

CURRICULUM VITAE
GLEN M SPROUL dit MACDONALD*

Department of Geography
University of California, Los Angeles
P.O. Box 951524, Los Angeles, California 90095-1524
Email : glen@geog.ucla.edu

Educational Background

Ph.D.	1984	Toronto	Botany (Geol. Minor)
M.Sc.	1980	Calgary	Geography
B.A. (Hon.)	1978	California, Berkeley	Geography

Thesis Titles

Ph.D., Postglacial Plant Migration and Vegetation Development in the W. Canadian Boreal Forest.
M.Sc., Postglacial Palaeoecology of the Morley Flats and Kananaskis Valley, Southwestern Alberta.
Hon., The Impact of 19th Century Redwood Logging on the Bolinas Lagoon Watershed.

Honors

Fellow of the American Association of Geographers (2020 – Ceremony Deferred Due to COVID-19)
Karl Butzer Award American Association of Geographers (2020)
Fellow of the Royal Society of Canada (2019)
Visiting Global Fellow, University of St Andrews (2019)
Fellow of the American Academy of Arts and Sciences (2016)
Fellow of the American Geophysical Union (2015)
Member of the National Academy of Sciences (2015)
James J. Parsons Distinguished Career Award, Biogeography Specialty Group, AAG (2015)
UCLA Geography John Muir Memorial Chair (2014)
Rockefeller Bellagio Fellowship (2013)
UCLA Distinguished Professor (2011)
UC Presidential Chair (2009)
Visiting Fellow, St. Catherine's College, Oxford (2009)
Guggenheim Fellow (2008-2009)
Fellow of the American Association for the Advancement of Science (2006)
UCLA Friends of Geography Atlas Award (2005)
UCLA Vasa Cube Award for Fiat Lux Seminars (2005)
Discover Magazine Top 100 Science Story in 2005
Cowles Award for Excellence in Publication (AAG) – 2nd time 2004
UCLA Distinguished Teaching Award (2001)
Cowles Award for Excellence in Publication (AAG) – 1st time 1999
University of Helsinki Medal (1995)
Visiting Fellow and Life Member, Clare Hall, Cambridge University (1989)
McMaster University Award for Teaching Excellence (1987)
McMaster Faculty of Science Award for Teaching Excellence (1987)
McMaster Departmental Undergraduate Award for Teaching Excellence (1987)
Graduation with Highest Honors and Distinction, University of California (1978)
Member of University of California Berkeley Honor Student's Society (1976-78)

* In 2018 DNA analysis revealed my biological paternal ancestry to be Sproul.

Named Lectures

AAG Past President's Address (2018)
Miller Lecture, Pennsylvania State University (2015)
American International Landscape Ecology Society Keynote Plenary Lecture (2013)
Comeaux Lecture, Arizona State University (2011)
American Association of Geographers Plenary Lecture (2009)
Haynes Lecture, Texas AM University (2009)
Marshack Lecture, UCLA (2009)
Atwood Lecture, Clark University (2009)
Bjerknes Lecture, University of Bergen, Norway (2008)
Hilldale Distinguished Lecture, University of Wisconsin at Madison (2007)
Mayer Lecture, University of Wisconsin, Milwaukee (2006)
Brown Day Lecture, University of Minnesota (2005)
Astor Visiting Lecturer, Oxford University (2003)

Professional Organizations

American Association for the Advancement of Science
American Geophysical Union
Association of American Geographers
Association of Pacific Coast Geographers
Canadian Association of Geographers
International Biogeographical Society (Founding Treasurer)

Current Status at UCLA

Endowed Chair of California and the American West (Formerly called the John Muir Chair)
Chair UCLA Canadian Studies Program
Director UC White Mountains Research Center
Distinguished Professor – Geography
Distinguished Professor – Ecology and Evolutionary Biology
Distinguished Professor – Institute for the Environment and Sustainability

Employment History

<u>From</u>	<u>To</u>	<u>Employer</u>	<u>Position</u>
2020	2020	UCLA	Co-Vice Chair of Geography
2016	Present	UCLA	Director White Mountain Research Center
2014	Present	UCLA	John Muir Memorial Chair (renamed in 2020)
2013	Present	UCLA	Chair UCLA Canadian Studies
2011	Present	UCLA	Distinguished Professor
2009	2014	UCLA	Presidential Chair
2009	2014	UCLA	Director of the UCLA IoES
2002	2006	UCLA	Chair of Geography
1998	2002	UCLA	Vice Chair of Geography
1995	Present	UCLA	Full Professor
1994	1995	McMaster University	Full Professor
1991	1994	McMaster University	Associate Chair
1988	1995	McMaster University	Associate Professor

