

Curriculum Vitae

JONATHAN D. ARTHUR, Ph.D., P.G.

EDUCATION

B.S. with Honors, Florida State University, 1982
Ph.D., Florida State University, 1994

PROFESSIONAL EXPERIENCE

2021 – present	Executive Director, American Geosciences Institute
2009 – 2021	Director and State Geologist, Florida Geological Survey – Florida Department of Environmental Protection
2008 – 2009	Acting Director, Florida Geological Survey – Florida Department of Environmental Protection
2004 to 2007	Assistant State Geologist, Professional Geologist Administrator – Hydrogeology Section, Florida Geological Survey – Florida Department of Environmental Protection
2000 to 2004	Professional Geologist Supervisor - Hydrogeology Program, Florida Geological Survey – Florida Department of Environmental Protection
1993 to 2000	Professional Geologist I, Florida Geological Survey – Florida Department of Environmental Protection
1987 to 1993	Geologist II, Florida Geological Survey – Florida Department of Environmental Protection
1987	Instructor, Tallahassee Community College
1984-1986	Research Assistant, Florida Geological Survey - Florida Department of Natural Resources
1982-1984	Instructor and Lab Coordinator, Department of Geology, Florida State University
1982	Research Assistant, Northwest Florida Water Management District
1981	Engineering Technician II, Florida Department of Environmental Regulation
1980	Research Assistant, Volusia County Council of Government

AREAS OF SPECIALIZATION

Geoscience leadership, policy, hydrogeology, hydrogeochemistry

GRANTS AND CONTRACTS

2009 – 2021	Multiple; facilitated acquisition of local, regional, state and federal grants of more than \$5M
2006 – 2009	Florida Department of Environmental Protection, Division of Water Facilities Regulation, re: Florida Aquifer Storage and Recovery Geochemical Project: Phase II
2005 – 2007	Barnes, Ferland and Associates, Inc.: Bench-Scale Leaching to Simulate Cycle Testing of Aquifer Storage and Recovery Waters to Assess Mobilization of Metals: Orange Co., Florida
2005 – 2006	CDM Consultants: Bench-Scale Leaching to Simulate Cycle Testing of Aquifer Storage and Recovery Waters to Assess Mobilization of Metals, City of Sanford ASR Facility
2005 – 2009	Southwest Florida Water Management District: Bench-Scale Leaching to Simulate Cycle Testing of Aquifer Storage and Recovery Waters to Assess Mobilization of Metals
2004 – 2005	Florida Department of Environmental Protection, Aquifer Vulnerability Modeling for the Wekiva Springs Basin (Florida) using Bayesian Probabilistic Techniques

GRANTS AND CONTRACTS (continued)

2004 – 2005	CDM Consultants: Bench-scale Leaching to Simulate Cycle Testing of Aquifer Storage and Recovery Waters to Assess Mobilization of Metals, Seminole County ASR facility
2004 – 2007	South Florida Water Management District, re: Comprehensive Everglades Restoration Program – Hydrogeochemistry Project – Geochemical Characterization of the Upper Florida Aquifer in South Florida
2000 – 2009	Florida Department of Environmental Protection, Division of Water Resource Management, re: Florida Aquifer Vulnerability Assessment project, Phase I and II
1996 – 1999	Co-principal Investigator, US Geological Survey, STATEMAP, re: Bedrock and Surficial Geology of the Western Portion of the Sarasota 1:100000 Quadrangle, Sarasota County, Florida
1996 – 2006	Florida Department of Environmental Protection, Division of Water Facilities Regulation, re: Florida Aquifer Storage and Recovery Geochemical Project: Phase I
1995 – 2007	Southwest Florida Water Management District, Resource Projects Department, re: Hydrogeologic Framework of Southwest Florida
1995 – 1996	Florida Advisory Council on Environmental Education, re: Florida Geology Education Video Project
1992 – 1999	Southwest Florida Water Management District, Resource Data Department, re: Lithostratigraphic and Hydrostratigraphic Cross Sections in Southwest Florida
1985	U.S. Geological Survey, Reston, Virginia, re: Mesozoic Basin Project
1983	Virginia Division of Mineral Resources, Charlottesville, Virginia, re: Mesozoic Diabase Project

PROFESSIONAL SOCIETIES

American Association for the Advancement of Science
American Association of Petroleum Geologists
American Geophysical Union
American Institute of Professional Geologists – Florida Association of Professional Geologists
Association of American State Geologists (honorary member)
Council of Engineering and Scientific Society Executives
Geological Society of America

HONORS AND AWARDS

2022	Association of American State Geologists Distinguished Service Award
2017	John T. Galey, Sr. Memorial Public Service Award, American Institute of Professional Geologists
2011	Award of Distinction, Davis Productivity Awards (team member) Plant City Sinkhole Response Team, Florida Department of Environmental Protection
2008	Florida Geological Survey - Sustained Exemplary Performance
2007	Fellow, Geological Society of America
Multiple years	Florida Geological Survey Extra Effort Team Award
1997	Governor's Environmental Education Awards for Florida's Geology Unearthed
1997	Florida Department of Environmental Protection Employee of the Month (April)
1997	Florida Department of Environmental Protection Sustained Exemplary Performance Award
1997	New York Festivals, Finalist: Non-Broadcast Video Production for Florida's Geology Unearthed
1996	Employee of the Year, Florida Geological Survey
1996	Award of Distinction, The Communicator, for Florida's Geology Unearthed
1995 - present	Courtesy Faculty, Department of Earth, Ocean and Atmospheric Sciences, Florida State University
1991 - 1992	Special School Volunteer, Leon County Schools
1984 - 1985	Graduate Student Representative to Faculty, Department of Geology, Florida State University
1983	Banks-Chevron Award, Florida State University, Tallahassee, Florida
1983	Sigma Xi Grant-in-Aid of Research
1983	Outstanding Senior, Department of Geology, Florida State University

