

**CURRICULUM VITAE
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EMPLOYMENT EXPERIENCE

BSC Group, Inc., Worcester, MA

Senior Ecological Scientist/Associate, 2003 – present

As senior ecological scientist and project manager at BSC Group, provide innovative solutions to clients based on a broad range of experience, and manage junior staff. Have managed and participated in hundreds of natural resource projects. Consulting work encompasses ecosystem-based climate change resiliency and mitigation assessment and planning, state and federal permitting, wetland delineation, impact analysis, wetland restoration/mitigation planning, design and monitoring, expert witness testimony, peer review, and environmental construction/post-construction inspection. Climate-related work includes teaching land trusts to incorporate ecological climate resiliency and carbon protection into land conservation planning, including how to communicate about climate change; conducting ecological restoration and climate resiliency assessment and planning; developing an innovative technique for protecting soil carbon functions and climate resiliency during wetland restoration and creation projects; and conducting climate vulnerability assessment.

A current focus is the relationship between wetlands and climate change. Have spoken and published on this issue (see below), and from 2013-2015 chaired the Local Program Committee for the international Society of Wetland Scientist's 2015 Annual Meeting, *Changing Climate. Changing Wetlands*. Served as Chair of the Inland Wetlands Adaptation Subcommittee to the Natural Resources and Habitat Subcommittee to the Massachusetts Executive Office of Energy & Environmental Affairs Climate Change Adaptation Advisory Committee. In this capacity, worked with other natural resource professionals to craft an advisory document that identified the specific vulnerabilities of inland wetland resources to anticipated changes in Massachusetts climate, and adaptive strategies for managing wetland resources as these changes occur. The findings in this document were incorporated into the Massachusetts Climate Change Adaptation Report (September, 2011) that is intended to guide climate adaptation policy in the Commonwealth of Massachusetts.

Society of Wetland Scientists – International

Executive Board (Immediate Past President, President, President Elect), June 2015 - June 2018

While serving as 2016-2017 President of the SWS, led a 3,000+ member international (58 countries) scientific Society, directing and developing scientific and policy initiatives, committees, representatives and staff to implement the Strategic Plan in accordance with the Society Mission and Vision. Represented the SWS at the 10th INTECOL International Wetlands Conference in Changshu, China, met with the Secretary General of the Ramsar Convention on Wetlands at the SWS Europe Chapter Annual Meeting in Faro, Portugal to further collaborations between the organizations including on climate change and wetlands, established a Memorandum of Cooperation with the Society for Ecological Restoration, convened expert wetland and climate scientists to write and speak on wetlands and climate change (see Publications list), and brought together a group of scientific societies to support the Waters of the United States 2015 Clean Water Rule in early 2017.

As Immediate Past President of Society of Wetland Scientists, served as Society's Representative to Consortium of Aquatic Science Societies and Chaired Waters of the United States *Ad Hoc* Committee. In this capacity, coordinated (with 11 other scientific societies) and co-authored comment letters on US Agency proposed Rules to repeal and replace 2015 Clean Water Rule and related legislative actions. Chaired Governance Structure *Ad Hoc* Committee, Nominations Committee and Bylaws Committee. As President Elect, assisted President and served on a variety of committees.

Massachusetts Department of Environmental Protection, Wilmington, MA

Wetlands & Waterways Circuit Rider, October 1999 - 2003

As first Circuit Rider in MassDEP Northeast Region, collaborated on developing innovative educational outreach program for close to 100 municipalities, wetlands professionals and general public on wetlands policy, regulations and science. Planned, organized, and taught workshops, provided training and technical assistance, established and maintained watershed-based Conservation Commission networks that met monthly for training and networking. As registered soil scientist, provided MassDEP staff with soils expertise. Reviewed and contributed to MassDEP wetlands policy and training documents.

Redwing Environmental Consulting, Stow, MA

Principal, October 1996 - October 1999

As sole proprietor, responsible for all aspects of business providing wetlands-related environmental consulting services. Activities included performance of State and Federal wetlands permitting work and monitoring of wetland mitigation site construction activities.

Boston University Metropolitan College, Department of Urban Affairs and Planning, Boston, MA

Lecturer, spring semesters 1997 & 1999

Developed curriculum for and taught graduate level course surveying current global environmental issues associated with population growth and resource consumption, including climate change, sustainable development, biodiversity, wetlands, water, food, energy, and public health and pesticide use. Organized several guest speakers.

Epsilon Associates, Inc., Maynard, MA

Environmental Scientist, Spring 1997 - Summer 1998

As sub-consultant, provided wetlands and natural resource services, including fieldwork and preparation of reports, natural resource regulatory analyses, and regulatory permit documents. Reviewed wetlands-related fieldwork and document preparation by junior staff and assisted in their professional education and development.

Jason M. Cortell and Associates Inc., Waltham, MA

Ecologist, August 1991 – October 1996

Prepared natural resource state and federal permit applications, conducted field work.

Massachusetts Public Interest Research Group, Boston, MA

Citizen Organizer, 1987 - 1988

Organized lobbying campaigns in support of environmental legislation.

The Consortium, Phanat Nikom Refugee Camp, Thailand

Teacher, 1985 - 1986

Taught English to refugees (Hmong, Mien, Lao, Khmer) with little or no formal educational background, in preparation for their resettlement in English-speaking countries.

