



Brian G. McAdoo

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Education

- 1993-1999 **University of California, Santa Cruz**, Santa Cruz, CA
Ph.D. in Earth Sciences, May 1999
Dissertation: Submarine Geomorphology of the Cascadia Accretionary Prism
Thesis Committee: Daniel Orange (Chair), J. Casey Moore, Eli Silver, Homa Lee
Funding: Shell Oil Foundation Fellowship; Amoco Minority Fellowship; Office of Naval Research; Dissertation year fellowship, Vassar College
- 1991-1992 **University of Otago**, Dunedin, New Zealand
Diploma in Science, Geology, December 1992
Thesis: Havelock Geology: The Alpine Fault Zone Between the Cook and Karangarua Rivers, South Island, New Zealand
Advisors: Richard Sibson, Richard Norris
Funding: J. William Fulbright Scholarship
- 1987-1991 **Duke University**, Durham, NC
B.S. Geology, May 1991
Thesis: Comparison of trace strontium and magnesium with the oxygen isotope paleoclimate record, South Indian Ocean
Advisor: Paul Baker
Funding: Richard B. Dannenberg Mentorship; National Science Foundation, Science Opportunity Fellowship; American Geologic Institute Minority Scholarship

Employment

- 2013-present Inaugural Rector, Yale-NUS College
- 2012-present Professor of Science (Environmental Studies), Yale-NUS College
- 2015 Acting Dean of Students, Yale-NUS College
- 2011-2015 Althea Ward Clark Professor of Environmental Science, Vassar College
- 2008-2009 Blaustein Visiting Professor, School of Earth Sciences, Woods Institute for the Environment, Stanford University
- 2006-2011 Associate Professor, Department of Earth Science and Geography, Vassar College
- 2004-2005 Visiting Professor, Institute of Geology, ETH-Z, Zürich, Switzerland
- 2002-2004 Mary Clark Rockefeller Assistant Professor, Department of Geology and Geography, Vassar College
- 1999-2001 Assistant Professor, Department of Geology and Geography, Vassar College
- 1998-1999 Minority Scholar-in-Residence, Vassar College
- 1997 Exploration Geologist, Amoco Nigeria Corporation, Houston, Texas
- 1996 Geology Section Leader, Academic Excellence Honors Program (ACE helps non-traditional students excel in university science and math courses)
- 1993-1997 Saturday Academy (volunteer)- Teaching young minority teens about geology and seismology.
- Summer 1994 Teaching Assistant, University of California, Santa Cruz, California- Field Geology
- Summer 1991 Geologist, Shell Offshore Incorporated, New Orleans, Louisiana
- Summer 1989 Geologic Technician, Consolidated Natural Gas Development Company, Pittsburgh, Pennsylvania
- 1988-1989 Project for the Study of Developed Shorelines, Duke University, Durham, North Carolina

Professional Affiliations

- American Geophysical Union
European Geosciences Union
Geological Society of America
Association of American Geographers
Partnership for the Environment and Disaster Risk Reduction (PEDRR)
World Conservation Union (IUCN), Commissioner on Ecosystem Management
Tsunami and Disaster Mitigation Research Center, Syiah Kuala University, Banda Aceh, Indonesia

