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EDUCATION

University of Southern California, *Doctor of Philosophy* 2005
Los Angeles, California
Geological Sciences

University of Southern California, *Master of Science* 2000
Los Angeles, California
Geological Sciences

University of Georgia, *Bachelor of Science* 1998
Athens, Georgia
Geology

APPOINTMENTS

Assistant Professor 2006 to present
Department of Geosciences
University of Wisconsin-Milwaukee

Adjunct Assistant Professor 2005-2006
Department of Geosciences
University of Wisconsin-Milwaukee

College Graduate Merit Fellow 2000-2005
University of Southern California

Teaching Assistant 1998-2000
Department of Earth Sciences
University of Southern California

PUBLICATIONS

Peer-reviewed articles

- 1) Chen, Z. Q., Tong, J., and **Fraiser, M. L.**, 2011, Trace fossil evidence of restoration of marine ecosystems following the end-Permian mass extinction in the Lower Yangtze region, South China: *Palaeogeography, Palaeoclimatology, Palaeoecology*.

- 2) **Fraiser, M.L.**, 2011, Paleoeology of Secondary Tierers from Low-Latitudes of Eastern Panthalassa During the Aftermath of the End-Permian Mass Extinction: *Palaeogeography, Palaeoclimatology, Palaeoecology*.
- 3) **Fraiser, M.L.**, Twitchett, R.J., †Frederickson, J.A., Metcalfe, B., and Bottjer, D.J., 2011, Gastropod evidence against the Early Triassic Lilliput Effect: Comment. *Geology*.
- 4) Henry, L.C. ‡, Isbell, J.L., Limarino, C.O., McHenry, L.J., **Fraiser, M.L.**, 2010, Mid-Carboniferous deglaciation of the Protoprecordillera, Argentina, recorded in the Agua de Jagüel paleovalley: *Palaeogeography, Palaeoclimatology, Palaeoecology*.
- 5) **Fraiser, M.L.**, Clapham, M.E., and Bottjer, D.J., 2010, Mass extinctions and changing taphonomic processes: Fidelity of the Guadalupian, Lopingian, and Early Triassic fossil records: in Bottjer, D.J., and Allison, P. A., eds., *Taphonomy: Process and Bias Through Time*, Plenum Press.
- 6) **Fraiser, M.L.**, and Bottjer, D.J., 2009, Opportunistic behavior of invertebrate marine tracemakers during the Early Triassic aftermath of the end-Permian mass extinction: *Australian Journal of Earth Sciences*, v. 56, p. 841-857.
- 7) **Fraiser, M.L.**, 2009, Guest editorial of special volume *Understanding ancient, modern and future biotic responses to environmental change: Global and Planetary Change*, v. 65, p. 105-106.
- 8) Bottjer, D.J., Clapham, M.E., **Fraiser, M.L.**, and Powers, C.M., 2008, Understanding mechanisms for the end-Permian mass extinction and the protracted Early Triassic aftermath/recovery: *GSA Today*, v. 18, p. 4-10.
- 9) Isbell, J.L., **Fraiser, M.L.**, and *Henry, L.C., 2008, Examining the complexity of environmental change during the late Paleozoic and early Mesozoic: *Palaios*, v. 23, p. 267-269.
- 10) **Fraiser, M.L.**, and Bottjer, D.J., 2007, When bivalves took over the world: *Paleobiology*, v. 33 (3), p. 397-413.
- 11) **Fraiser, M.L.**, and Bottjer, D.J., 2007, Elevated atmospheric CO₂ and the delayed biotic recovery from the end-Permian mass extinction: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 252, p. 164-175.
- 12) Clapham, M.E., Bottjer, D.J., Jamet, C.M., Bonuso, N., **Fraiser, M.L.**, Marengo, P.J., Dornbos, S.Q., and Pruss, S.B., 2006, Phanerozoic trends in ecological dominance: *Palaios*, v. 21, p. 431-441.
- 13) **Fraiser, M.L.**, and Bottjer, D.J., 2005, Fossil preservation during the aftermath of the end-Permian mass extinction: Taphonomic processes and palaeoecological signals: in Morrow, J., Over, D.J., Wignall, P.B., eds., *Understanding Late Devonian and Permian-Triassic Biotic and Climatic Events: Towards an Integrated Approach, Developments in Paleontology and Stratigraphy Volume 20*, p. 299-311.
- 14) **Fraiser, M.L.**, and Bottjer, D.J., 2005, Restructuring of benthic level-bottom shallow marine communities due to prolonged environmental stress during the aftermath of the end-Permian mass extinction: *Comptes Rendus PALEVOL*, v. 4, p. 515-523.
- 15) **Fraiser, M.L.**, Twitchett, R.J., and Bottjer, D.J., 2005, Unique microgastropod biofacies in the Early Triassic: Indicator of long-term biotic stress and the pattern of biotic recovery after the end-Permian mass extinction: *Comptes Rendus PALEVOL*, v.

