# Andrew S. Reeve, Professor

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## Education:

- Syracuse University, Doctor of Philosophy in Earth Science Syracuse, NY (Aug. 1996) Wetland hydrology and geochemistry were investigated in the Hudson Bay Lowland to evaluate the importance of this peat basin in global carbon cycling and the importance of ground water on the hydrology and geochemistry of these wetlands.
- Northern Illinois University, Master of Science in Geology DeKalb, IL (Dec. 1990) The aqueous geochemistry and hydrogeology along the coast of the Yucatan were assessed to evaluate the formation of a dense carbonate layer and its impact on the freshwater lens and ground-water discharge to the ocean.
- University of Illinois, Bachelor of Science in Geology Champaign, IL (May 1986)

#### **Experience**:

Professor, University of Maine Sept. 2011 to Present.

- Associate Professor, University of Maine Sept. 2002 to Sept. 2011.
- Assistant Professor, University of Maine Sept. 1996 to Sept. 2002 Conducting research and teaching courses in the fields of hydrogeology and ground-water geochemistry. Research activities currently focus on the importance of ground-water flow in wetland systems and the hydrogeochemistry of bedrock aquifers.
- **Consultant, Stearns and Wheler** Sept. 1994 Evaluated the migration of a TCE release using the U.S.G.S. ground-water flow and solute transport model (MOC).
- Hydrogeologist, Argonne National Laboratory Sept. 1990 to Aug. 1991 Prepared work plans for hydrogeologic assessments. Performed statistical analysis evaluating sampling methodology. Assisted with ground-water sampling program.
- Hydrogeologist, ATEC Associates, Inc. Sept. 1988 to Aug. 1990 Responsible for ground-water monitoring programs at several RCRA facilities. Collected and interpreted pump test and slug test data. Prepared stiff, piper, and bi-variate plots to interpret geochemical trends in data sets. Performed and automated statistical analysis of ground-water monitoring data at RCRA facilities. Implemented ground-water quality assessment plans at permitted hazardous waste landfills and surface impoundments and implemented consent and final order at hazardous waste sites.
- **Technician, Illinois State Geologic Survey** Sept. 1985 to Aug. 1986 Prepared coal samples for chemical analysis, floatation tests, and shake-table tests. Assisted in floatation and shake-table tests. Assisted in pilot plant operations, sample collection, and sample processing.

### Synergistic Activities:

Serve on the Research Council for the Maine Agricultural and Forestry Experiment Station (2015-2018)

Associate Editor for Wetlands Journal (2006-2009)

Graduate Coordinator for the Dept. of Earth Sciences, University of Maine (1999-2005,2013-2016,2018-Present)

Develops and Teaches Hydrogeology(ERS 480/580), Applied Methods in Hydrogeology(ERS 588), Computer Scripting for Data Analysis(ERS 420), and Environmental Geology (ERS 102) at the University of Maine. Has previously taught courses in Geology for Engineers, Fresh-water Flows (hydrology), and seminars in Python Programming.

Member of the University of Maine Water Research Institute.

Member of the nature walk program, speakers bureau and research permitting working group for the Orono Bog Boardwalk.

### Field Experience Abroad:

- Six weeks (Jun-Jul 1987) in the Chelem and Chuberna, Mexico collecting water and sediment samples from the Mangrove Swamp and adjacent upland from Masters of Science Research. Assisted with the collection of shallow rock cores.
- One week in the Hudson Bay Lowlands in northern Ontario, Canada collecting water samples and performing field permeability testing of peat sediments. This work was performed as part of my PhD research.
- Three trips to Volcan, Panama: six weeks during Sep-Nov 2014, four weeks during Jun-Jul 2015, and three weeks during Jul-Aug 2017. Field work in Panama focused on collecting river hydrology data including measuring stream velocity and stage to establish rating curves, and processing seismic data collected by collaborators. During these trips I worked with a small business (OSOP, S.A: Observatorio Sismico del Occidente de Panama) and assisted with a Indiegogo campaign, checking seismic stations, and working with a student intern on processing data using Python.