PROFESSIONAL LICENSE

Board of Professional Geologists, State of Florida, License No. 1149

SERVICE TO THE PROFESSION

2022 -	U.S. National Committee for Geological Sciences, NASEM
2022 -	Steering Committee, GeoScienceWorld
2018 – 2022	Water Science and Technology Board, National Academy of Sciences, Engineering and Medicine
2017 – 2020	Board of Directors, American Geosciences Institute
2016 – 2019	Florida Board of Professional Geologists, Department of Business and Professional Regulation
2015 – 2016	Past President, Association of American State Geologists
2014 – 2015	President, Association of American State Geologists
2013 – 2014	President Elect, Association of American State Geologists
2012 – 2013	Vice President, Association of American State Geologists
2010 – 2012	Treasurer, Association of American State Geologists
2009 – 2014	Florida Board of Professional Geologists, Department of Business and Professional Regulation
2007 – 2009	Executive Committee, Florida Section, American Institute of Professional Geologists
2003 – 2006	President, Florida Association of Professional Geologists

SCIENTIFIC EDITORSHIP

Provided review of the National Water Quality Management Strategy Document, Australian Natural Resource Management Ministerial Council; served as reviewer for the following peer-reviewed journals:

- Applied Geochemistry
- Clean: Soil, Air, Water
- Environmental Geology
- Environmental Science and Technology
- Groundwater
- Hydrogeology Journal
- Natural Resources Research
- Water Environment Research
- Water Resource Management
- Environmental and Engineering Geoscience

TESTIMONY and BRIEFINGS

The Florida Sinkhole Experience; presented to the Hazards Caucus Alliance and Congressional Hazards Caucus during Sizing Up Sinkholes: Science and Technology to Mitigate Karst Hazards, May 2017, Washington D.C.
Florida Department of Economic Opportunity vs. Lake County, Florida and Rubin Groves of Clermont, LLC, May 2015
Reauthorization of the National Geological and Geophysical Data Preservation Program Act of 2005 through 2019; presented to the US House Subcommittee on Mineral and Energy Resources, September 2014, Washington DC
Sinkholes in Florida; presented to the US House Committee on Natural Resources, April 2013, Washington DC
Angelo's Aggregated Materials, LTD. v. Florida Department of Environmental Protection and others (Land use and sinkhole potential), September 2012, Tampa, Florida
Florida Department of Community Affairs v. Volusia County and Miami Corporation (Land use), August 2010, Deland
Highland Lake Estates and others, v. Republic Services of Florida and Florida Department of Environmental Protection (Land Use and Sinkhole Potential), March 2010, Tampa, Florida
Geology of Florida, Florida House of Representatives Select Policy Council on Strategic & Economic Planning, November 2009, Tallahassee, Florida

OTHER SERVICE ACTIVITIES

2022	Moderator, Status of US Aquifers under a Changing Climate, May 10, 2022, Future of Managed Aquifer Recharge in the United States, Washington DC
2020 – present	Aquifer Storage and Recovery Peer Review Panel (Chair), South Florida Water Management District, Comprehensive Everglades Restoration Plan
2020 – present	US Geological Survey Roundtable on Geospatial Knowledge Infrastructure

OTHER SERVICE ACTIVITIES (continued)

2019 – 2020	American Geosciences Institute Strategic Outlook Committee (Chair)
2019	Moderator, “Is Florida Ready for Potable Reuse?” 33 rd Environmental Permitting Summer School, July 16, 2019, Marco Island, Florida
2017 - present	Steering Committee, Florida Coastal Mapping Program
2017	Executive Planning Committee, Florida LiDAR Assessment
2014 - 2016	Chair, Florida Geoscience Workgroup (inter- and intra-agency geoscience communications)
2104 - 2018	Member, Committee to Review the Edwards Aquifer (Texas) Habitat Conservation Program, Water Science and Technology Board, National Academy of Sciences, Engineering and Medicine
2014	Member, Florida Intergovernmental Renewable Energy Task Force – US Bureau of Ocean Energy Management
2014	Chair, Big Cypress Swamp Advisory Committee
2011-2012	Member, Florida Department of Environmental Protection Oceans and Coastal Functions Workgroup
2011	Moderator, “Hydrogeology II: Hydrostratigraphy and Water Quality,” Geological Society of America Annual Meeting, October 9, 2011, Minneapolis, MN
2010 - 2011	Co-chair, Florida Oil Spill Academic Task Force
2009 - 2012	Florida Department of Environmental Protection Sinkhole Technical Advisory Group
2007 - 2008	Member, Workgroup on Geological and Geophysical Data Preservation Grant Program, US Geological Survey
2007	Member, Florida Department of Environmental Protection, Joint Application Development Team for Authorizations
2005 - 2007	Member, Committee on the Sustainable Underground Storage of Recoverable Water, Water Science and Technology Board, National Research Council
2005	Moderator, Stormwater Runoff Panel, <i>in Solving Water Pollution Problems in the Wakulla Springshed of North Florida</i> , May 12-13, Tallahassee, Florida
2004	Moderator, Landowner Relations Panel, <i>in National Speleological Society – Cave Diving Section</i> ; May 28-30, Gainesville, Florida
2003	Panel Moderator, Utilization of Cave Data in Hydrogeological Investigations, <i>in Significance of Caves in Watershed Management and Protection in Florida</i> , Florida Department of Environmental Protection, April 16-17, Ocala, Florida
2002	Panel Moderator, Delineation of Springshed Boundaries, <i>in Workshop to Develop Blueprints for the Protection and Management of Florida’s Springs</i> , Florida Department of Environmental Protection, May 8-9, Ocala, Florida
2000 - 2004	Member, ASR Issue Team, Working Group of the South Florida Ecosystem Restoration Task Force
2000 - 2002	Member, Tampa Bay Water Regional Reservoir Technical Advisory Committee, Florida Department of Environmental Protection
2000 - 2009	Member, Comprehensive Everglades Restoration Plan Aquifer Storage and Recovery Project Delivery Teams <ul style="list-style-type: none">• Lake Okeechobee Pilot Project• Western Hillsboro Pilot Project• Caloosahatchee Pilot Project• Regional Hydrogeology Study
2000 - 2007	Member, Aquifer Storage and Recovery Technical Advisory Committee, Florida Department of Environmental Protection
1999 - 2000	Member, Statewide Council on Environmental Education (SCENE)
1998	Florida Representative, US Geological Survey National Geologic Mapping Database
1997	Chairman, Geology/Hydrology session, Florida Academy of Sciences Annual Meeting
1996 - 2000	State Co-Coordinator, Southeast Mapping and Aerial Photographic Systems (MAPS) project – Florida region, National Science Foundation funded Clemson University
1996 - 1998	Member, Statewide Monitoring Program Core Group, Florida Department of Environmental Protection