Funding/Awards

- 2014 National Science Foundation (\$700K), Sustainable Adaptive Gradients in the Coastal Environment (SAGE): Reconceptualizing the Role of Infrastructure in Resilience (Steering Committee Member; P.I. Elisabeth Hamin, U. of Massachusetts)
- 2010 Widgeon Foundation (\$30K); NSF RAPID (\$30K). Information sharing between disaster response and recovery phases of the 2010 Haiti earthquake. Principal Investigator- Louise Comfort (U. of Pittsburgh)
- 2007 National Science Foundation (\$25K). Rapid response to the 1 April, 2007 Solomon Islands tsunami.
- 2005-2010 National Science Foundation (\$2.4M): Developing International Protocols for Offshore Sediments and their Role in Geohazards, co-PI.
- 2003-2004 National Science Foundation (\$25K): Surface Geomorphology from 3D Seismic and Multibeam Bathymetry: Implications for Cascadia Seismicity
- 2002 Vassar College, Environmental Sciences Research Fund (\$5K): Tsunami Deposits from the 1929 Grand Banks Earthquake, Taylor's Bay, Newfoundland
- 2001-2002 National Science Foundation (\$34K): Surface Geomorphology from 3D Seismic, Nankai Accretionary Prism, Japan. Travel, equipment, salary.
- 1999-2001 Vassar College Environmental Sciences Research Fund (\$4K): Snow Avalanche Hazard, Mt. Washington, New Hampshire. Travel, equipment, avalanche safety course.
- 1998 Ford Foundation Fellowship (declined)
- 1993-1998 Shell Oil Foundation, Graduate Student Fellowship: Tuition, salary.
- 1993 Amoco Minority Fellowship: Summer salary
- 1991-1993 J. William Fulbright Scholarship, University of Otago, Dunedin, New Zealand: Travel, tuition, equipment stipend, salary.
- 1990-1991 National Science Foundation, Science Opportunity Fellowship (\$5K): Stable isotope analysis, equipment, and travel.

Field and Sea Experience

- Borneo, 2016.** Industrial scale land-use and 'Green' energy- palm oil and dams in the Baram River region
- Nepal, 2015, 2016.** Land-use, roads and landslides, Annapurna region
- Banda Aceh, 2013.** Post-Tsunami Reconstruction
- Bermuda, 2012.** Global Threats to Coral Reefs, Field Ecology and Geology class
- Japan, 2011.** Post-tsunami reconnaissance and sampling following 2011 Tohoku tsunami
- Haiti, 2010.** Post-earthquake response and recovery communication networks, Port-au-Prince
- Jamaica, 2010.** Coastal hazard and risk assessment, Negril
- Samoa, 2009.** Marine ecosystem assessment following the September 2009 earthquake and tsunami
- Sumatra, 2008.** Coastal geomorphology, earthquakes and tsunami
- Solomon Islands, 2007.** Field survey of the April 2007 tsunami
- Java, 2006.** Field survey of July 2006 tsunami
- Sri Lanka, 2006.** Paleotsunami deposits search, assessment of post-tsunami aid distribution
- US Gulf of Mexico Coast, 2005.** Field survey of Hurricane Katrina damage and sediment deposits
- Sumatra, 2005b.** Simeulue Island. Mangroves, coral reef, and societal interactions
- Sumatra, 2005a.** International Tsunami Survey Team (ITST) member, field survey of December 2004 and March 2005 earthquakes and tsunami on offshore islands
- Sri Lanka and Maldives, 2005.** Field survey of the December 2004 Indian Ocean tsunami
- Antarctica, 2004.** Alumnae and Alumni of Vassar College study trip group leader. Provided readings and two ship board lectures on the geology of the Antarctic Peninsula and the potential implications of oil development on the region
- Northern Arizona, 2003.** Fire, Water and People: Geology and Ecology of the Desert Southwest. Field Geology and Ecology class
- Newfoundland, 2002.** Tsunami deposits from the 1929 Grand Banks earthquake. Coring marshes for tsunami sands in peat
- Bahamas, 2001.** Field Geology and Ecology class

Field and Sea Experience (*continued*)

- Mt. Washington, NH, 2000.** Snow avalanche hazard prediction
- Jamaica, 1999.** Instructor. Geophysical survey of slave village, Keck Geology Consortium Summer research project.
- Monterey Bay, California, 1993-1997.** RV *Point Lobos*/ ROV *Ventana*. Seafloor fluid venting and geomorphology
- Northern California, 1996 and 1998.** RV *Wecoma* cruise. STRATAFORM Seafloor acoustic and geotechnical properties, Eel River Basin
- Mid Atlantic Ridge, 1995.** RV *Atlantis III*/ALVIN cruise. Structural geology and petrology south of the Kane Fracture Zone using the submersible ALVIN
- Costa Rica, 1994.** RV *Atlantis III*/ALVIN cruise. Submarine fluid flow and structure of the Costa Rica Accretionary Prism using the submersible ALVIN
- Oregon, 1993.** RV *Atlantis III*/ALVIN cruise. Submarine geomorphology, surficial fluid venting, and structure on the toe of the Cascadia Accretionary Complex using the submersible ALVIN
- South Island, New Zealand, 1991-1992.** Structural mapping, paleoseismology, and petrology of the Alpine Fault

