

STEPHEN ANDREW LESLIE

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University of Arkansas at Little Rock
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EDUCATION

Ph.D. Geology, The Ohio State University, June 1995

Dissertation: Upper Middle Ordovician conodont biofacies distribution patterns in eastern North America and northwestern Europe: Evaluations using the Deicke, Millbrig and Kinnekulle K-bentonite beds as time planes.

M.S. Geology, University of Idaho, May 1990

Thesis: The Late Cambrian-Middle Ordovician Snow Canyon Formation of the Valmy Group, Northeastern Nevada.

B.S. Geology, Bowling Green State University, May 1988, Cum Laude
Minor in Classical Studies

GEOLOGY EMPLOYMENT

7/04- present **Chairperson**, Department of Earth Sciences, University of Arkansas at Little Rock.

8/02 -present **Director** of the Master of Science in Integrated Science and Mathematics Program, College of Science and Mathematics

8/05 - present **Professor with tenure**, Department of Earth Sciences, University of Arkansas at Little Rock.

8/00 -7/05 **Associate Professor with tenure**, Department of Earth Sciences, University of Arkansas at Little Rock.

8/96 -7/00 **Assistant Professor**, Department of Earth Sciences, University of Arkansas at Little Rock.

6/95 - 8/96 **Postdoctoral Research Scientist** at The Ohio State University.

1/95 - 3/96 **Lecturer** at Otterbein College.

6/95 - 8/95 **Lecturer** at The Ohio State Univ.-Marion & Marion Correctional Institution

9/94 - 12/94 **Lecturer** at The Ohio State Univ.-Marion & Marion Correctional Institution

9/93 - 6/94 **Doctoral Fellow** at The Ohio State University.

6/94 - 9/94 **Teaching Assistant** at The Ohio State University, Geology Field camp, Ephraim, Utah.

9/91 - present **Private Consultant**

9/91 - 6/93 **Research Assistant** at The Ohio State University.

6/91 - 9/91 **Temporary Exploration Geologist** with Independence Mining Co., Elko, Nevada.

9/90 - 6/91 **Teaching Assistant** at The Ohio State University.

5/90 - 9/90 **Field Geologist** with the Idaho Geological Survey.

8/89 - 5/90 **Teaching Assistant** at the University of Idaho.

5/89 - 8/89 **Temporary Mine Geologist** with Freeport-McMoRan Gold, Elko, NV.

5/88 - 12/88 **Temporary Mine Geologist** with Freeport-McMoRan Gold, Elko, NV.

MILITARY SERVICE

5/85 - 5/93 U.S. Navy Reserve (Honorably Discharged)

AWARDS AND SCHOLARSHIPS

- College of Science and Mathematics Excellence in Research Award, 1st place, University-wide finalist, 2006
- College of Science and Mathematics Excellence in Teaching Award, 1st place, University-wide finalist, 2001
- College of Science and Mathematics Excellence in Teaching Award, 3rd place, 2000
- Outstanding Senior Ph.D. Student, Spieker Book Award, The Ohio State University, Department of Geological Sciences, 1994.
- Best Student Paper, 27th Annual Meeting of the Pander Society at NCGSA, 1994.
- Shell Doctoral Fellowship, The Ohio State University, 9/93 - 6/94.
- Best Student Paper, 26th Annual Meeting of the Pander Society at NCGSA, 1993.
- Outstanding Student Research Award, The Geological Society of America, 1992.
- Harold T. and Claudia Stearns Scholarship, University of Idaho, 8/89 - 5/90.

STUDENTS SUPERVISED

Undergraduate Student Research Supervised

Brandy Rakes	The Upper Ordovician GSSP site at Black Knob Ridge, OK 2006
Georgia Birdsall	Fossils of the Mazon Creek Flora 2005
Lisa Guttery	Conodont biostratigraphy of Dolly Ridge, West Virginia, 2004-2005
Lyle Lewis	Conodonts of the Black Knob Ridge Section, Oklahoma, 2004-2005
John Spenser	Paleoflora of Poteau Mt., AR, 2004
Georgia Birdsall	Paleoflora of Poteau Mt., AR, 2004
Lisa Guttery	Conodonts from the Blakely Sandstone, Ouachita Mountains, 2003
Vickie Terry	Geology and micropaleontology of the Brassfield Limestone, 2003
Danny Jimenez	Plant and Insect Fossils from the Green River Formation 2002
Jeremy Gannaway	Plant and Insect Fossils from the Green River Formation 2002
Autumn Fernald	Bivalved arthropods from the Mazarn Shale, 2001-2002
Scott Ausbrooks	Angular unconformities in "flat-lying" rocks?, 2000-2001
Leah Lucio	Laboratory techniques in paleontology, 2000
Joyce Presley	Epibionts on <i>Rugosochonetes chesterensis</i> , 2000
Jonathan Lovett	The Cambrian Explosion and the Burgess Shale, 2000
Seth Young	Upper Middle Ordovician conodont biofacies, 1999-2000
Seth Young	Possible K-bentonite beds in Arkansas, 1999-2000
Dorothy Lakey	Mosasaurs of the Arkadelphia Marl, 1999
Peta Elskén	Dinosaur nesting behavior: a phylogenetic view, 1999
Cathy Clegg-Scala	Carbonate petrography of the Joachim Dolomite, 1998
Stephanie Veach	Chonetid brachiopods from the Pitkin Limestone, 1998
Cathy Clegg-Scala	Carbonate petrography, 1998
Peter Beland	Ordovician conodonts, 1998
Dorothy Lakey	Clasic dikes in Ordovician rocks of northern Arkansas, 1998
Cathy Clegg-Scala	Ordovician conodonts of northern Arkansas, 1997
Peter Beland	Conodonts in the Joachim Dolomite, 1997
Shawn Jackson	Hawaii and global change, 1997

