Johnny A. Waters

Department of Geology Appalachian State University Boone, N.C. 28608 U.S.A.

Phone: 828-262-7820 Fax: 828-262-6503

email: watersja@appstate.edu URL: http://www.geology.appstate.edu/Faculty/WatersJA.htm

Current position

Professor and Chair, Department of Geology, Appalachian State University

Areas of specialization

Geology; Paleontology.

Education

- 1978 PHD Geology; Indiana University, Bloomington
- 1975 MA Geology; Indiana University, Bloomington
- BS Geology; Auburn University

Appointments held

- 2004-2010 Professor and Chair, Department of Geology, Appalachian State University
- 1985-2004 Professor, University of West Georgia
- 1999-2002 Chair, Department of Geosciences, University of West Georgia
- 1999-2004 Director, Center for Water Resources, State University of West Georgia
- 1995-1999 Chair, Department of Geology, State University of West Georgia
- 1980-1985 Associate Professor, West Georgia College
- 1976-1980 Assistant Professor, West Georgia College

Honors & awards

- 2006 Patron, Paleontological Society
- 1997 Regents Teaching Excellence Award to the Department of Geology, \$5000
- 1997 Regents Distinguished Professor, University of West Georgia, \$70,000
- Regents Distinguished Professor, University of West Georgia, \$70,000
- ¹⁹⁸² Visiting Professor of Geology, Trinity College, Dublin, Ireland

| 1975 1973 1973 1973 | Texaco Fellowship, Department of Geology, Indiana University Texaco Fellowship, Department of Geology, Indiana Unversity President's Award, School of Arts and Sciences, Auburn University Graduated with Honors, Auburn University |
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| | Grants |
| | I have been the PI, CoPI or Project Manager on 27 externally funded grants or con- tracts totaling \$1,758,102 through 2009. |
| 2008-2009 | Blue Ridge Parkway Minerals Project. Contract with the National Park Service. \$10,000. |
| 2003-2006 | Long Term Monitoring of Water Quality and Assessment of Biotic Integrity of Surface Waters in Carroll County, Georgia. Senior Project Manager. Contract with the Carroll County Board of Commissioners. \$312,000. |
| 2003-2006 | Long Term Monitoring of Water Quality and Assessment of Biotic Integrity of Surface Waters in the Snake Creek Watershed, Carroll County, Georgia. Senior Project Man- ager. Contract with the Carroll County Water Authority. \$96,500. |
| 2003-2006 | Long Term Monitoring of Water Quality and Assessment of Biotic Integrity of Surface Waters in the City of Villa Rica, Georgia. Senior Project Manager. Contract with the City of Villa Rica. \$73,000. |
| 2003-2004 | GeorgiaView Year 1. Consortium Building. United States Geological Survey Ameri- caView Program. Co-PI with Rebecca Dodge and Brooks Pearson in collaboration with Kennesaw State University and Gainesville College. \$79553. |
| 2001-2003 | Acquisition of an ESEM with EDX and EBSD capability for microanalysis at the State University of West Georgia. EAR - 0116375. National Science FoundationCo-PI with Catalina Lüneburg, Julie Bartley and Hermann Lebit. Total budget \$400,000 (NSF \$300871; UWG \$98936) |
| 2001-2003 | The Georgia Geospatial Technology Literacy Project . National Science Foundation. 0087185. a collaborative project between the Geosciences Department at the State University of West Georgia and the Geology Department at Gainsville College. Co-PI with Rebecca Dodge and Brooks Pearson. Total budget \$188,890. |
| 2002-2002 | TDML Stream Sampling and Testing for Fecal Coliform on eight 303(d) Listed Streams in Coweta, Meriwether and Troup Counties. Senior Project Manager. Contract with Chattahoochee-Flint Regional Development Center \$11,280. January to June 2002. |
| 2001-2002 | Landuse Assessment - West Georgia Watershed Assessment. Senior Project Manager. Contract to Hayes, James and Associates from the State of Georgia. \$12,500. |