### Grants:

- Loftin, Cynthia and A. Reeve, 9/01/2018-08/31/2021, Identification, characterization, and threat assessment of groundwater dependent ecosystems in the northeastern United States with an integrated GIS- and field survey-based approach. USFWS and USGS. \$194,852
- Reeve, Andrew, 10/01/2016-09/30/2021, Then role of groundwater in Maine's wetland systems. Maine Agricultural and Forestry Experiment Station Hatch Grant, \$20,000.
- Reeve, Andrew (Collaborative with Slater, Comas, and Varner), 09/01/2016-08/31/2019Collaborative Research: Towards a mechanistic prediction of methane ebullition fluxes from northern peatlands, National Science Foundation. \$52772
- Reeve, Andrew, 4/27/2017-3/01/2018, Hydrological and biological assessment of Great Pond Lagoon : potential impacts and benefits of reopening the lagoon on adjacent coral reef and seagrass ecosystems. Dept. of Interior. \$9439
- Reeve, Andrew 3/31/2015-2/28/2016, Water budget, groundwater exchange and hydrologic variability of central Maine's Vernal Pools, Dept. of Interior. \$17,434
- Reeve, Andrew (Collaborative with Slater, Comas and Schafer), 03/01/2011-2/28/2015, Collaborative Research: Investigating hydrology-driven models for methane cycling in northern peatlands, National Science Foundation, \$114736.

- Reeve, Andrew, 10/01/2011-09/30/2016, Using temperature and flow profiling to evaluate groundwater interaction with surface water in Maine. Maine Agricultural and Forestry Experiment Station Hatch Grant, \$20,000.
- Reeve, Andrew (Collaborative with Glaser and others), 10/01/2006-09/30/2011, Collaborative Research: An Interdisciplinary Investigation of Groundwater-Carbon Flux Coupling in Large Peat Basins and its Relation to Climate Change, National Science Foundation, \$259,188.
- Reeve, Andrew, Steve Norton, Karl Kreutz. 10/01/2006-09/31/2011, Characterizing groundwater flow and chemical transport in fractured bedrock at deicing-salt contaminated sites. Maine Agricultural and Forestry Experiment Station, \$40,000.
- Reeve, Andrew and Lee Slater, 2005-2008, Nutrient Loading to the Sieur de Monts spring, Acadia National Park. National Park Service, \$40130.
- Reeve, Andrew (collaborative with Lee Slater, and Paul Glaser), 2005-2008, Collaborative Research: Geophysical evaluation of carbon gases in peatlands. National Science Foundation, \$67,838
- Reeve, A (collaborative with Lee Slater). 2001-2003, Collaborative Research: Integrated geophysical and hydrogeologic study of a large Maine Peatland. National Science Foundation, \$133,805.
- Reeve, A. and M. Yates. 2001-2005, The Chemical and isotopic evolution of arsenic-tainted groundwater through a watershed in Northport, Maine. USEPA through cooperative agreement with the Maine Geological Survey. \$204,662.
- Reeve, A., S. Norton and K. Kreutz. 2001-2006, Determining the sources of salt pollution in Maine ground water using isotopic and elemental characterization. Maine Agricultural and Forestry Experiment Station. \$35,200.
- Reeve, Andrew and Stephen Norton, 1997-2002, Interaction of road salt with environmental systems in Maine, Maine Agricultural and Forest Experiment Station, \$20,000.
- Davis, Ronald and Andrew Reeve, 1997-2002. Understanding vegetation-chemistry-hydrology relationships in Maine peatlands. Maine Agricultural and Forest Experiment Station, \$22,500.
- Calhoun, Aram, Mary Ann McGarry, and Andrew Reeve, 1998-2000, Wetland Connections: K-16 partnership initiative, Maine Math and Science Alliance, \$30,000.
- Glaser, Paul H., Andrew Reeve, Donald I Siegel. 1996-2000. Hydrologic drivers for the carbon dynamics in large peatlands, National Science Foundation, \$300,000. (Reeve receives a \$88,149 subcontract under this grant).
- Reeve, Andrew. 1998-1999. Evaluation of contaminant fate and transport modeling at the Portsmouth Naval Shipyard, Kittery, Maine, Maine Department of Environmental Protection, \$20,942.

# Papers:

Keller, Jessica A., Kristin Wilson Grimes, A. S. Reeve, Renata Platenberg. 2017. Mangroves buffer marine protected area from impacts of Bovoni Landfill, St. Thomas, United States Virgin Islands. Wetlands Ecology and Management. 25:563-582.