Graduate Students Supervised as Thesis Advisor

Cathy Riley	Conodont biostratigraphy of the Cotter-Powell interval in north-central Arkansas (Spring 2005) MS Integrated Science and Mathematics program, Geology-Biology option.
Dorothy Lakey	A Late Cretaceous (Santonian) <i>Enchodus petrosus</i> from the Marlbrook Formation in Arkadelphia, Arkansas (Fall 2004) MS Integrated Science and Mathematics program, Geology-Biology option.

FUNDED GRANTS

Petroleum Research Fund, Collaborative Research: Refining the Ordovician Time Scale - An Integrated Biostratigraphic Approach, 2006-2008. \$50,000, \$18,890 to Leslie (CO-PI D. Goldman, Univ. of Dayton.)

National Science Foundation Collaborative Research: Automated Sequencing of the Fossil Record: Improved Methods and insights from Mohawkian (Ordovician) Geochronology, Tephrochronology, & Biostratigraphy, 2005-2008. \$376,201, \$53,000 to Leslie. (CO-PIs S. Samson, Syracuse Univ.; P. Sadler, UC Riverside; C. Mitchell SUNY Buffalo)

National Science Foundation subcontract through Ohio State for Paleobiology and Taphonomy of Exceptionally Preserved Fossils from Jurassic Lacustrine Deposits, Beardmore Glacier Area, Antarctica, (PI was L.E. Babcock at Ohio State, \$192,057, \$29,203 to Leslie Subcontract), 2003-2005.

SILO Advisory Council Undergraduate Research Fellowship (Mentor for student Lisa Guttery) for Age and depositional Environment of the Middle Ordovician Blakely Sandstone in the Ouachita Mountains of Central Arkansas using Conodont Microfossils, 2002-2003, \$2,650.

UALR Minigrant, Conodont Biostratigraphy of the Sylvania Shale, 2001-2002, \$1,000 .

Petroleum Research Fund, Use of conodont graphic correlation to determine Mohawkian and Cincinnati (Ordovician) sea-level changes along the southern margin of the Ozark Dome in north-central Arkansas. 1999-2001, \$25,000.

UALR Curriculum Development Grant to develop a course in Marine Systems Science, 1999-2000, \$3,900.

UALR College of Science and Engineering Technology Professional Travel Grant to present a paper at the International Symposium on the Ordovician System in Prague, Czech Republic, 1999, \$920.00.

SILO Advisory Council Undergraduate Research Fellowship (Mentor for student Seth Young) for Analysis of Possible K-Bentonite Beds in the Ouachita Mountains and Their Potential for Regional Correlation. 1998-99, \$2,567.50.

Arkansas Science and Technology Authority Grant, High-Resolution Conodont Biostratigraphy, Sequence Stratigraphy, and Event Stratigraphy of the Middle Ordovician Joachim Dolomite in the Ozark Region of Northern Arkansas, 1997-1998, \$23,716.

UALR College of Science and Engineering Technology Professional Travel Grant to present a paper at the Working Group on the Ordovician Geology of Baltoscandia, St. Petersburg, Russia, August 10-16, 1997, \$1,300.

UALR Faculty Scholarship Award, High-Resolution Conodont Biostratigraphy, Sequence Stratigraphy, and Event Stratigraphy of the Middle Ordovician Joachim Dolomite in the Ozark Region of Northern Arkansas, 1997-1998, \$5,000.

INVITED LECTURES

- University of Texas at Arlington
- The Audubon Society of Central Arkansas
- Central Arkansas Gem, Mineral and Geology Society
- University of Arkansas at Fayetteville, Department of Geology
- University of Central Arkansas, Department of Biology

- Society for Mining Metallurgy and Exploration, Arkansas Section Meeting
- Working Group on Ordovician Geology of Baltoscandia meeting at the All-Russian Geological Research Institute (VSEGEI), St. Petersburg, Russia
- Hot Springs Geology Club
- University of Missouri at Columbia, Department of Geological Sciences
- Central Arkansas Gem, Mineral and Geology Society
- Central Arkansas Science Alliance
- The Ohio Rock and Mineral Club
- Otterbein College, Department of Life and Earth Science

PUBLICATIONS

In Review

Bergström, S.M., Finney, S.C., Chen Xu, Goldman, D. & **Leslie, S.A.**, 2006. Three new Ordovician global stage names. *Lethaia*, Oslo.

Leslie, S.A., and Mitchell, J.C., Removing gold coating from SEM samples, *Palaeontology* (accepted with minor revisions June 2005)

Leslie, S.A. Relationships Between Upper Ordovician (Mohawkian) Lithofacies and Conodont Biofacies Distribution Patterns Using K-Bentonite Beds as Time-Planes, Eastern North America and Northwestern Europe. *Palaios* (In second revision, not yet resubmitted)

In Press

Mitchell, C., Samson, S., Sadler, P., and **Leslie, S.A.** Automated Sequencing of the Fossil Record: Improved Methods and Insights from Mohawkian (Ordovician) Geochronology, Tephrochronology, and Biostratigraphy (2006 NE-GSA abstract)

Books

2001 Millage, C., Hess, F., Kunze, G., Sharp, L., **Leslie, S.**, Letro, S., and Snow, T. Earth Science: Geology, the Environment, and the Universe (Student Edition) Glencoe/McGraw-Hill, Columbus, OH, 970 p.

