

Leigh M. Fall

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Education

- 2010 Ph.D. Dept. of Geology and Geophysics, Texas A&M University, College Station
Title: *Processes Influencing the Diversity of Middle Permian Brachiopods in the Bell Canyon Formation of the Delaware Basin (west Texas, Guadalupe Mountains National Park)*
Advisor: Dr. Thomas D. Olszewski
- 2003 M.S. Dept. of Geological Sciences, Indiana University, Bloomington
Title: *Quantification of Coiling in Rudist Bivalves and Assessment of Water-Energy Levels; Middle to Basal Upper Albian, Edwards Formation, Texas*
Advisor: Dr. Claudia C. Johnson
- 1999 B.S. Dept. of Earth and Planetary Sciences, University of New Mexico, Albuquerque

Publications

Published Papers

Fall, L. M., and Olszewski, T. D., 2010, Environmental disruptions influence taxonomic composition of brachiopod paleocommunities in the Middle Permian Bell Canyon Formation (Delaware Basin, west Texas): *Palaios*, v. 25, p. 247–259.

Alroy, J., Aberhan, M., Bottjer, D. J., Foote, M., Fürsich, F. T., Harries, P., Hendy, A. J. W., Holland, S. M., Ivany, L. C., Kiessling, W., Kosnik, M. A., Marshall, C. R., McGowan, A. J., Miller, A. I., Olszewski, T. D., Patzkowsky, M. E., Peters, S. E., Villier, L., Wagner, P. J., Bonuso, N., Borkow, P. S., Brenneis, B., Clapham, M. E., **Fall, L. M.**, Ferguson, C. A., Hanson, V. L., Krug, A. Z., Layou, K. M., Leckey, E. H., Nürnberg, S., Powers, C. M., Sessa, J. A., Simpson, C., Tomasovych, A., and Visaggi, C. C., 2008, Phanerozoic trends in the global diversity of marine invertebrates: *Science*, v. 321, p. 97–100.

Fall, L. M., and Steinmetz, J. C., 2008, Bibliography of Indiana Paleontology, 1831 through 2006: Indiana Geological Survey Occasional Paper 68, 91 p., CD.

Papers in Preparation

Fall, L. M., and Olszewski, T. D., Effects of basinal disruptions on metacommunity processes and structure – submitting to *Geology* August 2010

Fall, L. M., and Olszewski, T. D., Sequence Stratigraphic Model for the Slope of the Permian Reef Complex in the Delaware Basin (Capitanian, Bell Canyon Formation, Guadalupe Mountains National Park) – submitting to Journal of Sedimentary Research

Fall, L. M., Utilizing changes in generic diversity of rugose and scleractinian corals as indicators of modern reef extinction.

Steinmetz, J. C., and **Fall, L. M.,** A Field Guide to the Fossils of Indiana: Indiana Geological Survey Circular.

Abstracts

Fall, L. M., and Olszewski, T. D., 2009, Changes in Ecological Processes of Local Brachiopod Paleocommunities in the Delaware Basin (West Texas): Geological Society of America Abstracts with Programs, v. 41, no. 7, p. 507.

Fall, L. M., and Olszewski, T. D., 2009, Consistency in Ecological Processes of Local Brachiopod Paleocommunities in the Delaware Basin (West Texas): 9th North American Paleontological Convention Abstracts, no. 3, p. 426.

Fall, L. M., and Olszewski, T. D., 2008, Diversity dynamics of brachiopods in the Delaware Basin (West Texas) prior to the end-Guadalupean extinction: Geological Society of America Abstracts with Programs, v. 40, no. 6, p. 403.

Fall, L. M., Olszewski, T. D., and Marcus, S. A., 2007, Local brachiopod diversity in the Pinery and Rader Members of the Bell Canyon Formation, Guadalupe Mountains National Park, West Texas: Geological Society of America Abstracts with Programs, v. 39, no. 6. (**1st Place**)

Fall, L. M., Olszewski, T. D., and Marcus, S. A., 2006, Reef to basin sedimentological processes in the Lamar Limestone (Bell Canyon Formation), Guadalupe Mountains National Park, West Texas: Geological Society of America Abstracts with Programs, v. 38, no. 7. p. 74.

Fall, L. M., 2005, Famennian rugose corals live it up: increased longevity of rugose corals following the end-Frasnian extinction: Geological Society of America Abstracts with Programs, v. 37, no. 7, p. 384.

Fall, L. M., 2004, Utilizing changes in generic diversity of rugose and scleractinian corals as indicators of modern reef extinction: Geological Society of America Abstracts with Programs, v. 36, no. 5, p. 365.