| 2001-2001 | Forsyth County Environmental Impact Study for the Fowler Property. Senior Project Manager. Contract to Hayes, James and Associates. \$27300. |
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| 2000-2002 | West Georgia Watershed Assessment. Senior Project Manager. Contract to Hayes, James and Associates from the State of Georgia. \$311,193. |
| 2000-2001 | Heard County Reservoir- Preliminary Siting. Senior Project Manager. Contract to Hayes, James and Associates from the Heard County Water Authority. \$37,100. |
| 2000-2001 | Forsyth County, Fowler Property - Preliminary Siting. Senior Project Manager. Con- tract to Hayes, James and Associates. \$5500. |
| 2000-2000 | Hydrogeologic monitoring of water wells for the City of Roopville, Georgia. Con- tract to the City of Roopville, Georgia through the Geor-gia Emergency Management Agency. September 2000. with Randy Kath. \$8400. |
| 1999-2000 | Watering Up Geoscience Education. University System of Georgia Board of Regents Teaching and Learning Grant. \$12,500. |
| 1997-1998 | REU Supplement to Collaborative Research: Echinoderm Rebound and Diversifica- tion after the Late Devonian Extinction - Evidence from Chinese Famennian and Car- boniferous Echinoderm Faunas. National Science Foundation. Funded Undergraduate Research Fellows. \$12,000. |
| 1994-1998 | RUI: Collaborative Research: Echinoderm Rebound and Diversification after the Late Devonian Extinction - Evidence from Chinese Famennian and Carboniferous Echin- oderm Faunas. National Science Foundation. EAR - 9404729. This project involved cooperative research with N. G. Lane, Indiana University, C. G. Maples, Kansas Geo- logical Survey. Total budget \$170,000, WGC Budget \$57342. |
| 1992-1994 | Collaborative Research: Paleobiogeography of Latest Devonian and Car-boniferous Echinoderms, Peoples Republic of China. National Science Foundation. EAR -9117673. This project involved cooperative research with N. G. Lane, Indiana University, C. G. Maples, Kansas Geological Survey. Total budget \$170,000, WGC Budget \$60197. |
| 1992-1993 | Research Experiences for Undergraduates: Geological Investigation for Undergradu- ates. National Science Foundation. EAR - 9200323. with Curtis L. Hollabaugh. Amount \$15000. |
| 1991-1992 | Carboniferous Echinoderms from the Peoples Republic of China. (with C. G. Maples and N. G. Lane) National Geographic Society. Amount \$19500. |
| 1990-1992 | Biostratigraphic Analysis of Three Potential Lower Carboniferous (V3a - V3b) Bound- ary Stratotypes in the Southern Appalachians. American Chemical Society (Petroleum Research Fund). PRF 23304-B2-C. Amount \$20000. |

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| 1987-1989 | Echinoderm Paleontology of the Pride Mountain Formation (Mississippian). American Chemical Society (Petroleum Research Fund) PRF 19108-B2. Amount \$20000. |
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| 1984-1986 | Extinction, biostratigraphy and community evolution at the Meramec - Chester (Mis- sissippian) boundary. American Chemical Society (Petroleum Research Fund) Grant PRF 15555-AC2. (with N.G. Lane, Indiana University). \$34576. |
| 1982-1983 | Evolution and paleoecology of the Blastoidea. Eppley Foundation for Scientific Research. \$6500. |
| 1982-1983 | The evolutionary paleoecology of some Carboniferous blastoids from the British Isles. American Philosophical Society. \$1400. |
| 1981-1983 | Paleoecology and paleoenvironments of the lower Bangor Limestone (Chesterian; Mis- sissippian) in northern Alabama. American Chemical Society (Petroleum Research Fund) PRF 13227-B2. \$13000. |
| 1978-1980 | The Blastoid <i>Pentremites</i> (Echinodermata): A study in speciation, taxonomy and evo- lution. National Science Foundation DEB77-23375. (with A.S. Horowitz, Indiana Uni- versity and D.B. Macurda, Jr., University of Michigan). \$35000. |
| | Articles about my collaborative research |
| 2001 2001 2001 | Harder, B., New fossils threaten an extinction theory. Science News. 160(20):311. Kerr, R. A., Paring down the big five mass extinctions. Science. 294:2072-2073. Stokstad, E., Exquisite Chinese fossils add new pages to book of life. Science. 291(5502): 232-236. |
| 1994 1992 | Kerr, R. A., Who profits from ecological disaster? Science. 266: 28-30. October 7, 1994. Chinese desert fossils locate an Ancient sea. National Geographic Geographica. May 1992 issue. |
| | Publications & talks |
| | Воокѕ |
| 1997 | Waters, J. A. and C. G. Maples. Geobiology of Echinoderms. The Paleontological Society Papers. V. 3, 355 p. |
| 1980 | Broadhead, T. W. and J. A. Waters. Echinoderms, Notes for Paleontological Society Short Course, University of Tennessee Studies in Geology 3, 235p. |
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Electronic