1984	1988	McMaster University Assistant Professor
1980	1984	University of Toronto TA/ Graduate Student
1981	1981	Geological Survey of Canada Research Assistant
1980	1980	Geological Survey of Canada Research Assistant
1978	1980	University of Calgary TA/Graduate Student

Areas of Interest

Research: Climate Change, Environmental Change, Environmental Reconstruction, Water Resources, Wetlands, Environmental Change and Societal Impact, Biogeography

Teaching: Environmental Changes and Impacts, Paleoclimatology, Biogeography

Consulting: Water Resources, Wetlands, Ecological Restoration, Palynology, Dendrochronology, Climate Change, Geographical Sciences

Scholarly and Professional Activities

President

American Association of Geographers (2016-17)

Canadian Association of Palynologists (1995)

Vice President

American Association of Geographers (2015)

Chair-Elec, Chair, Past Chair AAAS Geography and Geology Section (2011-13)

Chair

Council of Canadian Academies Panel on Nature-Based Solutions for Carbon Sequestration

AAG Blue Ribbon Panel of COVID-19 Response

AAG Executive Director Search Committee (2018-2019)

PARCS – NSF Program (2001-2005)

Biogeography Specialty Group of the AAG (1999-2001)

IsoTrace Laboratories Board, Physics Department, University of Toronto (1993-1995)

Committee on the Future of the Association of Canadian Universities for Northern Studies (1989)

Founding Treasurer

International Biogeographical Society (2001-2002)

International Coordinator

International Boreal Forest Research Association (Global Change) (1991-93)

Executive

IsoTrace Laboratories, Physics Department, University of Toronto (1992-1995)

Board/Committee Member

Canadian Association of Geographers Awards Committee (2020)

NAS-NRC Geographical Sciences Committee (2018-Present)

Canadian Heritage Trust (2014-Present)

NAS-NRC Transformative Research in the Geographical Sciences Committee (2014-Present)
NAS-NRC Geographical Sciences Committee (2011-Present)
NAS-NRC Strategic Directions in Geographical Sciences Committee (2008-2010)
AAAS Geography-Geology Nominating Committee (2005-2008)
NSF ARCSS Advisory Committee (2002-2006)
NSF PALE/PARCS Steering Committee (1998-2005)
Panel to Develop a New PAGES Core Project on Arctic Climate Change (1995)
Canadian Association of Geographers Global Change Committee (1991)
North American Pollen Data Base (1991-1995)
IsoTrace Laboratories, Physics Department, University of Toronto (1990-95)
Hamilton-Wentworth Archaeological Foundation Board of Directors (1991-92)
Committee for the Professional Registration of Geoscientists (Ontario) (1990-92)
International Panel on Boreal Forest Research (Moscow) (1990-91)
Association of Canadian Universities for Northern Studies (1987-1990)

Elector

Oxford University (2008 and 2010)

Invited Panel Member/Moderator/Workshop Participant

Conservation International Water Health Index Workshop (2015)
University of Waterloo Trans-Boundary Water Workshop (2012)
Aspen Climate Change Institute Workshop on Climate Change Issues and Perspectives (2012)
UN University Workshop on Climate Change and Waterborne Disease (2009)
NSF Earth Systems History Workshop (2005)
Royal Society Workshop Evolution and the Quaternary (2004)
Holocene Climate Change Research (2000)
NSF Earth Systems History Panel (1998-2000)
PALE Workshop on Laminated Sediments (1996)
NSF Arctic Systems Sciences All Hands Workshop (1996)
NSF ARCSS Russian Shelf Interface Planning Workshop (1996)
Ontario Ministry of Environment Fire Workshop (1995)
PAGES Multi-Proxy Workshop (1994)
NSF PALE Workshop (1993-95)
NOAA Grant Selection Panel (1994)
COHMAP Workshop (1994)
Society of American Foresters Boreal Forest Plenary Session (Moderator) (1994)
NATO World Biomass Burning Workshop (Moderator) (1994)
Geological Survey of Canada 6ka Workshop (1991)

Editorial Board / Advisory Board

Environmental Reviews (2019-Present)
World Agriculture (2010-2017)
Annals of the American Association of Geographers (1996-2000)
Arctic, Antarctic and Alpine Research (2000-Present)
Ecological Applications (2000- 2003)
Geography Compass (2005-2007)
Great Lakes Geographer (1993-1997)
Journal of Biogeography (2004-2006)
Physical Geography (2002-2010)