2001 Millage, C., Hess, F., Kunze, G., Sharp, L., **Leslie, S.**, Letro, S., and Snow, T. Earth Science: Geology, the Environment, and the Universe (Teacher Edition). Glencoe/McGraw-Hill, Columbus, OH. 970 p.

Articles in Refereed Journals or Edited Volumes

2006 Panchuk, K.M., Holmden, C.E. and **Leslie, S.A.** Local controls on carbon cycling in the Ordovician midcontinent region of North America with implications for carbon isotope secular curves. *Journal of Sedimentary Research*, 76:200-211.

2005 **Leslie, S.A.**, and Lehnert, O. Evolution of the Ordovician Conodont Genus *Cahabagnathus* Bergström, 1983. *Journal of Paleontology*, 79(6):1131-1142.

2005 **Leslie, S.A.** and Bergström, S.M. Rediscovery of Branson & Mehl's classical Ozora, Missouri conodont locality and the morphology of the Upper Ordovician conodont zone index *Amorphognathus ordovicicus*, p. 39-42. In Ludvigson, G.A., and Bunker, B.G. (eds.) *Facets of the Ordovician Geology of the Upper Mississippi Valley Region*, Iowa Geological Survey Guidebook Series No. 24, p. 38-41.

- 2005 **Leslie, S.A.** and Bergström, S.M. Conodont biostratigraphy across the Turinian-Chatfieldian Stage transition (Late Ordovician, Mohawkian) in the Upper Mississippi Valley, p. 31-34. *In* Ludvigson, G.A., and Bunker, B.G. (eds.) Facets of the Ordovician Geology of the Upper Mississippi Valley Region, Iowa Geological Survey Guidebook Series No. 24, p. 30-33.
- 2005 Karam, P.A. and **Leslie, S.A.** Changes In Terrestrial Natural Radiation Levels Over the History of Life on Earth, Naturally Occurring Radiation, The Natural Radiation Environment VII, Radioactivity in the Environment, Volume 7, Elsevier.
- 2005 Lehnert, O., Miller, J.F., **Leslie, S.A.**, Repetski, J.E., and Ethington, R.L. Cambro-Ordovician sea level fluctuations and sequence boundaries: the missing record and the evolution of new taxa. *Special Papers in Palaeontology*, 73:117-134.
- 2005 Eriksson, M., **Leslie, S.A.**, and Bergman, C.F. Mud-Dwelling Jawed Polychaetes From The Upper Sylvania Shale (Upper Ordovician), Oklahoma, USA, *Journal of Paleontology*, 79(3):486-496.
- 2005 Babcock, L.E., Grunow, A.M., Sadowski, G.R., and **Leslie, S.A.** *Corumbella*, An Ediacaran-Grade Organism from the Late Neoproterozoic of Brazil. *Palaeogeography, Palaeoceanography, and Palaeoecology*, 220(1-2):7-18
- 2004 Bergström, S.M., W.D. Huff, M.R., Saltzman, D.R., Kolata, and **S.A. Leslie**. The greatest volcanic Ash Falls in the Phanerozoic: trans-Atlantic relations of the Ordovician Millbrig and Kinnekulle K-bentonites. *The Sedimentary Record*, 2:4-8.
- 2003 **Leslie, S.A.** and S.M. Bergström. Widespread, prolonged late Middle to Late Ordovician upwelling in North America: A proxy record of glaciation?: Comment and Reply, *Geology Forum*, e28-e29.
- 2003 Eriksson, M. and **S.A. Leslie**. Microfossils from the upper Sylvania Shale (Late Ordovician), Oklahoma, USA, p. 295-296 *in* Albanesi, G.L., Beresi, M.S., and Peralta, S.H. (eds.) Ordovician from the Andes. Instituto Superior de Correlación Geológica Insuge, Serie Correlación Geológica , No. 17.
- 2001 Karam, P.A., **S.A., Leslie**, and A. Anbar. The effects of changing atmospheric oxygen concentrations and background radiation levels on radiogenic DNA damage rate. *Health Physics*. 81(5):545-553.
- 2001 Babcock, L.E., W. Zhang, and **S.A. Leslie**. The Chengjiang Biota: record of the Early Cambrian diversification of life and clues to exceptional preservation of fossils. *GSA Today* 11(2):4-9.
- 2000 **Leslie, S.A.**, Mohawkian (Upper Ordovician) conodonts of Eastern North America and Baltoscandia. *Journal of Paleontology* 74(6): 1122–1147.
- 1999 Karam, P.A. and **S.A. Leslie** Calculations of Background Beta-Gamma Radiation Dose Through Geologic Time. *Journal of Health Physics*, 77(6): 662-667.
- 1999 **Leslie, S.A.** and Lehnert, O. New insight into the phylogeny and paleogeography of *Cahabagnathus* (Conodonta). *Acta Universitatis Carolinae - Geologica*, 43:443-446.
- 1998 Holmden, C.H., R.A., Creaser, K. Muehlenbachs, **S.A. Leslie**, and S.M. Bergström. Isotopic evidence for geochemical decoupling between ancient epeiric seas and bordering oceans: Implications for secular curves. *Geology* 26(6):567-570.