OTHER SERVICE ACTIVITIES (continued)

- 1994 - 1999 Member, Subcommittee on Aquifer Vulnerability Mapping in Florida, Recharge Protection Committee, Florida Department of Environmental Protection
- 1994 - 1997 Committee Member, Florida Department of Professional Regulation, Board of Professional Geologists Exam
- 1994 -1995 Member, Technical Advisory Committee, Florida Department of Environmental Protection, re: Phosphogypsum-stack sinkhole, Polk County
- 1993 Co-chair, Pre-Cretaceous evolution of Florida and the Southeast Coastal Plain, Geological Society of America, Southeastern Section Meeting, Tallahassee, Florida
- 1991 Judge, International Science and Engineering Fair – Earth Sciences, Orlando, Florida

GRADUATE STUDENTS ADVISED

- Clint Kromhout, M.S., Department of Earth, Ocean and Atmospheric Sciences, Florida State University (2020 – present)
- Olesya Lazareva, Ph.D., Department of Geology, University of South Florida (2005-2010)
- Angela Dippold, M.S. Department of Geology, University of South Florida (2007-2009)
- Olesya Lazareva, M.S., Department of Geology, University of South Florida (2004)
- Ted Zateslo, M.S., Department of Geology, Florida State University (1998)

PUBLICATIONS - Thesis/Dissertation

- Arthur, J.D., 1994, Alteration effects associated with Mesozoic diabase intrusives and their host rocks in rift basins from Maryland and Virginia, [Ph.D. dissertation]: Florida State University, Tallahassee, 463 p.
- Arthur, J.D., 1982, Petrogenesis of the Blakes Ferry pluton, Randolph County, Alabama [Senior Honor's Thesis]: Florida State University, 56 p.

PUBLICATIONS – Peer-reviewed

- National Academies of Sciences, Engineering, and Medicine (contributing author), 2018, Review of the Edwards Aquifer Habitat Conservation Plan: Report 3: The National Academies Press, Washington, D.C., 190 p.
- National Academies of Sciences, Engineering, and Medicine (contributing author), 2017, Review of the Edwards Aquifer Habitat Conservation Plan: Report 2: The National Academies Press, Washington, D.C., 176 p.
- National Research Council (contributing author), 2015, Review of the Edwards Aquifer Habitat Conservation Plan: Report 1: The National Academies Press, Washington, DC, 186 p.
- National Research Council (contributing author), 2008, Prospects for Managed Underground Storage of Recoverable Water: The National Academies Press, Washington, D.C., 350 p.
- Sheng, Z., Arthur, J., Restrepo, J., and Allen-King, R., 2007, On Recovery Efficiency of Managed Underground Storage of Recoverable Water Systems, *in*: Fox, P., ed., Management of Aquifer Recharge for Sustainability, Acacia Publishing, Phoenix, Arizona, p. 84-95.
- Arthur, J.D., Dabous, A.A., and Fischler, C., 2007, Aquifer Storage and Recovery in Florida: Geochemical Assessment of Potential Storage Zones, *in*: Fox, P., ed., Management of Aquifer Recharge for Sustainability, Acacia Publishing, Phoenix, Arizona, p. 185-197.
- Arthur, J.D., Wood, H.A.R., Baker, A.E., Cichon, J.R., Raines, G.L., 2007, Development and Implementation of a Bayesian-based Aquifer Vulnerability Assessment in Florida: Natural Resources Research, Vol. 16, No. 2, p. 93- 107.
- Arthur, J.D., Dabous, A.A., and Cowart, J.B., 2005, Chapter 24: Water-rock Geochemical Considerations for Aquifer Storage and Recovery: Florida Case Studies, *in* Tsang, C-F. and Apps, J.A., eds., Underground Injection Science and Technology, Developments in Water Science, Amsterdam, Elsevier, v. 52, p. 327-339.
- Ragland, P.C., Cummins, L.E. and Arthur, J.D., 1992, Compositional Patterns for Early Mesozoic ENA Diabases from South Carolina to Central Virginia, *in* Puffer, J. and Ragland, P. C., (eds.), Eastern North American Mesozoic magmatism: Geological Society of America Special Paper 268, p. 309-331.
- Cummins, L.E., Arthur, J.D. and Ragland, P.C., 1992, Tectonic Implications of Early Mesozoic Basaltic Magma Types of the Circum-Atlantic, *in* Puffer, J. and Ragland, P. C., (eds.), Eastern North American Mesozoic Magmatism: Geological Society of America Special Paper 268, p. 119-135.