1997 Echinoderms. A Compact Disk of images to accompany the Paleontological Society shortcourse on echinoderms presented at the national meeting of the Geological Society of America meeting in Salt Lake City, Utah. October 1997.

JOURNAL ARTICLES

- in review Waters, J. A. and G. D. Sevastopulo. A new Carboniferous (Mississippian) blastoid from Hook Head, Co. Wexford, Ireland. Irish Journal of Earth Science.
- in press Waters, J. A. and G. D. Webster. The Paleogeography of Pennsylvanian Crinoids and Blastoids. International Year of Planet Earth. Talent, ed.
- Webster, G.D., J.A. Waters, X.Q. Chen. Revision of the Chen and Yao Devonian to Permian crinoids from Western Yunnan. Palaeobiodiversity Palaeoenvironments. 89:119-160
- 2009 Webster, G.D., J.A. Waters, Z.T. Liao, and C. G. Maples. New Pennsylvanian (Moscovian) echinoderms from Xinjiang-Uygur Autonomous Region, western China.Paleoworld. 18:241-250
- 2009 Webster, G.D., J.A. Waters, Z.T. Liao, and C. G. Maples. New Pennsylvanian (Moscovian) echinoderms from the Qijiagou Formation from Taoshigo Valley, Xinjiang-Uygur Autonomous Region, western China.Paleoworld. 18:41-52
- Waters, J. A. and G. D. Webster. A Reevaluation of Famennian Echinoderm Diversity: Implications for Patterns of Extinction and Rebound in the Late Devonian. Geological Society, London. Special Publications 2009; v. 314; p. 149-161. doi:10.1144/SP314.8
- 2009 Webster, G. D. and J. A. Waters. Late Devonian Echinoderms from the Hongguleleng Formation of Northwestern China. Geological Society, London. Special Publications 2009; v. 314; p. 149-161. doi:10.1144/SP314.8
- Waters, J. A., S. A. Marcus, C. G. Maples, N. G. Lane, H.F. Hou, Z. T. Liao, J. X. Wang, and L. J. Liu. An Overview Of Paleozoic Stemmed Echinoderms From China. p. 347-367. In Echinoderm Paleobiology (W. I. Ausich and G. D. Webster, eds). Indiana University Press. 384 p.
- Miller, J. F., K. R. Evans, W. I. Ausich, S. E. Bolyard, G. H. Davis, R. I. Ethington, C. W. Rovey, II, C. A. Sandberg, T. L. Thompson, and J. A. Waters. Mixed-Age Echino-derms, Conodonts, and other fossils used to date a meteorite impact, and implications for missling strate in the Type Osagean (Mississippian) in Missouri, USA. P. 247-290. In Echinoderm Paleobiology (W. I. Ausich and G. D. Webster, eds). Indiana University Press. 384 p.
- 2005 Early Chesterian Echinoderms from the Otter Formation of Central Montana. The