4, p. 475-484.

16) **Fraiser, M.L.**, and Bottjer, D.J., 2004, The non-actualistic Early Triassic gastropod fauna: A case study of the Lower Triassic Sinbad Limestone Member: *Palaios*, v. 19 (3), p. 259-275.

17) Pruss, S.B., **Fraiser, M.L.**, and Bottjer, D.J., 2004, The proliferation of Early Triassic wrinkle structures: Implications for environmental stress following the end-Permian mass extinction: *Geology*, v. 32, p.461-464.

18) **Fraiser, M.L.**, and Corsetti, F. A., 2003, Neoproterozoic carbonate shrubs: interplay of microbial activity and unique environmental conditions during post-Snowball Earth oceans: *Palaios*, v. 18 (4-5), p.378-387.

FUNDING

UWM Research Growth Initiative

Testing the End-Permian Mass Extinction Recovery Paradigm, Principal Investigator, \$67,663, awarded, 2010-2011.

National Science Foundation, Sedimentary Geology and Paleobiology

Collaborative Research: New Chemo- and Biostratigraphic Framework for the Lower Triassic of the Western U.S.: Towards a high-resolution understanding of Early Triassic events, Co-Principal Investigator, awarded, 09/01/09-08/31/11, \$69,240.00.

Office of Undergraduate Research (OUR) Stipend for Undergraduate Research Fellows (SURF): *Paleoecology of Brachiopods During the Aftermath of the end-Permian Mass Extinction*, Principal Investigator, Scott Schaefer undergraduate, awarded, Spring 2009.

UWM Center for Latin American and Caribbean Studies

Faculty Travel Award Competition: *Biotic and Sedimentologic Effects of Widespread Glaciation during the Late Paleozoic Ice Age Recorded in Patagonia, Argentina*, awarded, \$500.

UWM Center for Latin American and Caribbean Studies

Faculty Travel Award Competition: *Understanding the Late Paleozoic Paleoclimate Record of Western Argentina and its Implications for Future Climate Change*, awarded, \$500.

National Science Foundation, International Research Experience for Students

Collaborative IRES: Integrated Research & Educational Training of Geoscience Students in Deep-Time Paleoclimatology, Western South America co-Principal Investigator, awarded, 08/15/08-08/14/11, \$75,000.

Collaborative International Geological Correlation Programme (IGCP)

Restoration of marine ecosystems following the Permian-Triassic mass extinction: Lessons for the present, co-Principal Investigator, awarded, 2008-2012.

PRESS RELEASES AND MEDIA COVERAGE

“Most Devastating Mass Extinction Followed Long Bout of Sea Sickness”

News of the Week, Science 322, p. 359.

Top 25 Hottest Articles, October-December 2007, *Palaeogeography, Palaeoclimatology, Palaeoecology*, #11: *Elevated Atmospheric CO₂ and the Delayed Biotic Recovery from the End-Permian Mass Extinction*

Science News, November 17, 2007

“Back from the Dead?”

“UWM Today”, WUWM October 11, 2007

“When the Oceans Turned Toxic: Paleobiologist Studies how Elevated Carbon Dioxide Affected Ancient Marine Life”

“Lake Effect”, WUWM, October 1, 2007

“Mass Extinction”

“The Bivalves World”, September 1, 2007

Marine Animal News (<http://marineanimalnews.blogspot.com/2007/09/bivalves-world.html>)

“When Bivalves Ruled The World”, August 31, 2007

“Today’s Top Stories” on ScienceDaily.com (<http://www.sciencedaily.com>)

“When the Oceans Turned Toxic: Paleobiologist Studies how Elevated Carbon Dioxide Affected Ancient Marine Life”, August, 2007

UWM Featured Story by Laura L. Hunt

PROFESSIONAL AFFILIATIONS

American Association for the Advancement of Science (AAAS)

Geological Society of America (GSA)

The Palaeontological Association

The Paleontological Society (PS)

The Society for Sedimentary Geology (SEPM)