Publications

- Ranasinghe, P., J. Ortiz, A. Moore, B. **McAdoo**, N. Wells, D. Klarer, Y. Jayarathna, S. Kalubandara, Signatures of paleo-tsunamis in coastal back-barrier environments in eastern and southeastern Sri Lanka – Pre-2004 Indian Ocean Tsunamis, submitted to *Sedimentology*.
- Rovins, J, B. **McAdoo** and R. Weiss, South East Asia Risk Collaboration Hub (SEARCH), *Middle East Institute*, www.mei.edu/content/map/south-east-asia-risk-collaboration-hub-search, 19 July 2016.
- Monecke, K., C. Templeton, W. Finger, B. Houston, S. Luthi, B. **McAdoo**, E. Meilianda, J. Storms, D-J Walstra, R. Amna, N. Hood, F Karmanocky, Nurjanah, I. Rusydy, S. Sudrajat, Beach ridge patterns in West Aceh, Indonesia, and their response to large earthquakes along the northern Sunda trench, *Quaternary Science Reviews* 113, 2015.
- Ranasinghe, P. N., J. Ortiz, A. Moore, B. **McAdoo**, N. Wells, C. Siriwardana, and D. Wijesundara, Mid-Late Holocene coastal environmental changes in southeastern Sri Lanka: New evidence for sea level variations in southern Bay of Bengal, *Quaternary International* 298, 2013.
- Dominey-Howes, D., Dengler, L., Dunbar, P., Kong, L., Fritz, H., Imamura, F., **McAdoo**, B., Satake, K., Yalciner, A., Yamamoto, M., Yulianto, E., Koshimura, S., and Borrero, J., International Tsunami Survey Team (ITST) Post-Tsunami Survey Field Guide. 2nd Edition. UNESCO-IOC, Paris. 2012.
- Morgan, E., M. Vanneste, I. Lecomte, L. Baise, O. Longva, and B. **McAdoo**, Estimation of free gas saturation from seismic reflection surveys by the genetic algorithm inversion of P-wave attenuation model, *Geophysics* 77(4), 2012.
- McAdoo**, B.G. and L. Paravisini-Gebert, Not the Earthquake's Fault, *Nature Geoscience*, doi: 10.1038/ngeo_1116, 2011.
- Moore, A., J. Goff, B. **McAdoo**, H. Fritz, A. Gusman, N. Kalligeris, K. Kaslum, A. Susanto, D. Suteja, and C. Synolakis, Sedimentary deposits from the 17 July 2006 West Java tsunami near Cilacap, Indonesia, *Pure and Applied Geophysics*, 2011.
- Comfort, L.K., L. Huggins, M. Siciliano, S. Scheinert, P. Sweeney, S. Stebbins, T. Serrant, B. **McAdoo**, J. Augenstein, and N. Krenitsky, Transition from response to recovery: The January 12, 2010 Haiti earthquake, *Earthquake Spectra*, 2011.
- Borrero, J, B. **McAdoo**, B. Jaffe, L. Dengler, G. Gelfenbaum, B. Higman, R. Hidayat, A. Moore, W. Kongko, Lukijanto, R. Peters, G. Prasetya, V. Titov, E. Yulianto, Field Survey of the March 28, 2005 Nias-Simeulue Earthquake and Tsunami, *Pure and Applied Geophysics*, DOI 10.1007/s00024-010-0218-6, 2011.
- Goff, J., C. Chague-Goff, D. Dominey-Howes, B.G. **McAdoo**, S. Cronin, M. Bonte-Grapetin, S. Nichol, M. Horrocks, M. Cisternas, G. Lamarche, B. Pelletier, B. Jaffe, and W. Dudley, Paleotsunamis in the Pacific Islands, *Earth Science Reviews*, 2011.
- Gaillard, J.C., K. Sudmeier-Rieux, I. Kelman, and B. **McAdoo**, Cross cultural interactions, in *Encyclopedia of Disaster Relief*, Routledge, 2011.

