August 8-11. (poster)
- Power MJ**, Whitlock C (2002). High-Resolution Record of Fire History and Vegetation Change from the Flathead Valley, Montana. *American Association of Geographers*, Annual Meeting, Las Angeles, California, March. (paper)
- Power MJ**, Whitlock C (2001) A 1800-year record of Fire and Vegetation from Northwestern Montana. PACLIM 18<sup>th</sup> Annual *PACLIM Workshop*, Asilomar State Conference Grounds, Pacific Grove, California. (poster)
- Power MJ**, Anderson RS (2000) A Paleoclimatic Interpretation of East Lake in the southern central Sierra Nevada, CA. *American Quaternary Association 16<sup>th</sup> Biennial Meeting*, Fayetteville, Arkansas, May 22-24. (poster)

TEACHING EXPERIENCE (only last 5 years shown)

- 2006 Biogeography (GEOG 323) Past and present distribution of the world's biota
- 2005 Vegetation History and Ecosystem Dynamics (GEOG431/531) Graduate-level studies on long- term vegetation change and special topics in biogeography
- 2005 Physical Geography of Oregon-Paleoenvironments (GEOG410) Self-designed course on paleoecological field methods (sediment coring, tree coring, and packrat middens)
- 2005 Biogeography (spring & summer courses) (GEOG323) Past and present distribution of the world's biota.
- 2004 Geography of Oregon (GEOG206) Natural and human environments of Oregon.
- 2004 Biogeography (GEOG323) Past and present distribution of the world's biota.
- 2003 Biogeography (GEOG323) Past and present distribution of the world's biota.

2003 Geography of Oregon (GEOG206) Natural and human environments of Oregon  
2002 Natural Environment (GEOG141) Introduction to physical geography.

#### PROFESSIONAL SERVICE

2007 Organizer and Co-leader of the Global Palaeofire Working Group Workshop II, Dartington Hall, UK  
2007 Article reviews for *The Holocene*  
2007 Member of International Union for Quaternary Research (INQUA) Palaeoclimate Commission (PALCOMM)  
2007 Report writing for PAGES and iLEAPS newsletters  
2006-present Creation/Leadership of the Global Palaeofire Working Group (GPWG)  
2005-present Advising undergraduate students on current research projects within the *Environmental Change Research Group* (Univ. Oregon) and *Quaternary Palaeoecology Laboratory* (Univ. Edinburgh)  
2004 Thesis Committee member for Katie Weidman, Environmental Science major and Clark Honors College graduate at the University of Oregon.  
2002 Co-Chair session organizer. Fire-climate Workshop, Tucson Arizona, March  
2000 Faculty Search Committee, graduate student representative, Department of Geography, University of Oregon. Duties included; review applications for tenure-track physical Geographer position, meet with search committee to rank candidates, act as liaison between graduate students and faculty.  
2000-2005 Participation in Geography Awareness Week at the University of Oregon  
2000-present membership activity: American Quaternary Association and American Association of Geographers, Gamma Theta Upsilon Honorary International Geography Society at the University of Oregon, Oregon Geographical Society  
1998-2006 Scientific Illustrations: Environmental Change Research Group logo, Fire-Climate Workshop logo, 2006 American Quaternary Association 20<sup>th</sup> biannual meeting logo

#### PARTICIPATION IN INTERNATIONAL COLLABORATIVE RESEARCH PROGRAMS

2006-present IGBP Fast Track Initiative on Fire  
2006-present Global Palaeofire Working Group co-Leader: correspondence with over 80 international collaborators and/or contributors  
2006-present QUEST-Deglaciation: Climate and biogeochemical cycles during the last deglaciation

#### ACADEMIC EXCHANGE PROGRAMS

Canadian-American Exchange Program; Simon Fraser University, Department of Archaeology, Burnaby, British Columbia, 1990-1991  
German-American Exchange Program; Bonn, West Germany, sponsored by Falmouth High School, June 1987