Review of Palaeobotany and Palynology (1989-2007)
Quaternary International (1997-)

Associate Editor

Arctic, Antarctic and Alpine Research (2006-)

Guest Editor

PNAS Special Feature (2010)
Journal of Paleolimnology (2000)
Review of Palaeobotany and Palynology (1993)
Canadian Geographer Focus Section (1988)

Special Session Organizer

National Academy of Sciences (2016)
American Geophysical Union (2007)
American Geophysical Union (1998)
INQUA (1995)
American Association of Geographers (1990)
Canadian Association of Geographers (1986)

Fieldtrip Organizer

Association of American Geographers (2002)
Canadian Association of Geographers (1987)
International Palynological Conference (1984)

Science Advisor

National Atlas of Canada (1989)
Operation Raleigh Canadian Arctic Expedition (1988)

Invited Speaker (Universities)

University of St Andrews (2019)
University of Oklahoma (2018)
University of Kansas (2018)
University of South Dakota (2017)
Miller Lecture Penn State University (2015)
Concordia College, Orange County (2015)
CSU Fullerton (2012)
Orange Coast College (2012)
University of Toronto (2012)
Queens University – International Visiting Scholar Open Lecture (2011)
Arizona State University - Comeaux Lecture (2011)
University of Western Ontario (2010)
Texas AM University – Haynes Lecturer (2009)
Clark University – Atwood Lecturer (2009)
Queen's University Belfast (2009)
United Nations University (2008)
University of Bergen (2008)

University of Arkansas (2008)
Cornell University (2007)
University of Wisconsin, Madison – Hildale Lecture (2007)
University of Arizona (2007)
Lehigh University (2006)
Lamont-Doherty Earth Observatory, Columbia University (2006)
Stanford University (2006)
University of Wisconsin, Milwaukee - Mayer Colloquium Speaker (2006)
UC Irvine (2006)
University of Helsinki (2005)
University of Minnesota - Brown Day Lecture (2005)
University of Maryland - Annual Departmental Distinguished Speaker (2005)
Oxford University – Astor Lecture (2004)
University College London (2004)
Uppsala University (2004)
Ohio State University (2003)
Universite Laval (2002)
UC Santa Barbara (2001)
University of Arizona (2000)
UC Berkeley (1999)
University of Pennsylvania (1999)
University of Washington (1997)
University of Iowa (1997)
USC (1996)
UCLA-Biology (1996)
University of Helsinki – Helsinki Medal Lecture (1995)
McMaster University (1995)
University of Virginia (1995)
Guelph University (1995)
UCLA-Geography (1995)
Queen's University (1993)
Universite Laval (1993)
Cambridge University (1993)
University of Alberta (1991)
University of Calgary (1991)
Cambridge University (1989)
University of Toronto (1989)
University of Western Ontario (1988)
University of Waterloo (1987)
University of Alaska (1987)
University of Alberta (1986)
Guelph University (1986)
University of Calgary (1985)
York University (1985)

Interviewed Scientist/Commentator

November 2022 NBC LX News on California Marshes
April 2022 Los Angeles Times Drought in California

February 2022 The Hill on Southern California Wildfires
February 2022 Guardian Newspaper on Southern California Wildfires
February 2022 OC Registrar on Southern California Wildfires
August 2021 Los Angeles Times on Perfect Drought in California
ABC News (2021)
Sacramento News and Review (2021)
USA Today (2021)
Newsweek (2021)
The Guardian Newspaper (2021)
Vancouver Art Gallery (2020)
USA Today (2020)
ABC 7 News (2020)
The Hill (2020)
Orange County Register (2019)
Los Angeles Times (2019)
ABC Nightly News (2018)
BBC National News (2018)
MSNBC National News (2018)
NPR National News (2018)
NPR KPCC Special on Marshes (2018)
Los Angeles Times (2018)
NPR As It Happens (2017)
CBC News (2017)
Los Angeles Weekly (2017)
Santa Barbara Free Press (2017)
Time Magazine (online – 2017)
CBC The Nature of Things (2016)
Los Angeles Times (2016)
Fever (Book on Climate Change (2013)
Los Angeles Times (2013)
KNX Business Report (2013)
Pacific Currents Magazine (2011)
FOX News Radio (2010)
NPR (2009,2010)
BBC Television (2009)
Financial Times of London (2009)
Los Angeles Times (2007)
ABC – KGO World News (2006)
Numerous Local LA News Channels
And Newspapers (2000 -)
National Geographic (2007)
Discovery Channel (2004; 2008)
Science News (2004)
Toronto Star (2003)
NBC National News (2000)
Discovery Channel (2000)
Canadian Geographic (1995)
Globe and Mail (1995)
Toronto Star (1995)