PUBLICATIONS – Peer-reviewed (continued)

- Arthur, J.D., Melkote, S., Applegate, J., and Scott, T.M., 1989, Heavy-mineral Reconnaissance off the Coast of the Apalachicola River Delta, northwest Florida: A Summary and New interpretations: *Marine Geology*, v. 90, no. 1/2, p. 51-58.
- DeFant, M.J., Drummond, M.S., Arthur, J.D., and Ragland, P.C., 1988, An Example of Trondhjemite Petrogenesis: the Blakes Ferry Pluton, Alabama, U.S.A.: *Lithos*, v. 21, p. 161-181.
- Ragland, P.C. and Arthur, J.D., 1988, Element Mobility During Alteration of Lower Mesozoic Diabase Sheets, Culpeper basin, Virginia, *in* Froelich, A.J. and Robinson, G.R., (eds.), *Studies of the Early Mesozoic Basins of the Eastern United States*, U.S. Geological Survey Bulletin 1776, p. 165-175.
- Defant, M.J., Drummond, M.S., Arthur, J.D., and Ragland, P.C., 1987, Petrogenesis of the Blakes Ferry pluton, Randolph County, Alabama, *in* Drummond, M.S. and Green, N.L., (eds.), *Granites of Alabama*, Geological Survey of Alabama, Tuscaloosa, Alabama, p. 97-116.
- Ragland, P.C. and Arthur, J.D., 1985, Petrology of the Boyd's Diabase Sheet, Northern Culpeper basin, Maryland, *in* Robinson, G.R. and Froelich, A.J., (eds.), *Proceedings of the second U.S. Geological Survey Workshop on the Early Mesozoic Basins of the Eastern United States*: U.S. Geological Survey Circular 946, p. 91-99.

FILM PRODUCTIONS

- Singer, M., Jablonski, J. and Arthur, J., 2003, Florida's Aquifer Adventure, 20 minutes, Global Underwater Explorers, Florida Geological Survey/Florida Department of Environmental Protection, Hazlett-Kincaid, Inc.
- Arthur, J., 1996, Florida's Geology Unearthed, 60 minutes, Florida Geological Survey and Diane Wilkins Productions, Tallahassee, Florida.

PUBLICATIONS - Technical Reports, Maps and Field Guides

- Arthur, J., Baker, A., Cichon, J., Wood, A., and Rudin, A., 2017, Florida Aquifer Vulnerability Assessment: Contamination potential models of Florida's principal aquifer systems, *Florida Geological Survey Bulletin* 67, 148 p., 3 plates.
- Fischler, C. and Arthur, J., 2014, Geochemical, Mineralogical and Petrographic Characterization of Rocks Comprising the Upper Floridan Aquifer in South Florida, *Florida Geological Survey Report of Investigation* 113, 137 p.
- Arthur, J.D., Fischler, C., Kromhout, C., Clayton, J., Kelley, G.M., Lee, R.A., Li, L., O'Sullivan, M., Green, R., and Werner C., 2008, Hydrogeologic Framework of the Southwest Florida Water Management District: *Florida Geological Survey Bulletin* 68, 102 p., 47 plates.
- Cichon, J., Baker, A., Wood, A., and Arthur, J., 2005, Wekiva Aquifer Vulnerability Assessment: *Florida Geological Survey Report of Investigation* 104, 36 p.
- Arthur, J.D., Dabous, A.A., and Cowart, J.B., 2002, Mobilization of Arsenic and other Trace Elements During Aquifer Storage and Recovery, southwest Florida: U.S., Geological Survey Artificial Recharge Workshop Proceedings, Sacramento, California, April 2-4, 2002: U.S. Geological Survey Open File Report 02-89, p. 44-47.
- Arthur, J.D., Cichon, J., Baker, A., Marquez, J., Rudin, A., and Wood, A., 2002, Hydrogeologic Mapping and Aquifer Vulnerability Modeling in Florida: 2D and 3D Data Analysis and Visualization, *in* Thorleifson, L.H., and Berg, R.C., (eds.), *Three-dimensional Geological Mapping for Groundwater Applications*, Denver, Colorado – October 26, 2002, Geological Survey of Canada, Open File 1449, p. 1-4.
- Williams, H., Arthur, J.D. and Cowart, J.B., 2002, Florida Aquifer Storage and Recovery Geochemical Study: Year One and Year Two Progress Report: *Florida Geological Survey Report of Investigation* 100, 129 p.
- Arthur, J.D., Cowart, J.B., and Dabous, A., 2001, Florida Aquifer Storage and Recovery Geochemical Study: Year Three Progress Report, *Florida Geological Survey Open File Report* 83, 46 p.
- Arthur, J.D., Lee, R.A., and Li, L., 2001, Lithostratigraphic and Hydrostratigraphic Cross Sections through Levy, Citrus, Hernando and Pasco Counties, Florida: *Florida Geological Survey Open File Report* 81, 31 p.
- Scott, T.M., Campbell, K.M., Rupert, F.R., Arthur, J.D., and others, 2001, Geologic Map of the State of Florida: *Florida Geological Survey Map Series* 146.
- Arthur, J.D. and Pollock, W.H., 1998, Use of ArcView GIS for Geologic Surface Modeling - Preliminary Results from Sub-Surface Mapping in Southwest Florida *in* Soller, D., (ed.), *Proceedings of the Second Annual Workshop on Digital Mapping Techniques: Methods for Geologic Map Data Capture, Management and Publication*: U.S. Geological Survey Open File Report 98-487, p.73-78.