- Glaser, P. H., D. I. Siegel, J. P. Chanton, A. S. Reeve, D. O. Rosenberry, J. E. Corbett, and Z. Levy. 2016. Climatic drivers for multidecadal shifts in solute transport and methane production zones within a large peat basin, Global Biogeochem. Cycles. 30:1578–1598.
- Terry, N., L. Slater, X. Comas, A.S. Reeve, K.V.R. Schäfer, and Z. Yu. 2016. Free phase gas processes in a northern peatland inferred from autonomous field-scale resistivity imaging, Water Resour. Res. 52:2996-3018.
- Yu,Z., L.D. Slater, K.V.R. Schäfer, A. S. Reeve, and R. K. Varner. 2014. Dynamics of methane ebullition from a peat monolith revealed from a dynamic flux chamber system. Journal of Geophysical Research: Biogeosciences 119:1789-1806.
- Bon, C.E., A. S. Reeve, L. Slater, and X. Comas. 2014. Using hydrologic measurements to investigate free phase gas ebullition in a Maine Peatland, USA. Hydrology and Earth System Sciences 18:953-965.
- Reeve, A.S., P. H. Glaser and D. O. Rosenberry. 2013. Seasonal changes in peatland surface elevation recorded at GPS stations in the Red Lake Peatlands, northern Minnesota, USA. Journal of Geophysical Research: Biogeosciences 118:1616–1626.
- Sawdey, J.R. and A.S. Reeve. 2012. Automated inverse computer modeling of borehole flow data in heterogeneous aquifers. Computers and Geosciences. 46:219-228.
- Comas, X., L. Slater, and A. S. Reeve. 2011. Atmospheric pressure drives changes in the vertical distribution of biogenic free-phase gas in a northern peatland. Journal of Geophysical Research-Biogeosciences, 116:G04014
- Morley, T.R., A.S. Reeve and A. Calhoun. 2011. The role of headwater wetlands in altering stream flow and chemistry in a Maine, USA catchment. Journal of the American Water Resources Association. 47:337-349,
- Comas, X., L. Slater, and A. Reeve, A.S., 2011. Pool patterning in a northern peatland: geophysical evidence for the role of postglacial landforms. Journal of Hydrology. 399:173-184.
- Comas X., L. Slater, A. Reeve. 2008. Seasonal geophysical monitoring of biogenic gases in a northern peatland: Implications for temporal and spatial variability in free phase gas production rates, Journal of Geophysical Research, 113:G01012.
- Reeve, A.S. and M. Gracz. 2008. Simulating the hydrogeologic setting of peatlands in the Kenai Peninsula Lowlands, Wetlands 28:92-106.
- Slater, L., X. Comas, A. Reeve, and H. Jol. 2007. Surveying Hydrology, Ecology, and Climate Effects of Northern Peatlands Eos Trans. AGU, 88:428.
- Comas, X., L. Slater, and A. Reeve, A., 2007. In situ monitoring of free-phase gas accumulation and release in peatlands using ground penetrating radar (GPR), Geophysical Research Letters, 34, L06402.
- Lipfert, G., W. C. Sidle, A. S. Reeve, R. A. Ayuso, and A. J. Boyce. 2007. High arsenic concentrations and enriched sulfur and oxygen isotopes in a fractured-bedrock groundwater system. Chemical Geology.242:385-399.
- Lipfert, G, A. Reeve, W. Sidle and R. Marvinney. 2006. Geochemical patterns of arsenicenriched ground water in fractured, crystalline bedrock, Northport, Maine, USA. Applied Geochemistry. 21:528-545.
- Reeve, A.S., R. Evensen, P.H. Glaser. D.I. Siegel and D. Rosenberry. 2006. Flow path oscillations in transient ground-water simulations of large peatland systems. Journal of Hydrology. 316:313-324.