Star Phoenix (1995)
 Western Report (1995)
 Insight (1995)
 University Affairs (1995)
 Courier (1994)
 CHCH TV (1992)
 CBC Manitoba (1991)
 CBC Ideas (1989)
 CBC North (1986)

Courses Taught

UCLA Geography

<u>Year</u>	<u>Course</u>	<u>Units</u>	<u>Topic</u>
2021	178	4	Cons Geog Field and Prof Practices
2020	215	4	Advanced Field and Laboratory Techniques
2018	159e	4	Advanced Methods - Biogeography
2016-	260	4	Advanced Methods in Biophys. Geography
2015-	297a	4	Geography Graduate Core Course
2014-	228	4	Human Security and Environmental Change
2005-	297	4	Evolution and Geography
2002-	2	5	Biogeography
1996-	126/131	4	Environmental Change
1996-	5	4	Environmental Studies
1996-	106/108	4	World Vegetation
1996-	217	4	Quaternary Studies
1996-	213	4	Biogeography Seminar
1996-	208	4	Advanced Biogeography

UCLA EEB

<u>Year</u>	<u>Course</u>	<u>Units</u>	<u>Title</u>
1999-	M200A	4	Evolutionary Biology
	(team taught course)		

McMaster

<u>Year</u>	<u>Course</u>	<u>Units</u>	<u>Title</u>
1992-94	1A6*	1 1/2	Environmental Science
1992	4V6	3	Environmental Science
1988-89	2U3*	3	Environmental Science
1987	1B6	6	Intro. Physical Geog.
1986-94	4P3-6P3*	3	Advanced Biogeography
1985-94	3P3*	3	Biogeography
1985-90	732*	2	Graduate Biogeography
1984-86	3M3	3	Glacial and Periglacial Geomorphology

1984-90	3V3	3	Remote Sensing
1984-85	2M3	3	Landforms of Canada

*New courses introduced by G.M. MacDonald

Graduate Supervisorships

UCLA

<u>Student</u>	<u>Year</u>	<u>Program</u>	<u>Theses/Project Title</u>
Jason Kindinger	2019-	MA/Ph.D.	
Lisa Martinez	2018-	MA/Ph.D.	Calif. Ice Age and eDNA
Ben Nauman	2017-	MA/Ph.D.	California Climate Dipole
Jiwoo Han	2017-	Ph.D.	California Climate Dipole
Elizabeth Fard	2016-2022	MA/Ph.D.	California Coastal Marshes
Jessie George	2016-2022	Ph.D.	LaBrea Tar Pits Flora
Scott Lydon	2014-2022	Ph.D.	Utah Climate Change
Lauren Brown	2013-2019	MA/Ph.D.	California Coastal Marshes
Jordan Rosencranz	2012-2017	D Env Sci/Eng (Co)	California Coastal Marshes
Mike Antos	2011-2016	Ph.D. (Co)	California Water Policy
Kate Glover	2012-2017	Ph.D.	California Climate Change
Marcus Thompson	2012-2017	Ph.D.	Utah Climate Change
Kate Willis	2009-2016	M.A./Ph.D.	Siberia Peat/Calif. Landscape
James Holmquist	2008-2013	Ph.D. (EEB)	James Bay Peatlands
Elyse Zavar	2007-2009	MA	Russian Peatland Dyn.
Abbie Tingstad	2005-2009	Ph.D.	Utah Paleoclimate
Stephanie Pau	2005-2009	Ph.D. (Co-Adv)	Hawaii Paleovegetation
Lauren Paladino	2005-2009	M.A. (AOS Co-Adv)	So. Calif. Paleoclimate
Dave Beilman	2002-2006	Ph.D.	Siberian Carbon
Jon Campbell	2001-2005	Ph.D.	Mesquite Ecology

Aaron Potito	2000-2005	Ph.D.	Calif. Veg. History
Sigrid Rian	2000-2006	Ph.D.	Malaria in Mali
Amanda Patel	1999-2005	Ph.D.	Sierra Veg. And Fire
Alex Aguilar	1998-2002	Ph.D.	Honduran Pine Dynamics
Judy King	1998-2003	M.A.	Western Drought
David Porinchu	1998-2002	Ph.D.	Sierra Paleolimnology
Sigrid Rian	1998-2000	M.A.	L.A. Basin Drought
Bruce Gervais	1997-2001	Ph.D.	Kola Treeline History
Roslyn Case	1996-2000	Ph.D.	Spatial and Temporal Patterns of Prairie Drougt