| | Mountain Geologist. 42(1):23-34. with G. D. Webster. |
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| 2004 | Carboniferous (Visean-Moscovian) Echinoderms from the Béchar Basin Area of west- ern Algeria. Bulletins of American Paleontology. Number 368. 98p. with G. D. Webster, C. G. Maples, G. D. Sevastopulo, T. Frest and J. A. Waters. |
| 2003 | A Quadrupling of Famennian Pelnatozoan Diversity: New Late Devonian Blastoids and Crinoids from the Late Devonian (Famennian) of Northwest China. Journal of Paleontology. 77(5):922-948. with N. Gary Lane, C. G. Maples, S. A. Marcus, Z. Liao, L. Liu. |
| 2003 | Redescription of Devonian and Carboniferous Blastoids from Western Yunnan, China. Journal of Paleontology. 77(6): 933-936. with N. Gary Lane, C. G. Maples, S. A. Marcus, Z. Liao, L. Liu |
| 2001 | Revision of Strunian Crinoids and Blastoids from Germany. Paläontologische Zeitschrift. 75(2):233-252. with N. Gary Lane, C. G. Maples. |
| 2001 | Revision of Late Devonian (Famennian) and some Early Carboniferous (Tournai-sian) crinoids and blastoids from the type Devonian area of North Devon. Palaeontology. 44(6): 1043-1080. with N. Gary Lane, C. G. Maples |
| 1999 | Hexactinellid and calcareous sponges from the Pennsylvanian (Moscovian) Dikanre For- mation from Xinjiang-Uugur Autonomous Region, northwestern Peoples Republic of China. Journal of Paleontology 73(3):380-389.with N. Gary Lane, C. G. Maples, S. A. Marcus, Z. Liao |
| 1997 | Echinoderm Faunas of the Hongguleleng Formation (Famennian), Xinjiang-Uygur Au- tonomous Region, China. Paleontological Society Memoir 47. 45 p. with N. Gary Lane, C. G. Maples. |
| 1997 | Just Do It!. Teaching and Research in an Undergraduate Environment. Reaching Through Teaching. 10(1).The Center of Excellence in Teaching and Learning at Kennesaw State University |
| 1996 | A Camerate Dominated Late Carboniferous (Moscovian) Crinoid Fauna From Volcanic Conglomerates, Northwestern Peoples Republic Of China. Journal of Paleontology . 70:117-128. with N. Gary Lane, C. G. Maples, S. A. Marcus, Z. Liao |
| 1995 | Paleoautecology and systematic re-evaluation of <i>Camptocrinus alabamensis</i> (Mississippian: Chesterian) from northern Alabama. with C. G. Maples. Journal of Paleontology. 69(2):367-375. |
| 1995 | Paleozoic echinoderms from China. Mid-American Paleontological Society (M.A.P.S.) Digest, 18(4):84-97.with N. Gary Lane, C. G. Maples, S. A. Marcus. |
| 1994 | Discovery of a new Famennian Echinoderm Fauna from the Hongguleleng Formation of Xinjiang, with redefinition of the formation. With Hou Hong-fei, N. Gary Lane and |