- 1997 **Leslie, S.A.** and S.M. Bergström. Use of K-bentonite beds as time-planes for high-resolution lithofacies analysis and assessment of net rock accumulation rate: An example from the upper Middle Ordovician of eastern North America, p. 11-21. *In* Klapper, G., Murphy, M.A., and Talent, J.A., eds, Paleozoic Sequence Stratigraphy, Biostratigraphy, and Biogeography: Studies in Honor of J. Granville (“Jess”) Johnson, Boulder, Colorado, Geological Society of America Special Paper 321.
- 1997 **Leslie, S.A.** Apparatus architecture of *Belodina* (conodonta): Interpretations based on fused clusters of *Belodina compressa* (Branson and Mehl, 1933) from the Middle Ordovician (Turinian) Plattin Limestone of Missouri and Iowa. *Journal of Paleontology*, 71(5):921-926.
- 1997 Meyer, D.L., P.E. Potter, J.L. Thies, W.I. Ausich, and **S.A. Leslie**. A deep-to-shallow transition in the Fort Payne Formation (Lower Mississippian), Kentucky 61, Cumberland County, Kentucky. Kentucky Geological Survey, Map and Chart Series 12, Series XI.
- 1996 **Leslie, S.A.**, W.I Ausich, and D.L. Meyer. Lower Mississippian sedimentation dynamics and conodont biostratigraphy (lowermost Fort Payne Formation) along the southeastern margin of the Eastern Interior Seaway. *Southeastern Geology*, 36(1):1-9.
- 1996 Holmden, C., R.A. Creaser, K. Muehlenbachs, S.M. Bergström, and **S.A. Leslie**. Isotopic and elemental systematics of Sr and Nd in Ordovician 454 Ma biogenic apatites: Implications for paleoseawater studies. *Earth and Planetary Science Letters*, 142:425-437.
- 1996 Karam, P. A., and **S.A. Leslie**. The evolution of Earth's background radiation field over geologic time. *International Congress on Radiation Protection 9*, v. 2, 238-240, Vienna, Austria.
- 1996 **Leslie, S.A.** *Schopfodus*, a new conodont genus from the Upper Middle Ordovician of Eastern North America. *Journal of Paleontology*, 70(1): 166-168.
- 1995 **Leslie, S.A.** and S.M. Bergström. Element morphology and taxonomic relationships of the Ordovician conodonts *Phragmodus primus* Branson and Mehl, 1933, the type species of *Phragmodus* Branson and Mehl, 1933, and *Phragmodus undatus* Branson and Mehl, 1933. *Journal of Paleontology*, 69(5):967-974.
- 1995 **Leslie, S.A.** and S.M. Bergström. Timing of the Trenton Transgression and revision of the North American late Middle Ordovician stage classification based on K-bentonite bed correlation, p. 49-54. *In* J.D. Cooper, M.L. Droser, and S.C. Finney (eds.), *Ordovician Odyssey: Short Papers for the Seventh International Symposium on the Ordovician System*. Pacific Section SEPM, v. 77.
- 1991 **Leslie, S.A.**, P.E. Isaacson, J.E. Repetski, and W.L. Weideman. Upper plate rocks of the Roberts Mountains thrust, northern Independence Range, northeast Nevada: The Late Cambrian(?) to Middle Ordovician Snow Canyon Formation of the Valmy Group, p. 475-486. *In* J.D. Cooper and C.H. Stevens (eds.), *Paleozoic Paleogeography of the Western United States-II*. Pacific Section SEPM, v. 67.

Invited Book Reviews

- 2000 **Leslie, S.A.** How To Teach a Successful Undergraduate Science Class for the First Time, and Not Lose Your Sanity, Invited book review of Handbook on teaching undergraduate science courses: a survival training manual, by Gordon E Uno, Saunders College Publishing, New York, New York, 159 pages. *Ecology*, 81(2): 601-602.
- 1999 **Leslie, S.A.** Invited book review of The Crucible of Creation: The Burgess Shale and the Rise of Animals, by Simon Conway Morris Oxford University Press, Oxford, England,

1998, 242 pages. Palaeontologica Electronica Volume 2 (1) [http://www-odp.tamu.edu/paleo/1999_1/books/morris.htm].

