

Lynn S. Fichter

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A. Professional Preparation

B.S. 1965, Juniata College, Huntingdon, Pennsylvania
M.S. 1967, University of Michigan, Ann Arbor
Ph.D. 1972, University of Michigan, Ann Arbor

B. Appointments

- I. 1974 - Present: Professor of Geology (since 1989), James Madison University, Harrisonburg, Virginia.
Courses include: ❖ Environment: Earth (physical geology) ❖ History and Philosophy of the Geosciences, ❖ Historical Geology, ❖ Geological Evolution of North America, ❖ Stratigraphy, Structure and Tectonics, ❖ Advanced Structure, Stratigraphy and Tectonics, ❖ Vertebrate Paleontology, ❖ Environmental Systems Theory
- II. 1973 - 1974: Greensboro Day School, Greensboro, North Carolina. Taught Earth Science and Biology.
- III. 1971 - 1972: Assistant Professor of Geology, Michigan State University, East Lansing, Michigan.
One year terminal appointment to teach Physical and Historical Geology.
- IV. 1965 - 1971: Teaching Fellow and Research Assistant, Department of Geology and Museum of Paleontology, University of Michigan, Ann Arbor.
- V. 1967 - 1968: Paleontologist with the Omo Research Expedition, Ethiopia and Kenya, Africa. A multidisciplinary expedition under the direction of Dr. F. C. Howell.

C. Awards

2006 - Distinguished Teaching Award; College of Science and Mathematics, James Madison University
2006 - General Education Distinguished Teaching Award: General Education Program: James Madison University

D. Publications/Presentations

- Fichter, L. S., 2015, IT'S THE SYSTEM! YES. BUT WHAT KIND OF SYSTEM: oral presentation: abstract submitted and accepted at GSA Baltimore Annual Meeting.
- Fichter, L.S., and Diecchio, R.J., 2015, A RIFT-TO-DRIFT SUBSIDENCE-ACCOMMODATION-TIME- SERIES (SATS) MODEL: Topical poster session: abstract submitted and accepted at GSA Baltimore Annual Meeting.
- Diecchio, Richard J., and Fichter, L.S., 2015: A THEORETICAL FORELAND BASIN SUBSIDENCE- ACCOMMODATION-TIME- SERIES (SATS) MODEL WITH APPLICATION TO THE TACONIC SEQUENCE OF NORTHERN VIRGINIA: Discipline poster session: abstract submitted and accepted at GSA Baltimore Annual Meeting.
- Haynes, John T., Fichter, L. S., Durst, Thomas R., 2015, Petrographic similarities between framework grains in Ordovician arenites from the Blount and Queenston molasse of the Taconic Orogeny, Virginia Appalachians, oral presentation GSA, Chattanooga, TN spring meeting.
- Fichter, Lynn S. and Whitmeyer, Steve, 2014, Integrating Structure, Stratigraphy And Tectonics In Undergraduate BA and BS Curricula: GSA oral presentation, Southeast Section, Blacksburg, Virginia.
- Fichter, L. S., Eric Pyle, Steve Whitmeyer, 2014, Field Trip Guide: Integrating Stratigraphy, Structure and Tectonics on the Outcrop A Geologic Transect from the Blue Ridge, Across Page and Shenandoah Valleys, and into the Eastern Valley and Ridge, NAGT Spring, 2014 Meeting
- Pyle, Eric J., Courtier, Anna M., Fichter, Lynn S., Lucas, Stephen, and Jackson, Andy, 2013, Integration Of Mathematics And Earth Science In Middle And High School: The MAESTRO Program: oral presentation, 2013 GSA Annual Meeting in Denver.
- Fichter, L. S., Eric Pyle, 2013, Thinking Strategies For Teaching About Evolving Complex Earth Systems: oral session, 2013 GSA Annual Meeting in Denver.