C. G. Maples. Stratigraphy and Paleontology of China, Volume 2. p. 1-18.

- ¹⁹⁹³ Mississippian echinoderms from Alabama An overview. with C. G. Maples and A. S. Horowitz. in Pashin, J.C. (ed). Guidebook for the 30th Annual fieldtrip of the Alabama Geological Society, November 11-13, 1993, p. 41-50.
- Ordinal level evolution in the Blastoidea. with A. S. Horowitz. Lethaia. 26:207-213.
 Genevievian Gasperian (Mississippian) echinoderm community reorganization: a predationmediated faunal change. (with C. G. Maples). Paleobiology. 17(4): 400-410
- Stratigraphical Distribution of Crinoids and Blastoids in the Lower Carboniferous,"
 with N. G. Lane and G. D. Sevastopulo. Courier Forschungsinstitut Senkenberg 130:211-219.
- ¹⁹⁹⁰ The Palaeobiogeography of the Blastoidea (Echinodermata). in McKerrow and Scotese (eds)," Palaeozoic Biogeography and Palaeogeography, Geological Society of London Memoir 12, p. 339-352.
- 1990 *Harmostocrinus jonesi* n. sp. (Crinoidea): An Evolutionary Intermediate from the Mississippian of Northern Alabama. Journal of Paleontology, 64:141-146. with C. G. Maples and H. T. Walsh
- Use of Drain Cleaner in Processing Shale Samples. Journal of Paleontology, 64(3):484-485. (with C. G. Maples).
- The Pennsylvanian System in Georgia: Stratigraphy, Structure, Paleontology and Coal Resources. Guidebook for a Field Trip at the 38th Meeting of the South-eastern Geological Society of America, Atlanta, Georgia, April 1989, pp. 27, with T. J. Crawford and W. Gillespie
- ¹⁹⁸⁹ The Pennsylvanian System of Georgia: Plant Fossils of the Pennsylvanian System of Georgia. Addendum to the Guidebook for a Field Trip at the 38th Meeting of the Southeastern Geological Society of America, Atlanta, Georgia, April 1989, with T. J. Crawford, and W. Gillespie. Georgia Geological Society vol. 9 no. 1; p. 1-27
- 1988 Reply to a Comment on "Redefinition of the Meramec–Chester Boundary (Mississippian)," Geology, Vol. 16, pp 471-472, with C. G. Maples
- ¹⁹⁸⁸ Middle Mississippian Blastoid Extinction Event. Science, Vol. 240, pp. 796-798, May 6, 1988, with W.I. Ausich and D.L. Meyer
- 1988 Evolutionary Palaeoecology of the Blastoidea. in Paul, C.R.C. and Smith, A. B., eds, Echinoderm Phylogeny and Evolutionary Biology, Oxford University, Publications, Current Geologic Concepts 1, Oxford, England, pp 215-234

| 1988 | Generally Correct - But Precisely Wrong. Palaios 3, an "Online" editorial essay, Vol. 3, p. 257 |
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| 1988 | Marine Fossils of the Pennsylvanian Series in Georgia. Georgia Geologic Survey, Open File Report, 20pp, 5 pls, with T. J. Crawford |
| 1987 | Redefinition of the Meramec–Chester Boundary (Mississippian). Geology, Vol 15, pp 647-651, with C. G. Maples |
| 1986 | A New Occurrence of <i>Granatocrinus granulatus</i> From the Fort Payne Chert of Alabama. Journal of Paleontology, Vol. 60, pp 177-180 (with Gordon Bell) |
| 1986 | Polyphyly in the Pentremitidae (Blastoidea, Echinodermata). Bulletin, Geological So- ciety of America, Vol. 97, pp 156-161, with A.S. Horowitz and D.B. Macurda, Jr. |
| 1985 | The Paleobiogeography of Irish and British Lower Carboniferous Blastoids. Pro-ceedings of the 5th International Echinoderm Conference, Keegan and O'Conner, eds, Galway, Ireland, pp. 141- 148, Winter 1985 |
| 1985 | Ontogeny and Phylogeny of the Carboniferous Blastoid Pentremites. Journal of Pale- ontology. 59:701-712, with A.S. Horowitz and D.B. Macurda, Jr. |
| 1984 | J. A. Waters and G. D. Sevastopulo. The Stratigraphical Distribution and Palaeoecol- ogy of Irish Lower Carboniferous Blastoids. Irish Journal of Earth Sciences. 6:137-154. |
| 1984 | Algal-Archaeocyathan Patch Reefs from the Cartersville Mining District, Georgia, South- eastern Geology, 24(4):159-167, with C. G. Maples |
| 1984 | Heterochrony and the Problem of Missing Links in Evolution, The Evolution -Creation Controversy, The Paleontological Society (Special Publication 1), pp 84-96, with T. W. Broadhead |
| 1983 | Floyd Shale, North of Floyd Springs, Stop 9a,b. in Geology of Paleozoic Rocks in the Vicinity of Rome, Georgia, T. M. Chowns, ed., 18th Annual Field Trip, Georgia Geological Society. vol. 3 no. 1; p. 42-59. |
| 1982 | The Evolution of Pentremites (Blastoidea) and Carboniferous Crinoid Community Succession. Proceedings of the Third International Echinoderm Congress, J. M. Lawrence, ed., pp 133-139. (with T. W. Broadhead and A. S. Horowitz) |
| 1980 | Paleontology, Biostratigraphy and Depositional Environments in the Bangor Lime-stone in Northwestern Georgia, Georgia Geological Survey, Open File Rept 45 pp |
| 1980 | Depositional Setting of the Mississippian Hartselle Sandstone and Lower Bangor Lime- stone in Northwest Alabama. in Tull, J. F., ed., Field Trips for the South-eastern Section |