Published Abstracts

- 2006 Goldman, D., **Leslie, S.A.**, Nölvak, J. and Young, S.A. The Global Stratotype-Section and Point (GSSP) for the base of the second stage of the Upper Ordovician Series at Black Knob Ridge, southeastern Oklahoma, USA (2006 SC-GSA abstract)
- 2006 **Leslie, S.A.**, Bergström, S.M., and Huff, W.D. Volcanic ash beds discovered in the upper Bromide Formation and Womble Shale (Ordovician) in Oklahoma: the westernmost occurrences of the Millbrig and Deicke K-Bentonites? (2006 SC-GSA abstract)
- 2005 McMillan, M. E., Connelly, J. B., **Leslie, S.A.**, Owens, D.R., Sims, W.J., and Williams, W.J.W., Program Assessment of a B.S. in Geology, Geological Society of America Abstracts with Programs, 37(7):222.
- 2005 Rode, A. L., Briggs, D. E., **Leslie, S. A.**, and Babcock, L.E. Taphonomy of Conchostracan-Dominated Lacustrine Deposits in the Kirkpatrick Basalt (Jurassic, Antarctica). Geological Society of America Abstracts with Programs, 37(7):116.
- 2005 Stigall Rode, A. L., **Leslie, S. A.**, and Babcock, L. E. Ontogenetic change in the microstructure of Jurassic conchostracans (Crustacea, Spinicaudata, Cyzicidae) from Antarctica: Implications for conchostracan phylogeny and taxonomy. North American Paleontological Conference. *PaleoBios*, 25 (Supplement to number 2): 112-113.
- 2005 **Leslie, S.A.**, Goldman, D., Lewis, L. Using Sequence Stratigraphy to Find Conodonts in Dark Shale Successions Geological Society of America, Abstracts with Programs, 37(3) 12.
- 2004 **Leslie, S.A.**, D. Goldman, S.A. Young, M.R. Saltzman, and J. Nölvak. The Black Knob Ridge Section, southeastern Oklahoma, USA: a possible Global Stratotype-Section and Point (GSSP) for the base of the *Diplacanthograptus caudatus* Biozone and the middle stage of the Upper Ordovician Series. Geological Society of America, Abstracts with Programs, 36(6):75.
- 2004 L.E. Babcock, , A.L. Rode,, **S. A. Leslie**, L.A. Ford, , K. Polak, L. Becker. Microbially mediated precipitation of carbonates and exceptional preservation of fossils in the Kirkpatrick Basalt (Jurassic) of Antarctica. . Geological Society of America, Abstracts with Programs, 36(5):475.
- 2004 L.E. Babcock, J.S. Hollingsworth, A.L. Rode, L. A. Ford, P.S. Borkow, K. Polak, L.E. Holmer, **S.A. Leslie**. Macrofauna from the Poleta Formation (Cambrian) of Nevada: Influences of Sedimentary Conditions, Biodegraders, and Microbial Biofilms on Exceptional Preservation. IX International Conference of the Cambrian Stage Subdivision Working Group. International Commission on Stratigraphy, International Subcommittee on Cambrian Stratigraphy, Taebaek, Korea. Abstracts with Program, p. 34-35.
- 2004 **Leslie, S.A.**, Eriksson, M., and Bergman, C.F., Conodonts, Scolecodonts And Other Microfossils From The Upper Sylvan Shale Andkeel Formation (Late Ordovician), Arbuckle Mountains, Oklahoma, USA. Geological Association of Canada – Mineralogical Association of Canada, Abstracts V. 29, p. 94.
- 2004 **Leslie, S.A** and O. Lehnert, Where condonts go when sea level becomes low: A case study of refugia and evolution using the Ordovician genus *Cahabagnathus* Geological Association of Canada – Mineralogical Association of Canada, Abstracts V. 29, p. 78.

- 2004 **Leslie, S.A.** and S.M. Bergström. The first described diverse Upper Ordovician (Cincinnatian) conodont fauna in the world: New data based on rediscovery of Branson & Mehl's (1933) locality at Ozora, Missouri Geological Association of Canada – Mineralogical Association of Canada, Abstracts V. 29, p. 93.
- 2003 Lehnert, O. and **Leslie, S.A.** The influence of sea-level change on the evolution of *Cahabagnathus* Bergström (Conodonta), The Palaeontology Newsletter, The Palaeontological Association 47th Annual Meeting Abstracts. p. 54.
- 2003 Eriksson, M. and **Leslie, S.A.** A Richmondian (Late Ordovician) scolecodont-dominated microfauna from Oklahoma, U.S.A. Meeting Proceedings, Lundadagarna I Historisk Geologi och Paleontologi VII, GFF 125:104-105.
- 2003 Owens, D.R., **Leslie, S.A.**, Howard, M. and Worthington, G. Coalified Tree Xenoliths Within The Cretaceous American-Black Lick Lamproite, Southwestern Arkansas. GSA South-Central Section Meeting.
- 2002 Fernald, A.R., **Leslie, S.A.**, Connelly, J.B., Waggoner, B.M., and Hagadorn, J.W. *Caryocaris* (Arthropoda, Phyllocarida) from the Mazarn Shale and its biostratigraphic potential. Geological Society of America, Abstracts with Programs, 34(6):358.
- 2002 **Leslie, S.A.**, Barrick, J.E., Mosley, J., and Bergström, S.M. Conodonts from a Deep Core in the Upper Ordovician Platform Rocks of West Texas Near the Marathon Region. Eighth International Conodont Symposium Held in Europe, ECOS VIII Toulouse – Albi, France.
- 2002 Lehnert, O., Miller, J.F., and **Leslie, S.A.** Cambro-Ordovician sea level fluctuations and sequence boundaries: the missing record and the evolution of new taxa. Eighth International Conodont Symposium Held in Europe, ECOS VIII Toulouse – Albi, France.
- 2002 Fernald, A.R., **Leslie, S.A.**, and Connelly, J.B. *Caryocaris curvilata* (Arthropoda, Phyllocarida) from the Mazarn Shale, Ouachita Mountains, Paron, Arkansas, Academy of Science, 86th Annual Meeting, University of Arkansas at Little Rock.
- 2002 Karam, P.A. and **Leslie, S.A.** Changes In Terrestrial Natural Radiation Levels Over the History of Life on Earth NRE proceedings, Greece.
- 2001 Karam, P.A., and **Leslie, S.A.** Changes in environmental mutagens from 4 Ga until the present. Geological Society of America, Abstracts with Programs, 33(6): A-13.
- 2001 Karam, P.A., **Leslie, S.A.**, Anbar, A. The effects of changing atmospheric oxygen concentrations and background radiation levels on radiogenic DNA damage rates through geologic time. Geological Society of America, Abstracts with Programs, 33(6): A-13.
- 2001 **Leslie, S.A.**, L.E. Babcock, A. M. Grunow, and G.R. Sadowski, Paleobiology and Paleobiogeography Of *Corumbella*, A Late Neoproterozoic Ediacaran-Grade Organism. PaleoBios 21(2):83-84.
- 2001 Karam, P.A., and **S.A. Leslie**, What Winds A Molecular Clock? An Examination of Some Confounding Factors. PaleoBios 21(2):77.
- 2000 **Leslie, S.A.**, Sweet, W.C. and Craig, W.W. Conodont Graphic Correlation Of The Middle And Upper Ordovician Succession At Roasting Ear Creek, North-Central Arkansas. Geological Society of America, Abstracts with Programs, 32(7):A-448.