- McAdoo, B.**, Tsunami hazards and risk reduction, in *Handbook of Natural Hazards and Disaster Risk Reduction and Management*, Routledge, 2011.
- McAdoo, B.**, Tsunami, in *Encyclopedia of Disaster Relief*, SAGE Publications, 2011.
- McAdoo, B. G.**, Samuelu, J., L. Bell, P. Ifopo, J. Ward, E. Lovell, P. Skelton, Coral reefs as buffers during the 2009 South Pacific tsunami, Upolu Island, Samoa, *Earth Science Reviews*, DOI 10.1016/j.earscirev.2010.11.005, 2010.
- McAdoo, B.G.**, A. Moore, and J. Baumwoll, Indigenous knowledge and the near field population response during the 2007 Solomon Islands tsunami, *Natural Hazards* 48, no. 1, p. 73-83, 2009.
- Lee, H., J. Locat, P. Desgagnes, J. Parsons, B. **McAdoo**, D. Orange, P. Puig, F. Wong, P. Dartnell, and E. Boulanger, Submarine Mass Movements on Continental Margins, in *Continental Margin Sedimentation: From Sediment Transport to Sequence Stratigraphy*, Nittrouer, C., J. Austin, M. Field, J. Kravitz, J. Syvitski, and P. Wiberg eds., International Association of Sedimentologists, 2009.
- Monecke, K., W. Finger, D. Klarer, W. Kongko, B.G. **McAdoo**, A.L. Moore, and S.U. Sudrajat, A 1,000-year sediment record of tsunami recurrence in northern Sumatra, *Nature* 455, p. 1232-1234, 2008.
- Morgan, E., B.G. **McAdoo**, and L. Baise, Quantifying geomorphology associated with large subduction zone earthquakes, *Basin Research* 20, p. 531-542, 2008.
- McAdoo, B.G.**, H. Fritz, K. Jackson, N. Kalligeris, J. Kruger, M. Bonte-Graptin, A. Moore, W. Rafiau, D. Billy, and B. Tiano, Solomon Islands Tsunami, One Year Later, *EOS, Transactions, American Geophysical Union* 89, no. 18, p. 169-170, 29 April 2008.
- Fritz, H., C. Blount, R. Sokoloski, J. Singleton, A. Fuggle, B.G. **McAdoo**, A. Moore, C. Grass, and B. T., Hurricane Katrina Storm Surge Reconnaissance, *Journal of Geotechnical and Geoenvironmental Engineering*, May 2008
- McAdoo, B.G.**, N. Richardson, and J. Borrero, Inundation distances and runup measurements from ASTER, QuickBird and SRTM data, Aceh Coast, Indonesia, *International Journal of Remote Sensing* 28, no. 13-14, p. 2961-2975, 2007.
- McAdoo, B. G.**, K. Jackson, J. Kruger, M. Bonte-Graptin, A. Moore, W. Rafiau, D. Billy, and B. Tiano, Geologic Survey of the 2 April 2007 Solomon Islands Earthquake and Tsunami, *UNESCO Field Report*, 2007.
- Moore, A., B.G. **McAdoo**, and A. Ruffman, Landward fining from multiple sources in a sand sheet deposited by the 1929 Grand Banks tsunami, Newfoundland, *Sedimentary Geology* 200, 336-346, 2007.
- Fritz, H., W. Kongko, A. Moore, B.G. **McAdoo** et al., Extreme runup from the 17 July 2006 Java Tsunami, *Geophysical Research Letters* 34, L12602, 2007.
- Fritz, H.C., C. Blount, R. Sokoloski, J. Singleton, A. Fuggle, B.G. **McAdoo**, A. Moore, C. Grass, and B. Tate, Hurricane Katrina storm surge distribution and field observations on the Mississippi Barrier Islands, *Estuarine and Coastal Shelf Science*, 2007.
- Fritz, H., C. Synolakis, and B. G. **McAdoo**, Maldives field survey of the 2004 Indian Ocean Tsunami, *Earthquake Spectra* 22, S3, 137-154, 2006.
- Bruce E. Jaffe, J.C. Borrero, G. S. Prasetya, L. Dengler, G. Gelfenbaum, R. Hidayat, B. Higman, E. Kingsley, Lukiyanto, B. G. **McAdoo**, A. Moore, R. Morton, R. Peters, P. Ruggiero, V. Titov, W. Kongko, and E. Yulianto, The December 26th 2004 Indian Ocean tsunami in Northwest Sumatra and Offshore Islands, *Earthquake Spectra* 22, S3, 105-135, 2006.
- McAdoo, B. G.**, L. Dengler, V. Titov, and G. Prasetya, Smong: How an oral history saved thousands on Indonesia's Simeulue Island, *Earthquake Spectra* 22, S3, 661-669, 2006.
- Lee, H.J., Locat, J., Desgagnes, P., Parsons, J.D., **McAdoo, B.G.**, Orange, D. L., Puig, P., Wong, F.L., Dartnell, P., and Boulanger, E. (in press; chapter 5). *Submarine Mass Movements on Continental Margins*, in: Nittrouer, C.A., Austin, J.A., Field, M.E., Kravitz, J.H., Syvitski, J.P.M., and Wiberg, P.L., eds., *Continental-Margin Sedimentation: from Sediment Transport to Sequence Stratigraphy*, IAS special publication 37, Blackwell Publishing Ltd., Oxford, 2006.