PUBLICATIONS - Technical Reports, Maps and Field Guides (continued)

- Arthur, J.D., 1997, Florida In Depth: Florida Living Magazine, North Florida Publishing Co., Gainesville Florida, Volume 17, Issue 8, p. 70-71.
- Green, R., Campbell, K., Arthur, J. and Scott, T., 1997, Geologic Map of the Western portion of the 1:100,000 scale Sarasota Quadrangle: Florida Geological Survey Open File Map Series 86.
- Arthur, J.D., 1997, Digital Mapping Projects at the Florida Geological Survey, *in* Soller, D., (ed.), Proceedings of a Workshop on Digital Mapping Techniques: Methods for Geologic Map Data Capture, Management and Publication: U.S. Geological Survey Open File Report 97-269, p. 57-59.
- Rupert, F. and Arthur, J.D., 1997, Geology and Geomorphology, *in* Coultas, C.L. and Hsieh, Y., (eds.), Ecology and Management of Tidal Marshes - A Model from the Gulf of Mexico, St. Lucie Press, Delray Beach, Florida, p. 35 - 52.
- Tihansky, A., Arthur, J.D. and DeWitt, D., 1996, Sublake Geologic Structure from High Resolution Seismic Reflection Data from Four Sinkhole Lakes in the Lake Wales Ridge, Central Florida: U.S. Geological Survey Open File Report 96-224, 72 p.
- Green, R., Arthur, J.D. and DeWitt, D., 1995, Lithostratigraphic and Hydrostratigraphic Cross Sections through Hillsborough and Pinellas Counties, Florida: Florida Geological Survey Open File Report 61, 16 p.
- Arthur, J.D., Bond, P., Rupert, F., and Scott, T.M., 1994, Florida's Global Wandering Through the Geologic Eras, *in* Lane, E., (ed.), Florida's Geologic History and Geological Resources: Florida Geological Survey Special Publication No. 35, p. 11-22.
- Arthur, J.D., 1993, Geologic Map of Desoto County: Florida Geological Survey Open File Map Series No. 58.
- Campbell, K.M., and Arthur, J.D., 1993, Geologic Map of Sarasota County: Florida Geological Survey Open File Map Series No. 57.
- Arthur, J.D., 1993, Geologic Map of Highlands County: Florida Geological Survey Open File Map Series No. 52.
- Campbell, K.M., and Arthur, J.D., 1993, Geologic Map of Hillsborough County: Florida Geological Survey Open File Map Series No. 45.
- Arthur, J.D., and Campbell, K.M., 1993, Geologic Map of Pinellas County: Florida Geological Survey Open File Map Series No. 44.
- Arthur, J.D., Geologic map of Pasco County, 1993, Florida Geological Survey Open File Map Series No. 42.
- Arthur, J.D., 1991, Geology, Geomorphology and Hydrogeology of Lafayette County, Florida: Florida Geological Survey Open File Report No. 46, 10 p.
- Rupert, F. and Arthur, J.D., 1991, The Geology and Geomorphology of Florida's Coastal Marshes: Florida Geological Survey Open File Report 34, 12 p.
- Arthur, J.D. and Rupert, F.R., 1989, Selected Geomorphic Features of Florida, *in* Scott, T.M., Arthur, J.D., Rupert, F.R., and Upchurch, S., (eds.), 1989, The Lithostratigraphy and Hydrostratigraphy of the Floridan Aquifer system in Florida; International Geological Congress Fieldtrip Guidebook T-185: American Geophysical Union, Washington, D.C., p. 10-14.
- Scott, T.M., Arthur, J.D., Rupert, F.R., and Upchurch, S., (eds.), 1989, The Lithostratigraphy and Hydrostratigraphy of the Floridan Aquifer System in Florida; I.G.C. Fieldtrip Guidebook T-185: American Geophysical Union, Washington, D.C., 78 p.
- Arthur, J.D., 1988, The Geology of Flagler County, Florida: Florida Geological Survey Open File Report 24, 14 p.
- Arthur, J.D., 1988, Petrogenesis of Early Mesozoic Tholeiite in the Florida Basement and an Overview of Florida Basement Geology: Florida Geological Survey Report of Investigation 97, 39 p.
- Arthur, J.D., Melkote, S., Applegate, J., and Scott, T.M., 1985, Heavy Mineral Reconnaissance off the coast of the Apalachicola River Delta, Northwest Florida: Florida Bureau of Geology Report of Investigation 95, 61 p.