- 2000 Connelly, J.B., **Leslie, S.A.**, Sims, W.J.B., Lemmer, R.E., Owens, D.R., and Kehler, P.L. Core Course Assessment in Earth Sciences. Geological Society of America, Abstracts with Programs, 32(7):A-353.
- 2000 Karam, P.A., **Leslie, S.A.**, Anbar, A. The interplay between changing atmospheric oxygen levels, radiogenic mutations, and early life on Earth. 2000 American Radiation Safety Conference and Exposition (Health Physics Society 45th Annual Meeting).
- 2000 **Leslie, S.A.**, Clegg-Scala, C and Beland, P. E., Event stratigraphy and conodont biostratigraphy of the Joachim Dolomite in northern Arkansas. Geological Society of America, Abstracts with Programs, 32(3):A-33.
- 1999 **Leslie, S.A.** Apparatus-based taxonomy of *Scyphiodus primus* Stauffer, 1935 and its phylogenetic implications. Geological Society of America, Abstracts with Programs, 31(7):A-464.
- 1999 Owens, D. R., **Leslie, S.A.**, Al-Shukri, H., Connelly, J.B., Kehler, P.L., Lemmer, R.E., and Sims, W.J.B. Earth Science Week As An Outreach To Specialized Secondary Schools Of Mathematics, Science And Technology. Geological Society of America, Abstracts with Programs, 31(7):A-228.
- 1999 **Leslie, S.A.** A fused cluster of *Ozarkodina (Plectodina) Joachimensis* (Conodonta, Prioniodontida) Pa elements from the Middle Ordovician Joachim Dolomite, north-central Arkansas. Geological Society of America, Abstracts with Programs, 31(1):A-12.
- 1998 **Leslie, S.A.** Using K-bentonite beds as time-planes to illustrate relationships between upper Middle Ordovician lithofacies and conodont biofacies distribution patterns in eastern North America and northwestern Europe. Geological Society of America, Abstracts with Programs, 30(7):A-32.
- 1998 Babcock, L. E., Zhang Wentang,, **Leslie, S.A.**, St. John, J.M., and Grunow, A.M., Fossil record of the Neoproterozoic-Cambrian faunal transition: Interplay of biological, geological, chemical, and astronomical factors. Geological Society of America, Abstracts with Programs, 30(7):A-29.
- 1998 Holmden, C, Pan, Y, **Leslie, S. A.**, and Begrström, S.M. Rare earth element geochemistry of the 454 Ma Mohawkian sea. Geological Society of America, Abstracts with Programs, 30(7):A-373.
- 1998 Panchuk, K.M., Holmden, C., and **Leslie, S.A.**. Carbon isotope variations across the 454Ma Mohawkian sea. Geological Society of America, Abstracts with Programs, 30(7):A-317.
- 1997 **Leslie, S. A.** and Adams, O.F. Tectonic and paleoenvironmental implications of a Middle Pennsylvanian overlap assemblage and the Schoonover Formation, northern Independence Mountains, Nevada. GSA Abstracts with Programs, 29(6):233.
- 1997 Connelly, J.B., **Leslie, S.A.**, McMillan, M.E., Kehler, P.L., Owens, D.R., and Beland, P.E. Geologic methods: A second-year course that serves as a gateway to the geology major. GSA Abstracts with Programs, 29(6):453.
- 1997 **Leslie, S.A.** The use of K-bentonite beds in high-resolution analysis of upper Middle Ordovician conodont biofacies distribution patterns, p. 34-35. *In* Koren, T.N. (ed.), Meeting of Working Group on Ordovician Geology of Baltoscandia Programme and Abstracts.