McMaster

<u>Student</u>	<u>Year</u>	<u>Program</u>	<u>Theses/Project Title</u>
Michael Pisaric	1994-96	M.Sc.	Treeline History in Yakutia, Northeastern Siberia
Roslyn Case	1992-94	M.Sc.	Dendroclimatology of Prairie Drought
Katherine McLeod	1988-91	M.Sc.	Postglacial Population Dynamics of Three Boreal Conifers.
Julian Szeicz	1987-89	M.Sc.	Palaeoecology of the Ontario Oak Plains.
	1990-94	Ph.D.	Treeline History of the Mackenzie Mts., N.W.T.
Chris Larsen	1986-89	M.Sc.	Variations in Boreal Forest Fire Frequency
	1989-94	Ph.D.	Annual Pollen and Charcoal Deposition in a Meromictic Lake
Katrina Moser	1986-88	M.Sc.	Treeline History North of Yellowknife, N.W.T.

Lifetime Publications

Books and Monographs

Committee on Identifying Transformative Research in the Geographical Sciences - Goodchild, M. F., Glasmeier, A.K., and MacDonald, G.M. 2016. *Fostering Transformative Research in the Geographical Sciences*. National Academies Press, Washington, DC. 90 p. ISBN 978-0-309-38934-1 | DOI: 10.17226/21881

Murphy, A.B., Colleton, N., Downs, R.M., Goodchild, M.F., Hanson, S., Lawson, V., MacDonald, G., Magilligan, F.J., Moseley, F.J., Polsky, C., Seto, K.C. and Wright, D.J. 2010. *Understanding the Changing Planet: Strategic Directions for the Geographical Sciences*. National Academies Press, Washington, DC. 220 p.

Moser, K.A., Smol, J.P. and MacDonald, G.M. 2004. *Ecology and Distribution of Diatoms from Boreal Forest Lakes in Wood Buffalo National Park, Northern Alberta and Northwest Territories, Canada*. The Academy of Natural Sciences, Philadelphia 59 p.

MacDonald, G.M. 2002. *Biogeography: Space, Time and Life*. John Wiley and Sons, New York. 518 p. (Cowles Award Winner)

Peer Reviewed Contributions to Books

MacDonald, G.M. and Longcore, T., 2022. Geographic Patterns of COVID-19 Vaccination, Infection, and Mortality in the United States During Year Two of the Pandemic and the Influence of Political Orientation. In *Coronavirus (COVID-19) Outbreaks, Vaccination, Politics and Society* (pp. 341-355). Springer, Cham.

MacDonald, G., 2021. Geographic Patterns of the Pandemic in the United States: Covid-19 Response Within a Disunified Federal System. In *Coronavirus (COVID-19) Outbreaks, Environment and Human Behaviour* (pp. 451-467). Springer, Cham.

MacDonald, G.M. 2014. Carbon Dioxide, Climate Change, and Crops in the Twenty-First Century: The Dawn of a New World. In Pessaraki, Mohammad, ed. *Handbook of Plant and Crop Physiology*. CRC Press, 2014. 817-826.

Overpeck, J., G. Garfin, A. Jardine, D. E. Busch, D. Cayan, M. Dettinger, E. Fleishman, A. Gershunov, G. MacDonald, K. T. Redmond, W. R. Travis, and B. Udall. 2013. "Summary for Decision Makers." In *Assessment of Climate Change in the Southwest United States: A Report Prepared for the National Climate Assessment*, edited by G. Garfin, A. Jardine, R. Merideth, M. Black, and S. LeRoy, 1–20.

Fleishman, E., J. Belnap, N. Cobb, C. A. F. Enquist, K. Ford, G. MacDonald, M. Pellant, T. Schoennagel, L. M. Schmit, M. Schwartz, S. van Drunick, A. L. Westerling, A. Keyser, and R. Lucas.