PUBLICATIONS – Abstracts

- Means, H. and Arthur, J.D., 2019, Highlighting Florida's Geoheritage through dedication of State geologic Sites, Geological Society of America Abstracts with Programs, Vol. 51, No. 5.
- Arthur, J.D., 2008, Applications of Aquifer Vulnerability Assessments in Florida: Geological Society of America Abstracts with Programs, Vol. 40, No. 6, p. 209.
- Arthur, J.D., 2008, Importance of Hydrogeochemical Bench Studies for Assessment of Potential Water-Quality Issues Related to Managed Underground Storage: Geological Society of America Abstracts with Programs, Vol. 40, No. 6, p. 212.
- Kromhout, C. and Arthur, J., 2006, Aquifer Framework Mapping in SW Florida: Data Management, Interpolation, and Statistical Validation: Geological Society of America Abstracts with Programs, Vol. 38, No. 7, p. 108
- Wood, A.R., Cichon, J.R., Baker, A.E., Arthur, J.D., 2006, Aquifer Vulnerability Assessment Using Weights of Evidence Methodology: American Water Resources Association Proceedings, Houston, TX.
- Arthur, J.D., Dabous, A., and Fischler, C., 2005, Application of Bench-Scale Leaching Studies to Predict Hydrogeochemical Processes During Aquifer Recharge: Geological Society of America Abstracts with Programs, v. 37, no. 7, p. 166.
- Arthur, J., Wood, A., Baker A., Cichon, J., and Raines G., 2005, Application of Weights of Evidence to Predict the Contamination Potential of Florida's Principal Aquifers: International Association of Mathematical Geology Annual Conference, August 21-25, 2005, Toronto.
- Mirecki, J., Bednar, A., Arthur, J., and Molina, L., 2005, Trends in Arsenic and Radium Geochemistry During Aquifer Storage and Recovery in the Upper Floridan aquifer, Lee County, Florida: 2005 NGWA Naturally Occurring Contaminants Conference: Arsenic, Radium, Radon, and Uranium, February 24-25, 2005, Charleston, South Carolina.
- Denizman, C., Kincaid, T., Arthur, J., and DeHan, R., 2004, Karst Development in Florida: Spatial analyses based on subsurface and surficial karst databases in GIS: Geological Society of America Abstracts with Programs, v. 36, no. 5, p. 134.
- Pichler, T., Arthur, J., Price R., and Jones, G., 2004, The Arsenic Problem during Aquifer Storage and Recovery (ASR): *Geochimica Cosmochimica Acta*, Volume 68, Issue 11, Supplement 1, p. 520.
- Kincaid, T.R., Denizman, C., Arthur, J.D., and Hazlett, T., 2004, The Florida Cave Database: A GIS of Underwater Caves for Hydrogeological Characterizations: Geological Society of America Abstracts with Programs, v. 36, no. 2, p. 85.
- Cichon, J., Baker, A., Arthur, J., Wood, A, and Means, G, 2003, Florida Aquifer Vulnerability Assessment (FAVA): Utilizing Geologic Mapping Data to Predict Aquifer Vulnerability: Geological Society of America Abstracts with Programs, v. 35, no. 6, p. 65
- Cichon, J.R., Arthur, J., Baker, A., and Wood, H.A.R., 2003, Florida Aquifer Vulnerability assessment: *Florida Scientist*, v. 66, Supplement 1, p. 54.
- Rudin, A., Baker, A., Wood, A., Cichon, J., Arthur, J., and Ashby, B., 2003, Creating a Statewide Digital Elevation Model (DEM) from US Geological Survey 1:24000 topographic map contour lines: *Florida Scientist*, v. 66, Supplement 1, p. 51-52.
- Wood, H.A.R., Arthur, J.D., Ashby, B.N., Baker, A.E., and Cichon, J.R., 2003, Mapping the Intermediate Confining Unit/Intermediate Aquifer System in Florida: *Florida Scientist*, v. 66, Supplement 1 p. 53.
- Baker, A.E., Cichon, J.R., Arthur, J.D., and Raines, G.L., 2002, Florida Aquifer Vulnerability Assessment: Geological Society of America Abstracts with Programs, v. 34, no. 6, p. 346.
- Baker, A.E., Cichon, J.R., Arthur, J.D. and Kher, S., 2002, Florida Aquifer Vulnerability Assessment (FAVA): Development of a Vulnerability Model for Florida's Aquifers: *Florida Scientist*, v.65, p. 47
- Wagner, J., Anderson, J, Arthur, J, et al., 2001, SE MAPS: A Hands-on Integrated Curriculum Package Introducing Remote Sensing Technology to the Secondary School Classroom: Geological Society of America, Abstracts with Programs, v. 33, no. 2, p. A-13.
- Arthur, J.D., Cowart, J. and Dabous, A., 2000, Arsenic and Uranium Mobilization During Aquifer Storage and Recovery in the Floridan Aquifer System: Geological Society of America Abstracts with Programs, v. 32, no. 7, p. 356.
- Anderson, J.R. and Arthur, J.D., 1999, SE MAPS: Woodville Karst Plain, the Central Peninsula and South Florida: Geological Society of America Abstracts with Programs, v. 31, no. 3, p. A-2.
- Arthur, J.D. and Pollock, B., 1998, Hydrologic framework of Southwest Florida: 2D and 3D models of "The Bucket that Holds the Water," GIS – An Effective Tool for Environmental Decision-Making: Florida Department of Environmental Protection GIS conference, October 14-15, 1998, p. 17.

PUBLICATIONS – Abstracts (continued)

- Cowart, J.B., Williams, H.K. and Arthur, J.D., 1998, Mobilization of U isotopes by the Introduction of Surface Waters into a Carbonate Aquifer: Geological Society of America Abstracts with Programs, v. 30, no. 7, p. A-86.
- Cowart, J.B., Williams, H.K., and Arthur, J.D., 1997, Low $^{234}\text{U}/^{238}\text{U}$ Activity Ratios and Increased U Concentrations in Waters Injected into a Shallow Aquifer in Florida: Geological Society of America Abstracts with Programs, v. 29, no. 6, p. A-261.
- Arthur, J.D., 1997, Earth Science Education and Environmental Stewardship - a video entitled: “*Florida’s Geology Unearthed*,” Geological Society of America Abstracts with Programs, v. 29, no. 6, p. A-388.
- Arthur, J. and Kelley, M., 1997, Subsurface Geological Mapping in Southwest Florida - a GIS approach: Florida Scientist, Vol. 60, Supplement 1, p. 28.
- Maddox, G. and Arthur, J., 1996, An Overview of the Florida Aquifer Vulnerability Assessment Project: Florida Scientist, v. 59, p.
- Arthur, J.D., Tihansky, A., and DeWitt, R., 1995, Stratigraphic Variability in Confining Materials Overlying the Floridan Aquifer System in a Regional and Local (sub-lake) Geologic Framework: Lake Wales Ridge, Central Florida; SEPM Congress on Sedimentary Geology, v. 1, p. 26.
- Arthur, J.D. and Ragland, P.C., 1994, Multiple Injection of Magma from Two Mantle Sources into the East Gainesville Diabase Sheet, Culpeper Basin, Virginia: Geological Society of America Abstracts with Programs, v. 26, no. 3, p. 3.
- Arthur, J.D., DeWitt, D. and Green, R., 1994, Lithostratigraphy and General Aquifer-System Characteristics of Southwest Florida: A cooperative study: Florida Scientist, v. 57, Supplement 1, p. 38-39
- Milla, K., Ragland, P.C. and Arthur, J.D., 1993, Compositional Patterns of Surface and Subsurface Early Mesozoic Tholeiites in Alabama, Florida and Georgia: A Preliminary Report: Geological Society of America Abstracts with Programs, v. 25, no. 4, p. 57.
- Drummond, M.S., DeFant, M.J., Arthur, J.D., and Ragland, P.C., 1988, Petrogenesis of the Blakes Ferry pluton, Alabama Appalachians: Geological Society of America Abstracts with Programs, v. 20, no. 4, p. 26.
- Arthur, J.D., Ragland, P.C. and Harris, D.R., 1988, Early Mesozoic Tholeiitic Rocks from the Subsurface of Florida: Geological Society of America Abstracts with Programs, v. 20, no. 4, p. 252.
- Arthur, J.D. and Ragland, P.C., 1986, Petrogenetic Interpretation of Petrography and Groundmass Calculations for the Boyd’s Diabase Sheet, Maryland: Geological Society of America Abstracts with Programs, v. 18, no. 3, p. 210.
- Arthur, J.D., Ragland, P.C., and Parker, W.C., 1985, Q-mode Factor Analysis of ENA Diabases from Southeastern U.S.A.: Geological Society of America abstracts with Programs, v. 17, no. 2, p. 78.
- Arthur, J.D. and Defant, M.J., 1983, Petrogenetic Implications of Mixing Calculations from the Blakes Ferry Pluton, Randolph County, Alabama: Geological Society of America Abstracts with Programs, v. 15, no. 2, p. 45-46.