- Whitmeyer, S.J., Fichter, L.S., Diecchio, R.2, Heller, M.J., Eaton, L.S., Cross, A., Coiner, L., Biggs, T.H., 2012, Geology of Page Valley: Stratigraphy, Structure, and Landscape Evolution, 42nd Annual Virginia Geological Field Conference, September 28-29, 2012
- Fichter, L. S., Baedke, S.J., 2011, Lessons and Applications of Chaos and Complexity to the Geosciences: oral presentation, GSA Annual Meeting and Exposition; Minneapolis.
- Fichter, L. S., 2010, Just Because its Complex Does Not Make it a Complex System, Keynote Address: Developing Student Understanding of Complex Systems in the Geosciences, The Cutting Edge - Professional Development for Geoscience Faculty, Carleton College, (https://d320goqmya1dw8.cloudfront.net/files/NAGTWorkshops/complexsystems/workshop2010/just_because_its_complex.pdf.)
- Fichter, L. S., Pyle, E. J., & Whitmeyer, S.J. (2010), Expanding evolutionary theory beyond Darwinism with elaborating, self-organizing, and fractionating complex evolutionary systems. *Journal of Geoscience Education*, 58(2), 58-64 (<http://nagt-jge.org/doi/abs/10.5408/1.3534853>).
- Fichter, Lynn S., Pyle, E.J., and Whitmeyer, S.J., 2010, Expanding evolutionary theory beyond Darwinism with elaborating, self-organizing, and fractionating complex evolutionary systems, web site: <http://csmres.jmu.edu/geollab/complexevolutionarysystems/Index.html>
- Fichter, L. S., Pyle, E. J., & Whitmeyer, S.J. (2010), Strategies and rubrics for teaching chaos and complex systems theories as elaborating, self-organizing, and fractionating evolutionary systems. *Journal of Geoscience Education*, 58(2), 65-85 (<http://nagt-jge.org/doi/abs/10.5408/1.3534849>).
- Fichter, L. S., Pyle, E. J., 2010, Chaos/Complex Systems Theory Learning Progression, Developing Student Understanding of Complex Systems in the Geosciences, The Cutting Edge - Professional Development for Geoscience Faculty, Carleton College.
- Fichter, L. S., 2010, Strategies and Rubrics for Teaching Complex Systems Theory to Novices, AGU oral presentation, San Francisco (<http://slideplayer.com/slide/4221402/>).
- Fichter, L. S., Pyle, E. J., 2010, Evolution of Complex Earth Systems, Developing Student Understanding of Complex Systems in the Geosciences, The Cutting Edge - Professional Development for Geoscience Faculty, Carleton College.
- Fichter, Lynn S., Steven J. Whitmeyer, Christopher Bailey, William Burton, 2010, Stratigraphy, Structure, and Tectonics: An East to West Transect of the Blue Ridge and Valley and Ridge Provinces, The Mid-Atlantic Shore to the Appalachian Highlands: Field Trip Guidebook for the 2010 Joint Meeting of the Northeastern and Southeastern GSA Sections of Northern Virginia and West Virginia.
- Fichter, Lynn S., Steven J. Whitmeyer, Christopher Bailey, William Burton, 2010, Stratigraphy, Structure, and Tectonics: An East to West Transect of the Blue Ridge and Valley and Ridge Provinces, The Mid-Atlantic Shore to the Appalachian Highlands: Field Trip Guidebook for the 2010 Joint Meeting of the Northeastern and Southeastern GSA Sections of Northern Virginia and West Virginia.
- Fichter, L.S., Whitmeyer, S.J., and Pyle, E.J., 2009, Earth Systems Do Not Evolve to Equilibrium, GSA Houston; Teaching and Learning about Complex Earth Systems: Effective Strategies in Undergraduate Classrooms and Teacher Development Programs; GSA Geoscience Education Division (T174).
- Whitmeyer, S.J., Fichter, L.S., and Pyle, E.J., 2007, New directions in Wilson Cycle concepts: Supercontinent and Tectonic Rock Cycles, *Geosphere*, Dec; v. 3; no. 6, p. 511-526.
- Shufeldt, Owen1, Stiefel, David, Fichter, Lynn, Pyle, Eric J. and Whitmeyer, Steve, 2007, Interactive Scientific Modeling Of An Island Arc System: Expanding Geoscience Education: oral presentation, GSA Northeastern Section - 42nd Annual Meeting.