2013. "Natural Ecosystems." In *Assessment of Climate Change in the Southwest United States: A Report Prepared for the National Climate Assessment*, edited by G. Garfin, A. Jardine, R. Merideth, M. Black, and S. LeRoy, 148–167.
- MacDonald, G.M. 2012. Climate change and the central Canadian treeline. in H. French and O. Slaymaker (eds.) *Changing Cold Environments: A Canadian Perspective*, First Edition. John Wiley & Sons, Chichester. 185-199.
- MacDonald, G.M. 2011. Global climate change. in J.A. Agnew and D.N. Livingstone (eds.) *Geographical Knowledge*. Sage, London, 540-548.
- MacDonald, G.M. 2010. Art, architecture, artifice and the imagined landscape: reflections on Los Angeles and Denis Cosgrove. in V. Della Dora, S. Digby and B. Basdas (eds.) *Visual and Historical Geography*. Historical Geography Research Series, Royal Geographical Society – Institute of British Geographers, London. 130-136.
- Gillespie, T.W. and MacDonald, G.M. 2010. Vegetation. in B. Gomez and J.P. Jones III (eds.) *Research Methods in Geography*, Wiley-Blackwell, London, 137-154.
- MacDonald, G.M. 2006. Plant Macrofossil Methods and Studies: Megafossils. in S.A. Elias (ed.) *Encyclopedia of Quaternary Science Vol 3*. Elsevier, Oxford, 2298-2307.
- MacDonald, G.M. 2006. Arctic treeline. in *McGraw-Hill Yearbook of Science and Technology*. McGraw-Hill, New York, 16-19.
- Gajewski, K. and MacDonald, G.M. 2004. Palynology of North American Arctic Lakes. in R. Pienitz, M.S.V. Douglas and J.P. Smol (eds.) *Long Term Environmental Change in Arctic and Antarctic Lakes*. Springer, Netherlands, 89-116.
- MacDonald, G.M., Edwards, T.W.D., Gervais, B., Laing, T.E., Pisaric, M.F.J., Porinchu, D.F., Snyder, J.A., Solovieva, N., Trasov, P. and Wolfe, B.B. 2004. Paleolimnological research from northern Russian Eurasia. in R. Pienitz, M.S.V. Douglas and J.P. Smol (eds.) *Long Term Environmental Change in Arctic and Antarctic Lakes*. Springer, Netherlands, 349-380.
- MacDonald, G.M. 2002. The boreal forest. in *The Physical Geography of North America*, A.R. Orme (ed.) Oxford University Press, Oxford, 270-290.
- MacDonald, G.M. 2001 Conifer stomata. in *Tracking Environmental Change Using Lake Sediments*, J.P. Smol, H.J.B. Birks and W.M. Last (eds.) Kluwer Academic Publishers, Dordrecht, 33-47.
- Kremenetski, K.V., Liu, Kam-Biu and MacDonald, G.M. 1998. The late Quaternary history of pines in northern Asia. in *The Pines*, D. Richardson (ed.): Cambridge University Press, Cambridge, 95-106.
- MacDonald, G.M., Cwynar, L.C. and Whitlock, C. 1998. The late Quaternary history of pines in northern North America. in *The Pines*, D. Richardson (ed.): Cambridge University Press, Cambridge, 122-136
- Scott, P.A., Lavoie, C., MacDonald, G.M., Sveinbjornsson, and Wein, R.W. 1997. Climate change and the future position of the arctic treeline in *Global Change and Arctic*

Terrestrial Ecosystems, W. Oechel et al. (eds.). Springer, Berlin, 245-265.

Sugita, S., MacDonald, G.M. and Larsen, C.P.S. 1997. Reconstruction of fire disturbance and forest succession from fossil pollen in lake sediments: potential and limitations. in *Sediment records of biomass burning*, J. Clark et al. (eds.). Springer-Verlag, Berlin, 387-412.

MacDonald, G.M., 1996. Quaternary palynology in *Stratigraphic Palynology*, J. Jansonius and D.C. McGregor (eds.); American Association of Stratigraphic Palynologist, Houston, Texas, 879-910.

MacDonald, G.M. and Gajewski, K., 1992. The northern treeline of Canada in *Geographical Snapshots of North America*, D.G. Janelle (ed); Guilford Press, New York, 34-37.

Clague, J.J. and MacDonald, G.M., 1989: Paleoeecology and paleoclimatology (Canadian Cordillera); in Chapter 1 of *Quaternary Geology of Canada and Greenland*, R.J. Fulton (ed.); Geological Survey of Canada, *Geology of Canada*, no. 1 (also Geological Society of America, *The Geology of North America*, v. K-1).

MacDonald, G.M., 1987. Forests of the Hamilton region: Past, present and future in *Steel City: A Geography of Hamilton and Region*, M.J. Dear, J.J. Drake and L.G. Reeds (eds.); University of Toronto Press, Toronto, 65-84.