- Comas, X., L. Slater, and A. Reeve. 2005. Spatial variability in peat soils is revealed by ground penetrating radar (GPR). Geophysical Research Letters, 32:L08401
- Comas, X., L. Slater, and A. Reeve. 2005. Geophysical and hydrological evaluation of two bog complexes in a northern peatland: Implications for the distribution of biogenic gases at the basin scale, Global Biogeochem. Cycles. 19:GB4023.
- Comas, X., L. Slater and A. Reeve. 2005. Stratigraphic controls on pool formation in a domed bog inferred from ground penetrating radar (GPR). Journal of Hydrology. 315:40-51
- Glaser, P.H., D.I Siegel, A.S. Reeve, J.A. Janssens, and D.R. Janecky. 2004. Tectonic drivers for vegetation patterning and landscape evolution in the Albany River region of the Hudson Bay Lowlands. Journal of Ecology. 92:1054-1071
- Glaser, P.H., B.C.S. Hansen, D.I. Siegel, A.S. Reeve, and P.J. Morin. 2004. Rates, pathways and drivers for peatland development in the Hudson Bay Lowlands, northern Ontario, Canada. 92:1036-1053
- Comas, X., L. Slater and A. Reeve. 2004. Geophysical evidence for peat basin morphology and stratigraphic controls on vegetation observed in a northern peatland. Journal of Hydrology 295:173-184.
- Glaser, P.H., J.P. Chanton, P. Morin, D.O. Rosenberry, D.I. Siegel, O. Ruud, L.I. Chaser, and A.S. Reeve. 2004 Surface deformation as indicators of deep ebullition in a large northern peatland. Global Biogeochemical Cycles. 18(GB1003) 1-15.
- Calhoun, A., M.A. McGarry and A.S. Reeve. 2003. Wetland Connections: Linking University Researchers and High School Teachers to Advance Science Education and Wetland Conservation. Journal of Geoscience Education. 51:387-397.
- Slater, L.D. and A.S. Reeve. 2002. Investigating peatland stratigraphy and hydrogeology using integrated electrical geophysics. Geophysics, 67:365-378.
- Reeve, Andrew, Jon Warzocha, Paul Glaser and Donald Siegel. 2001. Regional groundwater flow modeling of the Glacial Lake Agassiz Peatlands, Minnesota. Journal of Hydrology, 243:91-100.
- Reeve, Andrew, Donald Siegel, and Paul Glaser, 2001. Simulating dispersive mixing in large peatlands. Journal of Hydrology, 242:103-114.
- Reeve, Andrew, Donald Siegel, and Paul Glaser, 2000. Simulating vertical flow in large peatlands. Journal of Hydrology, 227:207-217.
- Reeve, Andrew, Donald Siegel, and Paul Glaser, 1996. Geochemical controls on peatland pore water from the Hudson Bay Lowlands: A multivariate statistical approach. Journal of Hydrology, 181:258-304.
- Siegel, D.I., A. S. Reeve, P.H. Glaser, and E.A. Romanowicz, 1995. Climate-driven flushing of pore water in peatlands. Nature, 374:531-533.
- Reeve, Andrew and Eugene Perry, 1994. Carbonate geochemistry and the concentrations of aqueous  $Mg^{2+}$ ,  $Sr^{2+}$  and  $Ca^{2+}$ : Western north coast of the Yucatan, Mexico. Chemical Geology, 112:105-117.
- Reeve, Andrew, and Eugene C. Perry Jr., 1990. The estimation of aquifer characteristics using tidal analysis and geochemical methods, Western north coast of the Yucatan, Mexico. International Symposium on Tropical Hydrogeology and Fourth Caribbean Island Water Resources Congress, San Juan, Puerto Rico, July, 1990. p. 327-337.

- Perry, Eugene, Andrew Reeve, Robert Sanborn, and Luis Marin, 1990. Comment and Reply on "Geologic and environmental aspects of surface cementation, north coast, Yucatan, Mexico. Geology, 17:803-804.
- Perry, Eugene, Jennifer Swift, Jose Gamboa, Andrew Reeve, Robert Sanborn, Luis Marin, and Miguel Villasuso, 1989. Geologic and environmental aspects of surface cementation, north coast, Yucatan, Mexico. Geology, 17:818-821.

### **Books:**

Baird, Andrew J., Lisa R. Belyea, Xavier Comas, A. S. Reeve, and Lee D. Slater [Eds.]. 2009. Carbon cycling in northern peatlands. Geophysical Monograph Series, Volume 184, 299 pp.