- Whitmeyer, S.J., Fichter, L.S., and Pyle, E.J., 2006, GSA Eastern Meeting: Oral Session: Philadelphia: 3D and 4D Animations in Geoscience Education: Moving Towards and Interactive Environment:
- Whitmeyer, Steve, and Eric Pyle, Lynn S. Fichter, 2006, Penrose Conference Poster Session: Unlocking 3D Earth Systems - Harnessing New Digital Technologies to Revolutionize Multi-Scale Geologic Models.
- Fichter, Lynn S., 2005, How to teach students to recognize a system when they see it: workshop given at the Earth Systems Processes 2 Meeting, Calgary, Canada.
- Fichter, Lynn S., and David Poche, 2001, Ancient Environments and the Interpretation of Geologic History: 3rd Edition, Macmillan Publishing Company.
- Fichter, Lynn S., 1996, Tectonic Rock Cycles: Journal of Geoscience Education, Vol. 44, pp 134-148.
- Fichter, Lynn S., and Richard J. Diecchio, 1993, Evidence for the Progressive Closure Of the Proto-Atlantic Ocean in the Valley and Ridge Province Of Northern Virginia and Eastern West Virginia: Field Trip Guide, National Association of Geology Teachers - Eastern Section Meeting, James Madison University.
- Fichter, Lynn S., G.T. Farmer, and J.S. Clay, 1991, Earth Materials and Earth Processes: 3rd Edition, Macmillan Publishing Company, 301 p.
- Fichter, Lynn S., 1988, Process-Response Models and the Nature of Science: Journal of Geological Education, v. 36, p. 72-78.
- Fichter, Lynn S., 1988, Teaching Science to the Liberal Studies Student: Journal of College Science Teaching, v. 17(4), p. 289-294.
- Fichter, Lynn S., 1987, Teaching the Deep Structure: Journal of College Science Teaching, v. 17(1), p. 11, 87-88.
- Fichter, Lynn S., 1987, The Design and Use of the Stratigraphic Strip Log: Journal of Geological Education, v. 35, p. 71-80.
- Sherrod, Brian, and Fichter, L.S., 1986, Sedimentology and paleoenvironments in the upper Martinsburg and "Cub" sandstone at Catherine's Furnace: [abs.] Virginia Academy of Sciences, James Madison University.
- Fichter, Lynn S., and Diecchio, Richard J., 1986, The Taconic sequence in the northern Shenandoah Valley, Virginia: Geological Society of American Centennial Field Guide - Southeastern Section, p.73-78.
- Fichter, Lynn S., 1986, The Catskill clastic wedge (Acadian Orogeny) in eastern West Virginia and western Virginia: Geological Society of American Centennial Field Guide - Southeastern Section, p. 91-96.
- Fichter, Lynn S., and Diecchio, Richard J., 1986, Stratigraphic model for the timing of the opening of the Proto-Atlantic Ocean in northern Virginia: Geology, v. 14, p. 307-309.
- Fichter, Lynn S., and Sander, John E., 1985, On 'Scientific Creationism': article in the Daily News Record, Harrisonburg, Virginia, Tuesday, January 29, 1985.
- Fichter, Lynn S., and Diecchio, Richard J., 1984, A model for the opening of the Proto-Atlantic in northern Virginia (abs.): Joint NE-SE meeting Geological Society of America, Lexington, Kentucky.
- Fichter, Lynn S., and Poche', David, 1979, Sedimentary paleoenvironments and the Paleozoic evolution of the Appalachian geosyncline in the northern Shenandoah valley: National Association of Geology Teachers - Eastern Section, [in Exline, Joseph D., ed., Guidebook for Field Trips: Division of Sciences and Elementary Administration, Department of Education, Commonwealth of Virginia, Richmond, Virginia 23216].
- Fichter, Lynn S., 1972, The North American beavers of the genus *Castor*, post-incisor dentition - a multivariate study: Unpublished Ph.D. dissertation, University of Michigan, Ann Arbor.

Fichter, Lynn S., 1969, Geographical Distribution and Osteological variation in fossil and recent specimens of Kinosternon (Chelonia): Journal of Herpetology, v. 3(3-4), p. 113-119.

Howell, F.C., Fichter, L.S., and Wolff, R., 1969, Fossil camels in the Omo Beds, southern Ethiopia: Nature, v. 223, p.150-152.

Howell, F.C., Fichter, L.S., and Eck, G., 1969, Vertebrate Assemblages from the Usno Formation, White Sands and Brown Sands localities, lower Omo Basin, Ethiopia: Quarternaria 11:65-88.

E. Major Web Sites: All linked at: <http://csmres.jmu.edu/geollab/Fichter/Fichter/websites.html>

1. The Geological Evolution of Virginia and the Mid-Atlantic Region
2. Sites on: Minerals, Igneous Rocks, Sedimentary Rocks, Metamorphic Rocks
3. A Plate Tectonic Primer
4. The Wilson Cycle: The Opening and Closing of an Ocean Basin
5. A Plate Tectonic Rock Cycle

6. Teaching Chaos and Complex Evolutionary Systems Theories at the Introductory Level:
<http://csmres.jmu.edu/geollab/complexevolutionarysystems/Index.html>