Fall, L. M., Kauffman, E. G., and Johnson, C. C., 2002, Quantification of coiling in rudist bivalves: Geological Society of America Abstracts with Programs, v. 34, no. 6, p. 538.

Johnson, C. C., **Fall, L. M.**, Jamet, C. M., and Slade, L. L., 2001, Stratigraphic and paleobiologic analysis of thrombolite megastructures, St. Louis Limestone, Monroe County, Indiana: Geological Society of America Abstracts with Programs, v. 33, no. 6, p. A12.

Fall, L. M., and Johnson, C. C., 2000, Evaluation of methods for morphometric analyses of rudist bivalves: Geological Society of America Abstracts with Programs, v. 32, no, p. A13.

Professional Experience

5/2010–present *Post-Doctoral Research Scientist*, University of Arizona, Tucson

8/2009–12/2009 *Teaching Assistant*, Texas A&M University, College Station

- Instructed geology majors in laboratory settings in Paleobiology (GEOL 305)

8/2008–8/2009 *Research Assistant*, Texas A&M University, College Station

8/2007–12/2007 *Teaching Assistant*, Texas A&M University, College Station

- Instructed geology majors in laboratory settings and taught weekly fossil group lectures in Paleobiology (GEOL 305)

8/2006–12/2006 *Teaching Assistant*, Texas A&M University, College Station

- Instructed geology majors in laboratory setting in Paleobiology (GEOL 305)

5/2006–8/2006 *Paleobiology Database (PBDB) Enterer*, Texas A&M University, College Station

- Collected and entered global, collection-based occurrence and taxonomic data of Permian age into web-based, NSF-funded database

8/2005–12/2005 *Teaching Assistant*, Texas A&M University, College Station

- Instructed geology majors in laboratory settings in Paleobiology (GEOL 305)

5/2005–8/2005 *Paleobiology Database (PBDB) Enterer*, Texas A&M University, College Station

- Collected and entered global, collection-based occurrence and taxonomic data of Permian age into web-based NSF-funded database

8/2004–5/2005 *Teaching Assistant*, Texas A&M University, College Station

- Instructed students in laboratory setting in Historical Geology (GEOL 106)

5/2003–7/2004 *Research Assistant*, Indiana Geological Survey, State Geologist, Bloomington

- Worked on bibliography on Indiana fossils and field guide for publication

1/2003–5/2003 *Research Assistant*, Geological Sciences, Indiana University, Bloomington

- Assisted Chris Maples in preparation, organization, and operation of NSF-Sponsored workshop entitled “Preservation of Scientific Research Cores and Collections”, held January 11 in Bloomington, IN
- Assisted Lynn Soreghan, Judy Totman-Parrish, and Chris Maples in operation of NSF-sponsored workshop entitled “Paleoclimate Workshop”, held May 16-17 in Washington, DC

8/2000–9/2002 *Research Assistant*, Geological Sciences, Indiana University, Bloomington

- Participated in small group field excursions to Texas and Puerto Rico
- Compiled and formatted bibliography; edited and created figures for research publication
- Prepared thin sections and polished rock slabs

8/1999–5/2000 *Associate Instructor*, Geological Sciences, Indiana University, Bloomington

- Instructed students in laboratory setting in Prehistoric Life and Earthquakes and Volcanoes, both 100-level non-majors courses

6/1998–7/1998 *Lab Assistant*, Earth & Planetary Sciences, University of New Mexico, Albuquerque

- Prepared core samples for paleomagnetic dating
- Picked conodonts for geochemical analyses

Awards

- 2010 Marathon Scholarship, Department of Geology and Geophysics, \$12,000, Texas A&M
- 2009 Questar Scholarship, Department of Geology and Geophysics, \$5,000, Texas A&M University
- 2009 *First place* (Ph.D. research) in the 3rd Annual Texas A&M University, Dept. of Geology and Geophysics Research Symposium
- 2008 ConocoPhillips Fellowship, Department Geology and Geophysics, \$20,000, Texas A&M University
- 2008 *First place* (Ph.D. research) in the 2nd Annual Texas A&M University, Dept. Geology and Geophysics Research Symposium
- 2007 ConocoPhillips Fellowship, Department Geology and Geophysics, \$20,000, Texas A&M University
- 2007 *First place* in the 1st Annual Paleontological Society student poster award
- 2006 Chevron Fellowship, Department Geology and Geophysics, \$16,000, Texas A&M
- 1998 Harry and Mabel Leonard Scholarship, Department of Earth and Planetary Sciences, University of New Mexico (Undergraduate)
- 1997 Harry and Mabel Leonard Scholarship, Department of Earth and Planetary Sciences, University of New Mexico (Undergraduate)