Peer Reviewed Journal Articles (194 total)

Dong, C., Williams, A.P., Abatzoglou, J.T., Lin, K., Okin, G.S., Gillespie, T.W., Long, D., Lin, Y.H., Hall, A. and MacDonald, G.M., 2022. The season for large fires in Southern California is projected to lengthen in a changing climate. *Communications Earth & Environment*, 3(1), pp.1-9.
<https://doi.org/10.1038/s43247-022-00344-6>

Fard, E., Brown, L.N., Lydon, S., Smol, J.P. and MacDonald, G.M., 2021. High-resolution sedimentological and geochemical records of three marshes in San Francisco Bay, California. *Quaternary International*.

Glover, K.C., George, J., Heusser, L. and MacDonald, G.M., 2021. West Coast vegetation shifts as a response to climate change over the past 130,000 years: geographic patterns and process from pollen data. *Physical Geography*, pp.1-19.

Holmquist, J.R., Brown, L.N. and MacDonald, G.M., 2021. Localized Scenarios and Latitudinal Patterns of Vertical and Lateral Resilience of Tidal Marshes to Sea-Level Rise in the Contiguous United States. *Earth's Future*, 9(6), p.e2020EF001804.
<https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2020EF001804>

Leidelmeijer, J.A., Kirby, M.E., MacDonald, G., Carlin, J.A., Avila, J., Han, J., Nauman, B., Loyd, S., Nichols, K. and Ramezan, R., 2021. Younger Dryas to early Holocene (12.9 to 8.1 ka) limnological and hydrological change at Barley Lake, California (northern California Coast Range). *Quaternary Research*, pp.1-15.

MacDonald, G., 2021. Climate Change: Geography's Debt and Geography's Dilemma, The Professional Geographer, DOI: 10.1080/00330124.2021.1915815

Glover, K.C., Chaney, A., Kirby, M.E., Patterson, W.P. and MacDonald, G.M., 2020. Southern California vegetation, wildfire, and erosion had nonlinear responses to climatic forcing during Marine Isotope Stages 5–2 (120–15 ka). *Paleoceanography and Paleoclimatology* 35, p.e2019PA003628.

Hugelius, G., Loisel, J., Chadburn, S., Jackson, R.B., Jones, M., MacDonald, G., Marushchak, M., Olefeldt, D., Packalen, M., Siewert, M.B. and Treat, C., 2020. Large stocks of peatland carbon and nitrogen are vulnerable to permafrost thaw. *Proceedings of the National Academy of Sciences*, 117(34), pp.20438-20446.

MacDonald, G., 2020. Climate, Capital, Conflict: Geographies of Success or Failure in the Twenty-First Century. *Annals of the American Association of Geographers*, 1-21.

Thomson, M.J. and MacDonald, G.M., 2020. Climate and growing season variability impacted the intensity and distribution of Fremont maize farmers during and after the Medieval Climate Anomaly based on a statistically downscaled climate model. *Environmental Research Letters* 15
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Research Funding (PI or Co-PI)

<u>Year</u>	<u>Grantor</u>	<u>Amount (\$)</u>	<u>Title of Project</u>
2019	U. St Andrews	6,000	Global Visiting Fellowship
2019	Haines Found.	40,000	Aerial Photograph History – LA River
2018	Dept. Interior	4,500,000	SW Clim. Adapt. Sci. Center
2018	NSF	114,520	S. Calif. Ice Age eDNA
2017	NSF	193,430	California Climate Dipole
2016	UC MEXUS	24,890	Baja Mangroves
2016	UCLA Gr Chll.	79,000	So. Calif. Drought Impacts
2016	EPA	49,950	Humboldt Marsh Sustainability
2015	DoI FWS	27,306	Seal Beach Marsh Restoration
2014	Dept. Interior	105,050	California Marshes and Sea Level
2014	Govt. Quebec	12,000	Carbon Trade Symposium
2013	National Parks	26,265	Remote Sensing Monitoring Protocol
2012	Dept. Interior	202,227	California Marshes and Sea Level
2012	Marisla Fnd.	60,000	California Marsh Restoration
2011	Dept. Interior	821,436	SW Climate Science Center
2009	NSF	181,000	Peatland Biogeochemistry
2007	UC MEXUS	1,400	Drought Session – AGU Mexico
2006	NSF	626,610	Global Peatland Hydrology
2004	NSF	397,002	Canadian Arctic Paleoclimate
2004	NSF	300,000	Utah Paleoclimate
2004	NSF	349,203	Arctic Env. Change and Genetics
2003	NSF	583,114	Siberian Hydrology
2002	NSF	124,000	Sierra Paleoclimate
2002	NSF	238,965	PARCS Committee Grant