### **Book Chapters:**

- Reeve, A.S., Z.D. Tyczka\*, X. Comas\*, and L.D. Slater. 2009. The Influence of Permeable Mineral Lenses on Peatland Hydrology. In Carbon cycling in northern peatlands. Andrew J. Baird, Lisa R. Belyea, Xavier Comas, A. S. Reeve, and Lee D. Slater. (eds.)
- Glaser, P.H., D.I. Siegel, A.S. Reeve, and J.P. Chanton. (2006) The hydrology of large peat basins in North America, In Peatlands: Basin Evolution and Depository of Records on Global Environmental and Climatic Changes Martini, I.P., Matinez Cortizas, A., and Chesworth, W. (eds.) Elsevier, Amsterdam.
- Abstracts: Only listing abstracts with Reeve or Reeve's student<sup>\*</sup> as first author
- Reeve, Andrew S., Efren Gomez, and Ryan Gordon. 2019. GSA Annual Meeting, Creating plausible groundwater flow models for the Carraipia Basin, La Guajira Department (Colombia) to aid in water resource management. Phoenix, AZ, USA. GSA Abstracts with Programs.
- Reeve, Andrew S., Lee Slater, Xavier Comas, and Paul Glaser. 2019. Using wavelets to identify hydraulic head anomalies associated with methane ebullition events, GSA Northeastern Section Meeting, Portland, ME, USA. GSA
- Reeve, Andrew S., Xi Chen, Lee Slater, Xavier Comas, and Paul Glaser. 2018. Hydraulic head data in a central Maine peatland indicate methane ebullition events. GSA Annual Meeting, Indianapolis, IN, USA. GSA Abstracts with Programs.
- Reeve, Andrew S., Lee Slater, Xavier Comas, Niel Terry, and William Wright. 2017. Two decades of hydrogeophysical measurements in Caribou Bog (Maine, USA) investigating groundwater flow and free-phase (methane) gas. GSA Annual Meeting, Seattle, WA, USA. GSA Abstracts with Programs.
- Reeve, A.S., L.D. Slater, X. Comas and P.H Glaser. 2017. Time Series Analysis of Hydraulic Head Data in Caribou Bog, Maine (USA) to Evaluate Biogenic Gas Ebullition and Other Events. Society of Wetland Scientists 2017 Annual Meeting held in Puerto Rico, June 5-8, 2017, ID. 1310.

- Straka\*, K, A.S. Reeve and A. Calhoun. 2017. Characterizing hydrologic properties in Maine vernal pools with a focus on groundwater patterns. Society of Wetland Scientists 2017 Annual Meeting held in Puerto Rico, June 5-8, 2017 ID. 1561.
- Straka\*, Kelli M. and A.S.Reeve. 2016. Quantifying groundwater exchange and variability of hydrologic fluxes in New England vernal pools. Maine Sustainability and Water Conference. Augusta, ME. Won Best Graduate Student Poster Award
- Cicha<sup>\*</sup>, J., A. Reeve, D. Lemery. 2015. Using Streambed Temperature Time Series and Pumping Tests to Characterize Groundwater and Stream Water Interaction in Northern Maine. 2015 Maine Water and Sustainability Conference. Augusta, ME.
- Reeve, A.S. 2015. Measuring biogenic gas ebullition events using hydraulic head time series data in Caribou Bog, Maine. GSA Annual Meeting, Baltimore, MD, USA. GSA Abstracts with Programs, Vol. 47, no. 7.
- Straka, Kelli M. and Reeve, Andrew S. 2015. Spatial and temporal assessment of hydrologic processes of New England vernal pools. GSA Annual Meeting, Baltimore, MD, USA. GSA Abstracts with Programs, Vol. 47, no. 7.
- Cicha<sup>\*</sup>, Jarrod. 2015. Temperature as a proxy to study the flow of water within two Maine streambeds. Master Of Science Thesis, University of Maine, Orono, ME.
- Cicha\*, Jarrod D, A.S. Reeve, and David Lemery. 2015. Using streambed temperature time series and pumping tests to characterize groundwater and stream water interaction in northern Maine. Abstracts from the 50th GSA Northeastern Section Meeting, Abstracts with Programs - Northeastern 2015. Vol. 47, no. 3.
- Reeve, A.S., Danielle Martin<sup>\*</sup>; Sean M. Smith. 2013. Measurement of Hydrologic Streamflow Metrics and Estimation of Streamflow with Lumped Parameter Models in a Managed Lake System, Sebago Lake, Maine. AGU Fall Meeting 2013.
- Reeve, A.S. and C. Westervelt<sup>\*</sup>. 2013. Peatland data analysis and simulation with Python. Scientific Computing with Python, Austin, Texas. June 24-29
- Bon, C.E.\*, Lee Slater, Xavier Comas, Karina Schafer and Zhongjie Yu (2013) Investigating flow patterns and mechanisms for free phase gas variability in a Maine peatland. Abstracts from the 48th GSA Northeastern Section Meeting, Abstracts with Programs - Northeastern 2013. Vol. 45, no. 2
- Westervelt, Claire D.\*, Andrew S. Reeve and Paul H. Glaser (2013) Cell-based simulation of peat accumulation in northern peatlands. Abstracts from the 48th GSA Northeastern Section Meeting, Abstracts with Programs Northeastern 2013. Vol. 45, no. 2
- Martin, Danielle M.\*, A. S. Reeve and Sean M. Smith (2013) Calibrating a lumped parameter drainage basin model to estimate stream discharge to Sebago Lake. Abstracts from the 48th GSA Northeastern Section Meeting, Abstracts with Programs - Northeastern 2013. Vol. 45, no. 2
- Reeve, A.S. Paul H. Glaser and Donald Rosenberry (2013) Coupling peatland surface movement to biogenic gas accumulation and hydrology using simple 1-d dynamic computer models. Abstracts from the 48th GSA Northeastern Section Meeting, Abstracts with Programs - Northeastern 2013. Vol. 45, no. 2
- Reeve, A.S. Paul H. Glaser and Donald Rosenberry (2012) Simulating peatland surface movement measured using gps in northern Minnesota, Abstracts from the 2012 GSA Annual Meeting in Charlotte, North Carolina, USA. GSA Abstracts with Programs, Vol. 44, no. 7