- 1997 Holmden, C.H., R.A., Creaser, K. Muehlenbachs, **S.A. Leslie**, and S.M. Bergström. Isotopic evidence for geochemical distinct, geographically constrained water masses in ancient epeiric seas. CSPG-SEPM Convention, Victoria, British Columbia. 22:A46.
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- 1997 **Leslie, S.A.** Conodont Apparatus Architecture of *Belodina compressa* based on fused clusters from the Middle Ordovician (Turinian) Plattin Limestone of Missouri and Iowa. GSA Abstracts with Programs, South-Central Section, 29(2):20.
- 1996 **Leslie, S.A.**, Babcock, L.E., Mitchell, J.C., Chang, W.T. (Zhang Wentang), Phosphatization and its relationship to exceptional preservation of fossils in the Chengjiang Lagerstätte (Lower Cambrian, China). GSA Abstracts with Programs, Annual Meeting 28(7):A294.
- 1996 Karam, P.A., and **Leslie, S.A.** Is potassium the spring for the molecular clock?: effects of variations in K-40 radiation levels through geologic time on evolution. GSA Abstracts with Programs, Annual Meeting 28(7):A297.
- 1996 **Leslie, S.A.**, L.E. Babcock, and W.T. Chang. Composition and taphonomic overprint of the Chengjiang Biota (Early Cambrian, China). In Repetski, J.E. (ed.) Sixth North American Paleontological Convention Abstracts of Papers, Paleontological Society Special Publications 8, p. 237.
- 1995 **Leslie, S.A.** 1995. High-resolution lithofacies analysis and net rock accumulation rate of the upper Middle Ordovician in eastern North America. GSA Abstracts with Programs, Annual Meeting 27(6):A171.
- 1995 Holmden, C.H., R.A., Creaser, K. Muehlenbachs, **S.A. Leslie**, and S.M. Bergström. Isotopic and elemental systematics of Sr and Nd in Ordovician biogenic apatites. Geological Association of Canada-Mineralogical Association of Canada Annual Meeting, Program and Abstracts, Victoria, British Columbia, 20:A46.
- 1994 Holmden, C.H., R.A., Creaser, K. Muehlenbachs, **S.A. Leslie**, and S.M. Bergström. Conodonts, brachiopods and conulariids: Unreliable recorders of ancient seawater $^{87}\text{Sr}/^{86}\text{Sr}$. GSA Abstracts with Programs, Annual Meeting 26(7):228.
- 1994 **Leslie, S.A.** K-bentonite and conodont stratigraphy of the Blackriveran-Trentonian (Ordovician) interval in the Upper Peninsula of Michigan and southern Ontario. Fourth Canadian Paleontology Conference Program and Abstracts, p. 8-9.
- 1994 **Leslie, S.A.** and S.M. Bergström. Rediscovery of Branson and Mehl's (1933) Middle Ordovician Holstein locality: Revision of *Phragmodus primus* Branson and Mehl, 1933 based on new topotype material. GSA Abstracts with Programs, North-Central Section 26(5):50.
- 1993 **Leslie, S.A.** and S.M. Bergström. Middle Ordovician K-bentonites dated by conodont biostratigraphy in the southern and central Appalachians. GSA Abstracts with Programs, Annual Meeting 25(6):75.
- 1993 **Leslie, S.A.** and S.M. Bergström. Upper Middle Ordovician conodont faunal distribution around the Deicke and Millbrig K-bentonites in the southeastern U.S. GSA Abstracts with Programs, North-Central Section 25(3):33.

- 1993 **Leslie, S.A.** and S.M. Bergström. Conodont and K-bentonite stratigraphy across the Blackriveran/Trentonian (Ordovician) boundary, north-central New York. GSA Abstracts with Programs, Northeastern Section 25(2):34.
- 1992 Bergström, S.M., **S.A. Leslie**, D.R. Kolata, and W.D. Huff. Distribution of marine fossils in the Millbrig-"Big Bentonite" interval in the Middle Ordovician of Europe and North America: No evidence of a faunal extinction event caused by a gigantic ash fall. GSA Abstracts with Programs, Annual Meeting 24(7):197.
- 1992 Schumacher, G.A., R.W. Carlton, S.M. Bergström, and **S.A. Leslie**. Correlation of Mohawkian (Ordovician) K-bentonites in post-Black River rocks of Ohio, Kentucky and Michigan. GSA Abstracts with Programs, Annual Meeting 24(7):197.
- 1990 **Leslie, S.A.**, P.E. Isaacson, and W.L. Weideman. Preliminary Stratigraphy, Paleontology, and Greenstone Geochemistry of the Snow Canyon Formation of the Valmy Group, northeastern Nevada. GSA Abstracts with Programs, 22(6):19.

Articles with students in non-refereed publications

- Guttery, L.C. and S.A. Leslie (2004). Age and Depositional Environment of the Middle Ordovician Blakely Sandstone in the Ouachita Mountains of Central Arkansas Using Conodont Microfossils. Proceeding Journal of the Arkansas Undergraduate Research Conference: 43-47.
- Young, S.A. and S.A. Leslie. (1999). The search for K-bentonite beds in Arkansas and their potential for regional correlation. Proceeding Journal of the Arkansas Undergraduate Research Conference and Space Grant Symposium: 231-234.
- Beland, P.E. and S.A. Leslie. (1998) Conodont Biostratigraphy of the Middle Ordovician Joachim Dolomite of North-Central Arkansas. Proceeding Journal of the Fifth Annual (Arkansas) Undergraduate Research Conference: 13-15.
- Clegg-Scala, C. and S.A. Leslie. (1998) Lithofacies Analysis the Middle Ordovician Joachim Dolomite of North-Central Arkansas. Proceeding Journal of the Fifth Annual (Arkansas) Undergraduate Research Conference: 31-36.

Proprietary Reports (money generated from consulting go to support student and professional activities in the UALR Department of Earth Sciences)

Twelve reports to Cameco, Inc. on age, stratigraphy, tectonic setting and thermal maturation of Paleozoic strata for the REN project, Nevada.

Thirteen reports to Independence Mining Company, Inc. on age, stratigraphy, tectonic setting and thermal maturation of Paleozoic strata of the Independence Mountains, Elko County Nevada.

Two reports to Hunsaker, Inc. on the on age, stratigraphy, and thermal maturation of Paleozoic samples for northeastern Nevada.

Two reports to Alligator Ridge Exploration, Placer Dome U.S. Inc. on age, stratigraphy and thermal maturation of Early Mississippian strata of the southern Ruby Mountains, Elko and White Pine counties, Nevada.