1999	NSF	711,000	Siberian Carbon History
1999	NSF	180,000	Sierra Paleoclimate
1997	UC Water	27,000	Colorado River Drought
1996	NSF	13,000	PALE Workshop
1996	UCLA	2,467	California Pollen
1996	NSF	100,110	N. Great Plains Paleoclimate
1996	NSF	182,010	Kola Pen. Paleoecology
1995	UCLA	2,300	Tree-ring Density Calibration
1994	PAGES	4,000	Russian Scientific Exchange
1994	NSERC	15,960	Normarski-DIC Microscope
	(Equipment)		
1993	NSERC	1,080,000	Treeline Canada-Russia
	Special		
	(Collaborative-PI)		
1993	McMaster	3,500	Northern Studies
	Committee on		
	Northern Studies		
1993	NSERC	94,500	Palaeoclimate
	(Operating)		
1993	NSERC	11,300	Canada-Russia
	(Equipment)		
1992	NSERC	23,000	Thin-Section Saw
	(Special		
	Collaborative)		
1992	McMaster	5,500	Russian Arctic Fieldwork
	Committee on		
	Northern Studies		
1991	NSERC	23,000	Northern Studies
	(Equipment)		
1991	Royal	15,000	Automated Dendrochronology
	Society of		
	Canada		
1991	Department	2,500	System
	of Indian and		
	Northern		
	Affairs		
1991	McMaster	5,400	Planning Funds
	President's		
	Committee on		
	Northern Studies		
1990	NSERC	99,150	Canada-USSR
	(Operating)		
1990	NWT	5,000	Treeline Project
	Government		
1990	McMaster	6,500	Planning Funds
	President's		
	Committee on		
	Northern Studies		
1989	NSERC-	6,500	Canada-USSR
			Treeline Project
			Joint Research at Botany School

	Royal Society Exchange Fellowship		Cambridge University/Visiting Fellow, Clare Hall
1988	McMaster	2,200	Northern Studies
	President's Committee on Northern Studies		
1987-90	NSERC	78,810	Postglacial Plant Population Dynamics and Population Genetics in the Western NWT
	(Operating) (Northern Supplement)		
1987	NSERC	18,400	Micro-Image Analysis System
	(Equipment)		
1987	NWT	1,100	14C Dating Funds
	Government		
1987	McMaster	4,400	Northern Studies
	President's Committee on Northern Studies		
1985-86	NSERC	48,000	Postglacial Plant Population Dynamics at the Northern Treeline
	(Operating) (Northern Supplement)		
1984	McMaster-	15,000	Late Quaternary Palaeoecology of the Northern Great Plains
	Science Eng. Res. Board		
1984	McMaster-	5,500	Late Quaternary Palaeoecology of the Northern Great Plains (Equipment)
	Science Eng. Res. Board		

NB. Canadian universities do not extract overhead costs or pay PI salary from grants

Major Administrative Responsibilities

UCLA

Director UC White Mountains Research Center (2016-)
 Chair UCLA Geography Development Committee (2014-)
 Chair UCLA Canadian Studies Program (2013-)
 Director UCLA IoES (2009-2014)
 Undergraduate Committee (2006-2008)
 Institute of the Environment Executive (2005-2009)
 Chair of Geography (2002-2006)
 Vice Chair of Geography (1998-2002)
 Graduate Advisor (1997-2002)
 Graduate Committee (1995-2002)
 General Education Committee (1996-2002)
 Institute of the Environment, Research Committee (1995)
 Library Committee (1995-1996)

McMaster

Associate Chair (1991-1995)
 Committee on Relationship Between Geography and Geology (1994-1995)

Geography Environmental Program Co-ordinator (1993-1995)
Committee on Future of Geography at McMaster (1993-1994)
Science and Engineering Tenure and Promotions Committee (1991-1992)
Committee to Select Chair of Geography (1991)
Chair, Departmental Undergraduate Committee (1991-1995)
Committee to Create an Environmental Program in Geography (1990-1991)
University Awards Committee (1990)
Undergraduate Awards Committee (1989)
University Hiring Committee for Liaison Officer (1989)
Departmental Graduate Committee (1989; 1991-1995)
University Graduate Council (1988-1990)
Chair, President's Committee on Northern Studies (1987-1990)
Faculty of Science Orientation Day Organizer (1986)
Departmental Library Representative (1984-1989)
Departmental Open House Organizer (1985)



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