- Westervelt, Claire D.\*, Andrew S. Reeve and Paul H. Glaser (2012) Cell-based simulation of peat accumulation in northern peatlands. Abstracts from the 2012 GSA Annual Meeting in Charlotte, North Carolina, USA. GSA Abstracts with Programs, Vol. 44, no. 7
- Bon, C.E., Lee Slater, Xavier Comas, Karina Schafer and Zhongjie Yu (2012) Investigating flow patterns and mechanisms for free phase gas variability in a Maine peatland. Abstracts from the 2012 GSA Annual Meeting in Charlotte, North Carolina, USA. GSA Abstracts with Programs, Vol. 44, no. 7
- Perkins, R.\* and A.S. Reeve. 2012. Modeling Contaminant Transport and Preferential Flow Paths in a Homogeneous Porous Medium. 2012 Maine Water Conference. May 14, 2012. Augusta, Maine. Won first place in Undergraduate Poster category.
- Rhoades, Joshua L., and A. REEVE. 2011. Characterizing the distribution of hydraulic properties in the Glacial Lake Agassiz Peatlands using a three-dimensional numerical model. Abstract 232-11 presented at the 2011 GSA Annual Meeting in Minneapolis.
- Reeve, A.S. and J. Sawdey<sup>\*</sup>. 2010. Assessing borehole geophysical data with python through simulation of borehole flow in fractured bedrock aquifers, Scientific Computing with Python, Austin, Texas. June 28-July 32.
- Reeve, A.S. and J. Sawdey<sup>\*</sup>. 2010. Using borehole geophysics to model water flow and salt transport in a fractured heterogeneous aquifer near Jonesboro, Maine. Maine Water Conference. Augusta, ME.
- Reeve, A.S., Z. Tyzcka\*, X. Comas and L.D. Slater. 2009. The Influence of Permeable Mineral Lenses on Peatland Pore-Water Flow Patterns. EOS Transactions 90(52), B41A-0291.
- Allen, L.\*, A.S. Reeve, P.H. Glaser. 2009. Peatland Surface Monitoring and Analysis using Global Positioning Systems, EOS Transactions 90(52), H51F-0827
- Reeve, A.S. 2009. FiPy for hydrologists? A flexible tool for computer modeling of hydrologic processes. Geological Society of America Abstracts with Programs, Vol. 41, No. 3, p. 104
- Rhoades, J.\*, and A.S. Reeve, 2009. Measuring hydraulic properties of peat through inversion of pumping test data. EOS Transactions 90(22), H23E-01.
- Reeve, A., Z. Tyczka<sup>\*</sup> and X. Comas. 2008. Utilizing computer simulations to evaluate ground-water flow patterns within a peatland system Geological Society of America Abstracts with Programs, Vol. 40.
- Rhoades, J.\* and A.S. Reeve. 2008. Hydraulic tomography using detailed pumping test data from the Glacial Lake Agassiz Peatlands, northern Minnesota. Geological Society of America Abstracts with Programs, Vol. 40.
- Reeve, A.S., N.A. Stevens<sup>\*</sup>, L.D. Slater. 2008. Laboratory experiments and computer simulation of tracer experiments in peat. Society of Wetland Scientists Annual Meeting. Washington D.C.
- Rhoades, J.\* and A.S. Reeve. 2008. Three-dimensional groundwater model simulating detailed pumping tests on peatlands in Minnesota and Maine. Society of Wetland Scientists Annual Meeting. Washington D.C.
- Tyczka, Z.D.\*, A.S. Reeve, X. Comas. 2008. Temporal changes in hydraulic conductivity in a large Maine peatland and its impact on 3-D groundwater flow simulations Society of Wetland Scientists Annual Meeting. Washington D.C.