Research Grants

- 2006 Geological Society of America Student Research Grant, \$2,000 (Ph.D. research)
- 2006 Paleontological Society Grant, \$500 (Ph.D. research)
- 2006 Sigma Xi Grants-In-Aid of Research, \$800 (Ph.D. research)
- 2000 Geological Society of America Student Research Grant, \$1,260 (M.S. research)
- 2000 Paleontological Society Grants-In-Aid, \$500 (M.S. research)
- 2000 Sigma Xi Grants-In-Aid of Research, \$800 (M.S. research)

Academic Service

- 2008 Co-convener, Session T42–Breaking the Curve: Historical Development, Current State, and Future Prospects for Understanding Local and Regional Processes Governing Global Diversity I and II, 2008 GSA Annual Meeting, Houston
- 2007–2008 Student Representative on the Sedimentary Geology Search Committee, Department of Geology & Geophysics, Texas A&M University
- 2007–2008 Member of planning committee for the 9th Annual Ecological Integration Symposium (EIS), Interdisciplinary Research Program in Ecology and Evolutionary Biology, Texas A&M University
- 2006–2007 Event Coordinator, Geology and Geophysics Graduate Student Council (GGGSC), Texas A&M University
- 2005–2006 President, Geology and Geophysics Graduate Student Council (GGGSC), Texas A&M University
- 2005 Co-Chair, Session 169–Paleontology V: Extinction–Theory and Observation, 2005 GSA Annual Meeting, Salt Lake City

Field Experience

- Assisted in leading field trip, Special Topics in Geobiological Research Methods, Brushy Canyon Formation, Guadalupe Mountains, Guadalupe Mountains National Park, Texas, Shell sponsored field trip, September 19–26, 2009
- Assisted in organizing and leading field trip, Fundamentals of Stratigraphic Analysis of Shallow Marine and Fluvial Reservoirs, Book Cliffs, Utah, Chevron sponsored field trip, May 10–17, 2008
- Dissertation work, Pinery, Rader, Lamar, and Reef Trail Members of the Bell Canyon Formation, Guadalupe Mountains, Guadalupe Mountains National Park, Texas, April 5–May 13, 2007
- Dissertation work, Rustler Formation and Lamar Limestone and Reef Trail Members of the Bell Canyon Formation, Guadalupe Mountains, Guadalupe Mountains National Park, Texas, April 25–May 31, 2006
- Field assistant, Oligocene reef, Lares Limestone, Puerto Rico, August 7–August 16, 2002
- Field assistant, Cretaceous reef, Puerto Rico, May 22–June 2, 2001
- Master's work, Edwards Formation, Texas, October 5–October 21, 2000

Academic-Related Experience

- Marine Invertebrate Zoology Course, Friday Harbor Laboratories, University of Washington, San Juan Island, Washington, June 13, 2005–July 16, 2005
- Grant Writing Seminar for research investigators, Office of Vice President for Research/Office of Proposal Development, Texas A&M University, August 26, 2004

Industry-Related Experience

- ExxonMobil/BP Sequence Stratigraphy Short Course, Geological Society of America Annual Meeting, October 26–27, 2002
- ExxonMobil Advanced Stratigraphic Concepts School, Field Guide to the Permian of the Guadalupe Mountains, West Texas and New Mexico, March 25–30, 2001
- StratWorks by Landmark

Professional Society Memberships

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| 2005–present | American Association of Petroleum Geologists |
| 2002 | Sigma Gamma Epsilon |
| 2000–present | Paleontological Society |
| 2000–present | Society for Sedimentary Geology |
| 1994–present | Geological Society of America |
| 1995 | Phi Theta Kappa Society |

Community Service

- 4/2009 Texas Science Olympiad, College Station, Texas
- 9/2003 Falls of the Ohio Fossil Festival, Louisville, Kentucky, Presentation
- 6/2003 Rock and Gem Show, Monroe County, Indiana, Presentation
- 10/2000 Brownie Science and Math Event, Bloomington, Indiana
- 9/2000 WonderLab Family Fun Fest, Bloomington, Indiana
- 3/2000 Science Olympiad, Bloomington, Indiana
- 5/1994 Savannah Science Museum, *Caretta* (Loggerhead Sea Turtle) Research Project