One report to Orvana Resources on age and thermal maturation of Ordovician and Pennsylvanian strata in northeastern Nevada.

DEPARTMENT, COLLEGE, AND UNIVERSITY COMMITTEES

University-wide Committees

- Campus Campaign Steering Committee, 2005- present
- Faculty Handbook Review Committee, 2005- present
- Faculty Senate, 2003-present
- Athletics Committee, 2004-5
- Provost Assessment Advisory Group, Member, 2000-2002
- College Core Committee, Member 2000 – 2002
- College of Science and Mathematics Dean Search Committee, 1999-2000
- Graduate Council, Member, 1999-2002
- North Central Self Study Committee on Assessment of Student Academic Achievement, Member, 1999
- Core Assessment Committee, Member and Group Chair, 1997-1999

College-wide Committees

- College Assembly President, 2005-2006
- Noyce Scholarship Committee, 2005-2006.
- Strategic Planning Committee, 2002-2003
- Program Assessment Review Committee, Chair 2000-2002, Member 1998, 1999
- Curriculum Committee, Secretary, 1996-2001
- Research Space Committee, Member, 1997-1998

Department-wide Committees

- All Earth Science faculty are on all Earth Science Department committees with the Department Chair serving as *de facto* committee chair.

ADMINISTRATIVE DUTIES OTHER THAN COMMITTEE WORK

- Faculty advisor for the Geology Club, 1996-2001
- Management of the Department of Earth Sciences web page, 1996-2001
- Department Library Liaison, 1996-2004

PROFESSIONAL ACTIVITIES

- **Co-editor** of The Sedimentary Record, SEPM Society for Sedimentary Geology, 2003-2006.
- **Board Member** on the Arkansas State Board of Registration for Professional Geologists, 2005-2009 (by Governor appointment).
- **Paleontology Councilor** for SEPM Society for Sedimentary Geology, 2004-2005
- **Associate Editor** Journal of Paleontology, 2003 – 2005, 2005-2007
- **Local Committee Chair** that organized the Arkansas Academy of Science's 86th Annual Meeting at the University of Arkansas at Little Rock. April 5-6, 2002
- **Manuscript reviewer** (Journal of Geoscience Education; Geological Magazine; GSA Special Papers; Journal of Paleontology; Palaeontology, Palaeogeography, Palaeoceanography, and Palaeoecology)
- **Textbook reviewer** for "An Introduction to Dinosaurs," Addison Wesley/Pearson Ed., 2001
- **Textbook reviewer** for Blackwell Science, 1999.
- Earth Sciences **Advisory Board Member** for Science in Dispute, a 3-part book series that contains pro/con essays about controversial or disputed topics in science, 2001
- **Grant Reviewer** (National Science Foundation; American Chemical Society-Petroleum Research Fund; AAPG student grants; GSA student grants)
- **Corresponding member** of the International Union of Geological Sciences (IUGS) Subcommittee of Ordovician Stratigraphy, 1999-present
- Pander Society Representative to the Association of North American Paleontological Societies, 1998-2001.

- **Management Board Member**, Geological Society of America South-Central Section, 1998 – 2000.
- **Mentor** for the Science Teachers Research Involvement for Vital Education (STRIVE) program, 1999.
- **Mentor** for the Ronald E. McNair Scholars Program, 1998, 1999.
- **Session Chairperson**, GSA South-Central Section Meeting, Lubbock, TX, 1999.
- **Session Chairperson**, GSA South-Central Section Meeting, 29th Annual Meeting of the Pander Society (II), El Paso, TX, 1997.
- **Session Chairperson**, GSA North-Central Section Meeting, 27th Annual Meeting of the Pander Society (II), Kalamazoo, MI, 1994.
- **Meeting Coordinator/Organizer** for the 3rd Annual Tri-City Paleontology Conference, Columbus, Ohio, 1994.
- **Session Chairperson**, GSA Northeastern Section Meeting, Carbonate Rocks and Stratigraphy Technical Session, Burlington, VT, 1993.

SOCIETY AFFILIATIONS

- Arkansas Professional Geologist #1803
- National Association of Geoscience Teachers
- SEPM Society for Sedimentary Geology
- Geological Society of America
- Paleontological Society
- Palaeontology Association
- Pander Society (conodont micropaleontology society)
- American Association for the Advancement of Science

CONTINUING EDUCATION

- Research on Student Learning: Training the Next Generation of Scientists. Lecture-Workshop taught by Dr. John Henry Newman, University of Southern California (5/14/99).
- The Paleobiology of the Dinosaurs, Chautauqua NSF Short Course taught by Dr. J. Michael Parrish at Mesa State College, Grand Junction, CO (6/14/97 - 6/19/97)
- Establishing a Portfolio Evaluation System for the Major: A Cross-Curricular Workshop taught by Drs. Gary Phillips and Brian Polansky, UALR (5/6/97)
- Teaching Portfolios. Workshop taught by Dr. Heather MacDonald, College of William and Mary (10/15/96)
- Strategies for Reducing Lecturing in Large Introductory Classes. Workshop taught by Dr. Heather MacDonald, College of William and Mary (10/14/96)
- Teaching with the internet. UALR All-Faculty Development Days. Workshop led by Dr. Tom Teeter, College of Education, UALR (8/19/96)
- Writing Across the Curriculum. UALR All-Faculty Development Days. Workshop led by Dr. Richard Raymond, UALR (8/19/96)