- A.Reeve, L. Slater and X. Comas. 2007.Hydrogeologic assessment of the eutrophication of the Sieur de Monts Spring, Acadia National Park. Geological Society of America Abstracts with Programs, vol. 39, no. 6, pp.37, Oct 2007
- Reeve, A. and M. Gracz. Using ground-water flow simulations for preliminary characterization of peatland hydrology in the Kenai Peninsula Lowlands, Alaska. Geological Society of America Abstracts with Programs, Vol. 38, No. 7, p. 262
- Comas, X, L. Slater, A. Reeve, J. Nolan and M. O'Brien. 2006. Evolution of biogenic gasses in peat soils using ground penetrating radar (GPR).Geological Society of America Abstracts with Programs, Vol. 38, No. 7, p. 262
- Reeve, A. and L. Slater. 2006. Evaluation of ground-water sampling and resistivity data to monitor a saline tracer test in a Maine peatland. EOS Transactions 87(36), NS24A-03.
- Glaser, P., P. Morin, D. Siegel, D. Rosenberry, J.Chanton, and A Reeve. 2006. An overview of gas ebullition and bog breathing (Mooratmung) in Northern Peatlands. EOS Transactions 87(36), NS24A-02.
- Reeve, A.S. 2005. Simulating the use of production wells to capture spring water. Northeast Section of the Geological Society of America. Saratoga Springs, NY.
- Reeve, A.S. and L. Slater. 2004. Computer simulation of a saline tracer test in Caribou Bog, Maine. Geological Society of America Annual Meeting. Denver, Colorado.
- Reeve, A.S. and N.A. Stevens<sup>\*</sup>. 2004. Hydrogeologic properties in peat columns. Geological Society of America Annual Meeting. Denver, Colorado.
- Lipfert, Gail<sup>\*</sup>, Andrew Reeve, 2004, Fracture-related geochemical controls on As concentrations in ground water, Water-Rock Interactions, Saratoga Springs, New York.
- Lipfert, Gail<sup>\*</sup>, Andrew Reeve, 2004, Characterization of three water types in a fractured schist, high arsenic, watershed in Maine, 004 US EPA/ NGWA Fractured Rock Conference, (September 13-15, 2004) Portland, Maine.
- Rickert, E.\*, A. Reeve and F.L. Paillet. 2004. Hydrologic and geophysical investigation of bedrock observation wells at the University of Maine. 2004 U.S. EPA/NGWA Fractured Rock Conference: State of the Science and Measuring Success in Remediation. Portland, Maine.
- Reeve, A. S. 2003. Transient numerical simulation of flow paths and weather-driven flow reversals in the Glacial Lake Agassiz Peatland. Geological Society of America Annual Meeting. Seatle, Washington.
- Comas, X., L. Slater and A. Reeve. 2003. Stratigraphic and lithologic controls on pool formation in a northern peatland using ground penetrating radar. Geological Society of America Annual Meeting. Seatle, Washington.
- Morton, B.\* and A. Reeve. 2003. Temporal changes in ground-water hydrology and solute transport in Caribou Bog, Maine. Geological Society of America Annual Meeting. Seatle, Washington.
- Lipfert, G. and A. Reeve. 2003. Fracture surface chemistry in an arsenic-rich bedrock aquifer. Geological Society of America Annual Meeting. Seatle, Washington.
- Reeve, A. 2002. Arsenic geochemistry in bedrock aquifer, Northport. Maine Arsenic in New England: A multi-disciplinary scientific Conference. Manchester, New Hampshire.
- Reeve, A. and L. Slater. 2002. Hydrology and Mass Transport Processes in Caribou Bog, Maine. Society of Wetland Scientists 23rd Annual Meeting, Lake Placid, New York.