INVITED PRESENTATIONS (selected)

- AASG Annual Meeting Plenary – June xx 2022, The Geoscience Horizon
- The State of Aquifers in Florida, August 2019, Geological Engineering Survey Institute of Qingdao, Qingdao City, Shandong Province, China
- Cracking Open GEODES: A Database Evolution, June 2019, Association of American State Geologists Annual Meeting, Butte, MT
- Ask the State Geologist, September 2018, Science Café, Gillespie Museum, Stetson University, Deland, Florida
- Florida’s Aquifers, October 2018, Public Land Acquisition and Management Partnership Conference, Sarasota, Florida
- Fingerprints on our Groundwater, August 2018, Florida Department of Health, Hillsborough County Environmental Health Services, Tampa, Florida
- Emerging Issues in Florida Karst Geoscience (Keynote), November 2017, First Annual Karst Symposium, Florida State University, Tallahassee, Florida
- The Nexus Between Environmental Policy and Karst Research in Florida, July 2017, Hohai University, Nanjing, China
- A Review of Hydrogeology and Ecosystem Restoration Plans for the Edwards Aquifer, Texas, July 2017, International Research Center on Karst, Training Course on Karst Hydrogeology, Environmental Geology, and Ecological Geology, Kunming, China
- Selected Research and Considerations Regarding the Karst Critical Zone, USA, July 2017, Council of the International Geoscience Programme, Project 661; Kunming, China

INVITED PRESENTATIONS (selected; continued)

- How Should We Define the Scope, Structure, and Content of Geologic Maps in the 21st Century?, August 2016, National Coalition on Geologic Mapping Strategic Planning Workshop, Lakewood, Colorado
- Florida Hydrogeology and Hydrogeochemistry, May 2016, Division of Waste Management, Florida Department of Environmental Protection, May 2016, Tallahassee, Florida
- Communicating Geoscience Value, June 2016, Association of American State Geologist Annual Meeting, AASG Girdwood, Alaska
- Florida's Water Resource Outlook, Second Annual Winter Water Seminar Tallahassee, Florida, February 18, 2016
- The Floridan Aquifer System, October 2014, Sharing Water Conference, Monticello, Florida
- Florida Rocks Down Under (Keynote), September 2014, Metropolitan Environmental Training Alliance, Orlando, Florida
- Florida Geology and Hydrogeology, October 2014, Environmental Protection Agency Regional Wetlands "401 Workshop", Wakulla, Florida
- Sinkhole Types and Occurrences in Florida, November 2013, Karst Hydrogeological Investigation, Dynamic Monitoring and Application in River basin, International Research Center on Karst, Guilin, China
- Aquifer Vulnerability Modeling in Karst, November 2013, Karst Hydrogeological Investigation, Dynamic Monitoring and Application in River basin, International Research Center on Karst, Guilin, China
- Sinkhole Characterization and Prediction in Florida, November 2013, National Research Council, Board on Earth Sciences and Resources, Committee on Geologic and Geotechnical Engineering, Washington, DC
- What's your plan? Strategies for Sustainability (of State Geological Surveys), June 2013, Association of American State Geologists, Deadwood, South Dakota
- Springsheds 101, April 2013, Florida Chamber of Commerce Environmental Summer School, Naples, Florida
- Hydrogeology of Florida, February 2013, Capstone Lecture, Florida State University Department of Earth, Ocean and Atmospheric Sciences, Tallahassee, Florida
- Basement Geology of Florida, May 2012, Florida State University Department of Earth, Ocean and Atmospheric Sciences, Tallahassee, Florida
- Geology and Land Use, May 2012, Florida State University Department of Urban and Regional Planning, Tallahassee, Florida
- Arsenic: geological perspectives from Florida, January 2012, Electric Power Research Institute, Arsenic Working Group, Pensacola, Florida
- Geology of Florida (Keynote), November 2011, Association of Earth Science Editors Annual meeting, Tallahassee, Florida
- Emerging Groundwater Issues of the Southern United States, May 2011, American Institute of Professional Geologists, Florida Section, St. Augustine, Florida
- Geo-survival - Geoscience Workforce Sustainability (Keynote), September 2010, American Institute of Professional Geologists Annual Meeting, Orlando, Florida
- Geologic and Hydrogeologic Considerations for Surplus of State Lands, August 2010, Florida Acquisition and Restoration Council, Tallahassee, Florida
- Scientific and Technical Issues Related to Aquifer Storage and Recovery, May 2009, Environmental Protection Agency, Chicago, Illinois
- Florida's Geologic Connection to Africa, February 2009, Florida Chautauqua Assembly, DeFuniak Springs, Florida
- Aquifer Vulnerability in Florida, February 2009, Jacksonville Department of Environmental Quality, Jacksonville, Florida
- Ongoing Hydrogeology Projects at the Florida Geological Survey, August 2008, Florida Department of Environmental Protection Underground Injection Control Annual Meeting, Orlando, Florida
- Monitoring and Management Issues, March 2008, Forum on Policy, Regulatory and Economic Issues Identified in the 2008 National Research Council Report: Prospects for Managed Underground Storage of Recoverable Water, Washington DC
- Committee on Sustainable Underground Storage of Recoverable Water - Water Science and Technology Board - National Research Council of the National Academy of Sciences, September 2007, ASR VII Forum, American Ground Water Trust, Tampa, Florida
- Underground Carbon Injection, July 2007, Central District Power Generation Conference, Florida Department of Environmental Protection, Co-Sponsored by Orlando Utilities Commission, The Power Industry and CO2PERATION on Global Warming, Orlando, Florida