of the Geological Society of America, Birmingham, Alabama, 1980, pp 29-68, with W.A. Thomas and G.H. Mack Paleoecology of the Lower Bangor Limestone (Mississippian, Chesterian) from North-1980 western Alabama, in Tull, J.F. (ed.), Field Trips for the Southeastern Section of the Geological Society of America, Birmingham, Alabama, 1980. pp 57-68 1980 Echinoderms and Aspects of Evolutionary Theory. in Broadhead and Waters, eds. Echinoderms, Notes for Paleontological Society Short Course, pp 73-78. University of Tennessee. Quantitative Clustering Applied to Some Polyporan Data from the Middle Devo-nian 1979 of Indiana, Advances in Bryozoology, Special Volume 13, Larwood and Abbott, eds., Systematic Association, pp 373-382, Academic Press, London, England (with J. Stratton and A. S. Horowitz) Quantification of Shape by Use of Fourier Analysis, (The Mississippian Blastoid Genus 1977 Pentremites) Paleobiology, Vol. 3, pp. 288-299 Fourier Series as a Quantitative Descriptor of Miospore Shape, Journal of Paleontol-1974 ogy, Vol. 48, pp 697-709, with R.A. Christopher Fourier Analysis of the Ostracode Margin, Bulletin, Geological Society of America, Vol. 1972 83, pp. 1169-1178 Proloculus Size and Natural Selection in Triticities ventricosus (Fusulinacea), Journalof 1972 Paleontology, Vol. 46, No. 3, pp 360-363, with R. L. Kaesler A Census of Holocene Species of Xestolebris (Ostracoda, Podocupida) From the South-1972 ern Oceans, University of Kansas Paleontological Contributions, Paper 60, 35 pp, 12 figures, with R. L. Kaesler A Mississippian Echinoderm Site in Alabama, Journal of Paleontology Vol. 46, pp 660-1972 665, with A.S. Horowitz Abstracts and Invited Papers Waters, J. A. and G. D. Webster. A Reevaluation of Famennian Echinoderm Diversity: 2008 Implications for Patterns of Extinctioin and Rebound in the Late Devonian. Palaeozoic Climates – International Congress. August 22-31, 2008. Lille, France. Abstracts. P. 99. Webster, G. D. and J. A. Waters. Late Devonian Echinoderms from the Hongguleleng 2008 Formation of Northwestern China. Global Alignment of Lower Devonian Carbonate

and Clastic Sequences. SDX / IGCP 499 joint field meeting. Kitab State Geological

Reserve, Uzbekistan. August 25 - September 3, 2008.