- Reeve, A., M. Horesh\*, B. Warner\* and M. Yates. 2001. Geochemical evaluation of sources for arsenic in ground water, Northport, Maine. Northeast Section of the Geological Society of America. Burlington, VT.
- Evensen, R.\*, A. Reeve, P.H. Glaser, and D.I. Siegel. 2001. Simulating groundwater reversals in the Red Lake Peatlands. Northeast Section of the Geological Society of America. Burlington, VT.
- Reeve, A S, D.I. Siegel, and P.H. Glaser. 2000. Dispersive Mixing in Large Peatlands. EOS Transactions 81(48) H21G-04
- Horesh, M Y and A.S. Reeve. 2000. Implications of Geochemical Relationships at an Arsenic Cluster, Northport Maine. EOS Transactions 81(48) H21G-04
- Evensen, R.\*, A.S. Reeve, P.H. Glaser, and D.I. Siegel. 2000. Simulating Groundwater Reversals in a Boreal Peatland. EOS Transactions 81(48) H21G-04
- Davis, R.B., A.S. Reeve, and D.S. Anderson. 2000. Seasonal Patterns in ground-water flow within a large Maine peatland. EOS Transactions 81(48) H21G-04
- Reeve, A.S., D.I. Siegel, and P.H. Glaser. 2000. Simulating the vertical movement of solutes in a peatland. Quebec 2000: Millennium Wetland Event. Quebec City, Canada.
- Davis, R.B., D.S. Anderson, A.S. Reeve, and A.M. Small. 2000. Biology-chemistryhydrology relationships in two Maine peatlands. Quebec 2000: Millennium Wetland Event. Quebec City, Canada.
- Reeve, A. and M. Horesh<sup>\*</sup>. 2000. Evaluating natural arsenic sources through trends in ground-water geochemistry, Bayside, Maine. 2000 Maine Water Conference. Augusta, Maine.
- Reeve, A.S., D.I. Siegel, and P.H. Glaser. 1999. Incorporating dispersive mixing in conceptual peatland hydrologic models. EOS Transaction 80(17) H41E-07.
- Warzocha, J.\*, A. Reeve, P. Glaser, and P. Morin. 1999. The role of regional groundwater in the Glacial Lake Agassiz Peatlands, northern Minnesota. EOS Transaction 80(17) H42B-06.
- Lipfert, Gail<sup>\*</sup>, Stewart Sandberg, Lee Slater, Andrew Reeve, Marc Loiselle, 1998, The temporal variation of a salt-water contaminant plume as evidenced through long-term resistivity monitoring, in 12th Annual Symposium on the Application of Geophysics to Environmental and Engineering Problems Proceedings.
- Reeve, A.S., D.I. Siegel, and P.H. Glaser. 1998. Utilizing computer simulations to evaluate conceptual models of peatland hydrology. Annual Meeting of the Geological Society of America. Toronto, Canada.
- Warzocha, J., A. Reeve, P. Glaser, and P. Morin. 1998. Construction of a regional groundwater flow model for the Glacial Lake Agassiz peatland using GIS as a data management tool. Annual Meeting of the Geological Society of America. Toronto, Canada.
- Kimball, K, A. Reeve, S. Norton, and S. Sandberg. 1998. Hydrogeochemical investigation of road deicing salt effects on groundwater in Winterport, Maine. Annual Meeting of the Geological Society of America. Toronto, Canada.
- Reeve, A, 1998. Evaluating heavy metal migration at waste disposal sites with computer simulation. Meeting of the Geologic Society of America, Northeast Section. Portland, ME.

- Reeve, A, D. Siegel, P. Glaser, P. Morin, and O. Ruud. 1997. Coupling a regional 3-D groundwater flow model for the Glacial Lake Agassiz peatlands to global positioning system data. EOS Transactions 78(46) H11B-10.
- Reeve, A. 1997. Computer modeling of groundwater contamination by salt application. 1997 Maine Water Conference. Augusta, Maine.

### **Unpublished Reports:**

Reeve, Andrew., 1997. Evaluation of heavy metal migration at the Portsmouth Naval Shipyard with geochemical modeling. Submitted to Maine Department of Environmental Protection.

### Miscellaneous:

- Chair of theme session: Wetland Hydrology, Society of Wetland Scientists 2019 Geologic Society of America, Northeast Section. Portland ME.
- Teacher for Short course: Python Scripting for Earth Science Data Analysis, 2013 Geologic Society of America, Northeast Section. Bretton Woods, NH.
- Chair of theme session: Wetland Hydrology, Society of Wetland Scientists 2008 Annual meeting.
- Co-Chair of theme session: Peatland Patterns and Hydrological Processes: From the Subarctic to the Subtropics. 2006 Annual Meeting, Geological Society of America. Philadelphia, PA.
- Co-Chair of theme session: Characterizing Wetlands Systems Using Hydrogeophysical Techniques. 2006 AGU Joint Assembly. Baltimore, MD.
- Co-Chair of theme session: Hydrogeology II: Chemical Hydrogeology. 2002 Annual Meeting, Geological Society of America. Denver, CO
- Co-Chair of theme session: The hydrogeologic controls on ecosystems, 1998 Annual Meeting, Geological Society of America. Toronto, Canada.
- Co-Teacher of short course: Wetland hydrology and ecology, 1998 Geologic Society of America, Northeast Section. Portland, ME.