INVITED PRESENTATIONS (selected; continued)

Web Design: Guidelines and Trends, June 2007, Association of American State Geologists, Key Largo, Florida
Karst Aquifer Characterization and Aquifer Vulnerability, March 2007, National Ground Water Association Workshop, Safety Harbor, Florida

Selected Presentations related to *water-rock interactions during aquifer storage and recovery (ASR)*:

- Environmental Protection Agency, November 2009, Washington, D.C.
- Aquifer Storage and Recovery Forum VI – American Ground Water Trust, October 2006, Orlando, Florida
- Aquifer Storage and Recovery Forum IV – American Ground Water Trust, April 2004, Tampa, Florida
- Environmental Protection Agency Director’s Meeting, November 2003, San Destin, Florida
- American Institute of Professional Geologists Annual Meeting, October 2003, Lakeland, Florida
- Florida Association of Professional Geologists, January 2003, Tallahassee, Florida
- Environmental Protection Agency – Region 4 Underground Injection Control Meeting, November 2002, Atlanta, Georgia
- University of South Florida Geology Colloquium Series, April 2002, Tampa, Florida
- Florida Department of Health, Bureau of Water, June 2001, Tallahassee, Florida
- Division of Water Resources Management Annual Workshop, Florida Department of Environmental Protection, September 2000, St. Petersburg, Florida
- Ground Water Protection Council Annual Forum, September 2000, Ft. Walton Beach, Florida
- American Institute of Professional Geologists Annual Meeting, October 2000, Lakeland, Florida

Selected Presentations related to the *Florida Aquifer Vulnerability Assessment Project*:

- American Institute of Professional Geologists - Florida Section, July 2007, Pensacola, Florida
- Florida Association of Professional Geologists, September 2005, Pensacola, Florida
- University of Florida, Department of Geology Seminar, November 2005, Gainesville, Florida
- Florida Environmental Health Association Annual Meeting, August 2005, Jacksonville Beach, Florida
- American Water Works Association, January 2005, Palm Beach Gardens, Florida
- Florida Department of Environmental Protection, October 2004, Daytona Beach, Florida
- Florida Springs Task Force, January 2003, Ocala, Florida
- National Cave and Karst Management Symposium, November 2003, Gainesville, Florida
- Wekiva River Basin Workgroup, September 2003, Orlando, Florida

Animal Carcass Disposal: Application of Geologic Data, October 2006, Department of Agriculture and Consumer Services, Tallahassee, Florida

Professional Geology Careers in Florida, February 2006, Department of Geology and Geography, Florida Atlantic University, Boca Raton, Florida

Hydrogeology 101, October 2004, Governor’s Office of Planning and Budget, Tallahassee, Florida

Water quality issues in the Florida Aquifer System, November 2004, American Water Works Association, Orlando, Florida

Florida’s Aquifers: Vulnerable and Vital, December 2003, 1000 Friends of Florida forum on “Water Issues facing the Florida Panhandle,” Tallahassee, Florida

Education and Outreach Efforts Toward Better Management and Protection of Florida’s Springs, February 2003, Florida Springs Conference, Gainesville, Florida

Activities of the FGS Hydrogeology Program, July 2002, Florida Department of Environmental Protection, Groundwater Work Group, Orlando, Florida

Geology of Florida, Florida Park Service Interpretive Training Program, November 1999, West Palm Beach, Florida

Geology of Florida’s Phosphate Deposits, Florida Institute of Phosphate Research, September 1999, Lakeland, Florida

Subsurface mapping in Southwest Florida using ArcView GIS, March 1999, Department of Geological Sciences, Florida State University, Tallahassee, Florida

Introduction to ArcView GIS (four-part workshop), January-February 1998, Tallahassee, Florida

INVITED PRESENTATIONS (selected; continued)

Selected Presentations related to “*Florida’s Geology Unearthed*” educational video project:

- April 2000, League of Environmental Educators in Florida
- October 1998, Florida Association of Science Teachers
- June 1997, Office of the Governor, Environmental Affairs,
- May 7 1997, Florida Association of Science Supervisors,
- March 1997, State Committee on Environmental Education,

The Invisible Menace: Groundwater Contamination by Toxic Pollution, September 1996, Department of Geology, Florida State University, Tallahassee, Florida

Geology of Florida, (co-speaker: Walt Schmidt, State Geologist), February 1995, Office of the Governor, Tallahassee, Florida

Internet - The World Through Your Desktop, January 1994, Florida Geological Survey, Tallahassee, Florida

Sand, Gravel and Heavy-mineral Resources Offshore of Northwest Florida, U.S. Minerals Management Service symposium, May 1991, Charlottesville, Virginia

Geology of the Florida Basement, (short course) Summer Teacher In-service Science Institute, Lakeland, Florida, July, 1990

Geology and Geomorphology of Florida’s Coastal Marshes, (co-speaker: F. Rupert), Gulf Coast Intertidal Marsh Conference, May 1990, Tallahassee, Florida

Geology Fundamentals, June 1989, National Camping School, Boy Scouts of America, DeFuniak Springs, Florida

X-ray fluorescence Theory and Sample Preparation Techniques, Department of Geology, Florida State University, September 1988, Tallahassee, Florida