- 2008 Waters, J. A. The Famennian (Late Devonian) Diversification of Echinoderms. Geological Society of American Annual Meeting. Houston, Texas. October 8, 2008.
- 2007 Waters, J.A. and G.D. Webster: Was the Paleo-tethys a Pennsylvanian Refugium for Some Crinoids and Blastoids? 16th International Congress on Carboniferous and Permian, June 21-24. Nanjing China.
- 2007 Webster, G.D., J. Waters and X.Q. Chen: Revision of the Chen and Yao Devonian and Carboniferous crinoids from western Yunnan. 16th International Congress on Carboniferous and Permian, June 21-24. Nanjing China.
- 2007 Gerard, T., A. B. Love, and J. A. Waters. 2007. Petrography of Volcaniclastic Sediments from the Qijigou Formation (Late Carboniferous) Xinjiang – Uyghur Autonomous Region, China . 2007 GSA Denver Annual Meeting (28–31 October 2007)
- 2007 Waters, J. A. Fouling Filtration Fans: How Changing Sedimentological regimes changed fan orientation in bottom dwelling blastoid. 2007 GSA Denver Annual Meeting (28–31 October 2007)
- 2006 Deltoid and oral plate homology in blastoids; insights from primitive crinoids and modern crinoid development. Geological Society of America, Southeastern Section, 55th annual meeting. Abstracts with Programs - Geological Society of America. 38(3):23. With Colin Sumrall.
- A Re-evaluation of Fammenian Echinoderm Diversity: Implications for Patterns of Extinction and Rebound in the Late Devonian. North American Paleontological Conference. Halifax, Nova Scotia. June 19-26, 2005.
- Mixed-age Echinoderms, Conodonts and Other Fossils from a Mid-Mississippian Impact Resurge Breccia, St. Clair County, Missouri. Geological Society of America, 2005
 Annual meeting. Salt Lake City, UT Oct.16-19, 2005. Abstracts with Programs Geological Society of America. vol. 36(6). With J.F. Miller, K. R. Evans, S. E. Bolyard, T. L. Thompson, G. H. Davis, W. I. Ausich and R. L. Ethington.
- An Overview of Paleozoic Stemmed Echinoderms from China. Geological Society of America, 2005 Annual meeting. Salt Lake City, UT Oct.16-19, 2005. Abstracts with Programs - Geological Society of America. vol. 36(6). With S. A. Marcus, C. G. Maples, H. Hou, Z. Liao, J. Wang, L. Liu.
- 2005 How Many Ossicles do blastoids and echinoderms acutally have? Geological Society of America, 2005 Southeastern sectional meeting. Biloxi, MS. March 17-18, 2005. Abstracts with Programs - Geological Society of America. vol. 36(1)

- Iterative Pelmatozoan Community Reorganization: The Key to Blastoid Success? Italia
 2004; 32nd international geological congress Congres Geologique International, Resumes 32 (200408): 16
- 2004 Bottom Dwelling Blastoids. Geological Society of America, 2004 Annual meeting. Denver, Co. Nov.7-10, 2004. Abstracts with Programs - Geological Society of America. vol. 36(6)
- Iterative Pelmatozoan Community Reorganization: The Key to Blastoid Success? Geological Society of America, 2003 Annual meeting. Seattle, WA. Nov.1-5, 2003. Abstracts with Programs Geological Society of America. vol. 35(6) p.502. with Christopher Maples
- The early ontogenetic development of blastoids. Presented at the Annual meeting of the Palaeontological Association in Cambridge, England. Newsletter 51, p. 41. with Sara Marcus.
- 2002 Micromorphic molluscs from a Carboniferous black shale, Xinxu, PRC. Geological Society of America, 2002 Annual meeting. Denver, CO. October 27-30, 2002. Abstracts with Programs - Geological Society of America. vol. 34(6) p.355. with Trent Hall, Sara Marcus, and Christopher Maples
- Post-metamorphic thecal development in blastoids. Geological Society of America, 2002 Annual meeting. Denver, CO. October 27-30, 2002. Abstracts with Programs
 Geological Society of America. vol. 34(6) p.267. with Sara Marcus
- Paleoecological data analysis of the lower Bangor Limestone, Fox Trap, Alabama. Geological Society of America, 2002 Southeastern regional meeting. Lexington, KY. April 3-5, 2002. Abstracts with Programs Geological Society of America. vol. 34(2):94-95. with Laura Slade
- Supply and demand of drinking water in west Georgia: Baseline water quality parameters for potential reservoirs in Carroll and Haralson Counties, Georgia. Combined Southeastern and North-Central Section Meeting of the Geological Society of America. Abstracts with Programs Geological Society of America. vol. 34(2):84. with Schultz, Bryan S., Curtis L. Hollabaugh, and Randal L. Kath.
- The how-to's in watershed investigation, based on the West Georgia Watershed Assessment of Carroll and Heard Counties, Georgia. Combined Southeastern and North-Central Section Meeting of the Geological Society of America. with Harris, Randa R., Curtis L. Hollabaugh, Julie K. Bartley, and Randal L. Kath.
- Remote sensing and GIS-assisted analyses of land use patterns and their affects on streams in west Georgia. Combined Southeastern and North-Central Section Meeting of the Geological Society of America. Abstracts with Programs - Geological Society of

America. vol. 34(2):82. with Wilson, Crystal G., Curtis L. Hollabaugh, Randal L. Kath.