- Papadopoulos, G., R. Caputo, B.G. **McAdoo**, S. Pavlides, V. Karastathis, A. Fokaefs, K. Orfanogiannaki, and S. Valkaniotis, The large tsunami of 26 December 2004: Field observations and eyewitnesses' accounts from Sri Lanka, Maldives Is. and Thailand, *Earth Planets Space* 58, p. 233-241, 2006.
- LaCerva, G. and B. **McAdoo**, Simeulue Island Mangrove Rehabilitation Assessment, CARE Indonesia, 2005.
- Yalciner, A. C., D. Perincek, S. Ersoy, G. Prasetya, R. Hidayat, and B. **McAdoo**, December 26, 2004 Indian Ocean tsunami field survey (Jan. 21-31, 2005) at north of Sumatra Island., *UNESCO IOC Report*, 2005.
- Gieskes, J., C. Mahn, S. Day, J. Martin, J. Greinert, T. Rathburn, and B. **McAdoo**, A study of the chemistry of pore fluids and authigenic carbonates in methane seep environments: Kodiak Trench, Hydrate Ridge, Monterey Bay, and Eel River Basin, *Chemical Geology* 220, p. 329-345, 2005.
- McAdoo**, B. Submarine Landslide Geomorphology, *Encyclopedia of Geomorphology*, A.S. Goudie (Ed), New York: Routledge, 2004.
- McAdoo**, B. G., M. Capone, and J. Minder, Seafloor geomorphology of convergent margins: Implications for Cascadia seismic hazard, *Tectonics* 23, 2004.
- McAdoo**, B. G., and P. Watts, Tsunami hazard from submarine landslides on the Oregon continental slope. *Marine Geology* 203, p. 235-245, 2004.
- McAdoo**, B. G., L. Pratson, and D. L. Orange, Submarine landslide geomorphology, US continental slope, *Marine Geology*, 169, p. 103-136, 2000.
- McAdoo**, B. G., Mapping Submarine Landslides, in *Marine and Coastal Geographic Information Systems*, edited by Dawn Wright and Darius Bartlett, part of the Research Monographs in Geographic Information Systems series, edited by Peter Fisher, Taylor and Francis, Publishers, 1999.
- McAdoo**, B. G., Submarine Geomorphology of the Cascadia Accretionary Prism, Ph. D. Dissertation, University of California, Santa Cruz, 1999.
- Densmore, A. L., R. S. Anderson, B. G. **McAdoo**, and M. A. Ellis, Hillslope evolution by bedrock landslides, *Science*, 275, no. 5298, p. 369-372, January 17, 1997.
- Orange, D. L., B. G. **McAdoo**, E. Screaton, H. Chezar, H. Lee, M. Reid, R. Vail, Headless submarine canyons and fluid flow on the toe of the Cascadia accretionary complex. *Basin Research*, 9, p. 313-324, 1997.
- McAdoo**, B. G., D. L. Orange, E. Screaton, H. Lee, and R. Kayen, Slope basins, headless canyons, and submarine paleoseismology of the Cascadia accretionary prism. *Basin Research*, 9, p. 313-324, 1997.
- Kahn, L. M., E. A. Silver, D. Orange, R. Kochevar, B. **McAdoo**, Surficial evidence of fluid expulsion from the Costa Rica accretionary prism, *Geophysical Research Letters*, 23, no. 8, 887-890, April 15, 1996.
- McAdoo**, B. G., D. O. Orange, E. A. Silver, K. McIntosh, L. Abbott, J. Galewsky, L. Kahn, and M. Protti, Structural Observations, Costa Rica Accretionary Prism, *Geophysical Research Letters*, 23, no. 8, 883-886, April 15, 1996.
- McAdoo**, B. G. Havelock Geology: The Alpine Fault Between the Cook and Karangarua Rivers, South Island, New Zealand. Post-Graduate Diploma in Science, Geology Thesis, University of Otago, 1993.