- 2002 Comparison of historic and recent water quality data for streams not meeting designated usages in west Georgia. Combined Southeastern and North-Central Section Meeting of the Geological Society of America. with Griffin, James R., Curtis L. Hollabaugh, Randal L. Kath, Julie K. Bartley.
- Variations of water quality parameters of 38 streams in west Georgia with seasonality, land usage and rainfall Carroll and Head Counties, Georgia. Combined Southeastern and North-Central Section Meeting of the Geological Society of America. with Hollabaugh, Curtis L., Randa R. Harris, John D. Congleton, Randal L. Kath, Julie K. Bartley.
- Fecal coliform bacteria as an indicator of watershed health: A comparison among variables during watershed assessment, Carroll and Heard Counties, Georgia. Combined Southeastern and North-Central Section Meeting of the Geological Society of America. with Colemen, Alvin L., Julie K. Bartley, Curtis L. Hollabaugh, and Randal L. Kath.
- Baseline water quality parameters for potential reservoirs in Carroll and Haralson Counties, Georgia. Georgia Journal of Science, Vol. 60, No. 1. with Schultz, Bryan S., Curtis L. Hollabaugh, Randal L. Kath.
- Assessing the assessment: How to investigate a watershed based on the West Georgia Assessment of Carroll and Heard Counties, Georgia. Georgia Journal of Science, Vol. 60, No. 1. with Harris, Randa R., Curtis L. Hollabaugh, Julie K. Bartley, and Randal L. Kath.
- Remote sensing and GIS-assisted analyses of land use patterns and their affects on streams in west Georgia. Georgia Journal of Science, Vol. 60, No. 1. with Wilson, Crystal G., Curtis L. Hollabaugh, and Julie K. Bartley.
- Results of the West Georgia Watershed Assessment: Variations of water quality parameters with seasonality, land usage and rain fall. Georgia Journal of Science, Vol. 60, No.
 I. with Hollabaugh, Curtis L., Julie K. Bartley, Randal L. Kath.
- A watershed assessment of tributary streams of the Chattahoochee River in the Piedmont of Heard County, Georgia. Geological Society of America Abstracts with Programs, Vol. 33, No. 6, p. 360. with Davidson, Joseph D., Teddy D. Martin, Curtis L. Hollabaugh, Julie K. Bartley, Randal L. Kath.
- Water quality variations of Centralhatchee Creek, Hillabahatchee Creek, and New River, Heard County, Georgia: The effects of land usage and seasonal variation on surface water quality. Geological Society of America Abstracts with Programs, Vol. 33, No. 6, p. 183. with Martin, Teddy D., Joseph D. Davidson, Curtis L. Hollabaugh, Julie K. Bartley, Randal L. Kath.

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Teaching- University of West Georgia (28 years)

Physical Geology Historical Geology Man, Geology and the Environment Invertebrate Paleontology The Geology of Georgia Dinosaurs Water What do you know about Charles Darwin

Teaching- Appalachian State University (6 years)

Physical Geology Historical Geology Environmental Geology Paleontology Honors Freshman Seminar - Darwin

Service to the profession

Member, Society of Sigma Xi Member, Society of Sedimentary Geology Member, 1982 Present, Paleontological Society National Treasurer, 1993 - 1996, Paleontological Society Secretary (SE Section), 1987 - 1989, Paleontological Society President (SE Section), 1985 - 1986 Paleontological Society Palaeontographical Society (U.K.) Georgia Academy of Science

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