Invited Seminars

University of Washington (2016), Massachusetts Institute of Technology (2013), University of Otago (2012), University of Canterbury (2012), National University of Singapore (2012), Extreme Geohazards Workshop (Spain, 2011), Harvard Graduate School of Design (2011), University of Pennsylvania (2011), United Nations University (2010), Norwegian Geotechnical Institute (2010), Syracuse University (2010), Yale University (2009, 2010, 2011), NOAA Pacific Marine Environmental Center (2009), University of Washington (2009), Johns Hopkins Foreign Affairs Symposium (2009), USGS (2009), CSU Monterey Bay (2009), Earth Observatory of Singapore (2009), UC Davis (2008), MBARI (2008), Stanford University (2008, 2009, 2010), University of Western Australia (2008), GNS Science New Zealand (2008), International Disaster and Risk Conference (Davos, Switzerland; 2006, 2008, 2012), Dutchess Community College (2008), University of Rhode Island (2006), Colorado College (2005), Centre Mediterrani d'Investigacions Marines i Ambientals (Barcelona, 2005), Sustainable Assets Management (Zurich, 2004), Euromargins (2004), Swiss Federal Research Institute (2004, 2005), Franklin and Marshall (2002, 2006), Columbia University (Applied Mathematics and Earth & Environmental Sciences, 2004), Rensselaer Polytechnic Institute (2002), Cornell University (2002), Lamont Doherty Earth Observatory (2001, 2007), Duke University (2000), Trinity College, Dublin (1999).

Graduate student and Post-doc advising

Sally Abbott, PhD (Food Security), Tufts University
Jennifer Baumwoll, MA (Public Policy), Webster University, Vienna
Katrin Monecke, Post-doc (Coastal Geology), Kent State University/Vassar
Eugene Morgan, PhD (Civil and Environmental Engineering), Tufts University
Nalaka Ranasinghe, PhD (Coastal Geology), Kent State University
Joshu Mountjoy, PhD (Geology), University of Canterbury (reader)
Vivienne Bryner, PhD (Science Communication, in progress), University of Otago
Marie Delalay, PhD (Geography, in progress), National University of Singapore

College Activity

Classes Taught. Oceanography; Meteorology; Earth, the Environment, and Humanity; Global Geophysics and Plate Tectonics; Structural Geology; Field Geophysics; Oil; Continental Margins; Field Geology and Ecology (Arizona, Bahamas and Bermuda); Carbon Conflicts; Culture and Environment of the Eastern Caribbean; *Terroir*; Understanding Haiti; Geohazards and Risk; Meteorology; Foundations of Science (common curriculum course for non-scientists); Applied Environmental Studies.

Committees. Department Computer Committee, Committee on College Life, Faculty Policy and Conference Committee (governance), Africana Studies Steering Committee, Environmental Sciences Steering Committee, Learning and Teaching Center Steering Committee, Committee on Diversity and Difference, Associate Chair of Earth Science and Geography, Faculty Appointments and Salary Committee (tenure and promotion), Residential and Co-Curricular Life, International and Professional Experiences, Admissions.

Other Interests

Board of Directors, Singapore Art Museum; Cycling (mountain, road); Hiking; basic German and Indonesian; Street food.