GOVERNMENT SERVICE

MA Department of Transportation Wetland Mitigation Banking Working Group (2018)

MA Executive Office of Energy and Environmental Affairs Natural Resources and Habitat Subcommittee to the Climate Change Adaptation Advisory Committee, Chair, Inland Wetlands Adaptation Subcommittee (2009). Led group to prepare wetlands text for incorporation into MA Climate Change Adaptation Report (September 2011)

MA DEP Wetlands & Waterways Circuit Rider (1999-2003)

Massachusetts DEP, Trainer, Wetland Delineation Training (1995-1996)

Town of Stow Conservation Commission (1992-1994)

EDUCATION

Yale School of Forestry and Environmental Studies, New Haven, CT
1991 *Master of Environmental Studies*, Concentration in ecosystem ecology

Williams College, Williamstown, MA
1985 *Bachelor of Arts, Cum Laude, Dean's List*, Psychology major

University of Massachusetts, Amherst, MA
1995 *Certificate of Completion* in the New England Regional Soil Science Certificate Program

PROFESSIONAL REGISTRATIONS

Professional Wetland Scientist (#2181), Society of Wetland Scientists
Registered Soil Scientist, Society of Soil Scientists of Southern New England
Certified Wetland Scientist (#00071), State of New Hampshire
Certified Erosion, Sediment, and Storm Water Inspector (#3229), Envirocert International, Inc.

PROFESSIONAL AFFILIATIONS

Society of Wetland Scientists (international): See above
Society of Wetland Scientists, New England Chapter
Executive Board (Past President, President, Vice President), March 2013 - June 2018
Association of Massachusetts Wetland Scientists
Past President, President, Vice-President, 2000 - 2005
Society of Soil Scientists of Southern New England: Member
Society for Ecological Restoration: Member
Association of State Wetland Managers: Member

PUBLICATIONS

Davies GT, Kaplan MG, Spokas M, Toohill M (in review) *Enhancing Wetland Climate Change Resiliency and Carbon Mitigation on Rights-of-Way Projects*. In: Proceedings from Environmental Concerns in Rights-of-Way Management 12th International Symposium

Davies GT, Kenny J (2016) *Using and Interpreting IRIS Tubes to Assess Wetland Mitigation Success and Development of Hydric Soils in Created Wetlands: Massachusetts Department of Transportation Case Study in Lincoln, MA*. Poster presentation at National Academies of Sciences, Engineering & Medicine Transportation Research Board 95th Annual Meeting, Washington, D.C.

Finlayson CM, Moomaw WR, Davies GT (2017) *The Second Warning to Humanity and Wetlands*. *Wetland Science & Practice* December 2017: 118-121

Finlayson CM, Davies GT, Moomaw WM, Chmura GL, Natali SM, Perry JE, Roulet N, Sutton-Grier AE (2018) *The Second Warning to Humanity – Providing a Context for Wetland Management and Policy*. *Wetlands* doi: 10.1007/s13157-018-1064-z

MACC Buffer Zone Guidebook Working Group (in review) *MACC Buffer Zone Guidebook* (working title). Massachusetts Association of Conservation Commissions. Belmont, MA. Serving as BSC Group Project Manager and lead author assisting MACC in writing a primary source document on science and regulation of wetland buffer zones and riparian areas.

Moomaw WR, Chmura GL, Davies GT, Finlayson CM, Middleton BA, Natali SM, Perry JE, Roulet N, Sutton-Grier AE (2018) *Wetlands In a Changing Climate: Science, Policy and Management*. *Wetlands* 38(2): 183-205. doi: 10.1007/s13157-018-1023-8

Moomaw WR, Davies GT, Finlayson CM (2018) *What the World Needs Now to Fight Climate Change: More Swamps*. *The Conversation* <https://theconversation.com/what-the-world-needs-now-to-fight-climate-change-more-swamps-99198>. Accessed September 13, 2018

Ponzio KJ, Osborne TZ, Davies GT, LePage B, Sundareshwar PV (in review) *Building Resiliency to Climate Change through Wetland Management and Restoration*. In: J.T.A. Verhoeven and S. An (eds.) *Wetlands: Functions, Restoration and Wise Use* (Proceedings from 10th INTECOL International Wetlands Conference). Springer, Dordrecht

Contributing author to:

Massachusetts Department of Environmental Protection (2004) *Wetlands Enforcement Manual*

Massachusetts Department of Environmental Protection (2002) *Massachusetts Inland Wetland Replication Guidelines*

PRESENTATIONS

12th International Symposium on Environmental Concerns in Rights-of-Way Management, Denver, Colorado, co-presenter, “Managing Rights-of-Way Wetland Restoration and Creation to Enhance Climate Resiliency and Carbon Mitigation in a Changing Climate” 2018

Society of Wetland Scientists Annual Meeting, Denver, Colorado, presenter, “What’s a Practicing Wetland Scientist to Do? Policy & Management Tools, Strategies and BMPs in Light of Climate Change” 2018

Society of Wetland Scientists Annual Meeting, Denver, Colorado, co-presenter, “The Changing US Legal and Policy Framework for Wetland Conservation” 2018

Massachusetts Association of Conservation Commissions, Co-presenter, “Tools, Approaches and Science for Incorporating Climate Change in Your Commission’s Work”, 2018

Wisconsin Wetlands Association, Lake Geneva, WI, Plenary Speaker, “Resiliency for Wetlands and Communities: Notes from the Field”, 2018

Society of Wetland Scientists Annual Meeting, San Juan, Puerto Rico, presenter, “Protecting Soil and Vegetative Structure to Enhance Function in Restored and Created Wetlands” 2017

Massachusetts Division of Conservation and Recreation Timber Harvester Workshop, Athol, MA, “Wetlands and Climate Change: A Summary of Current Wetland Scientific Findings”. 2017

New England Chapter of The Wildlife Society, Hadley, MA, Presenter, “Current Science on Wetlands and Climate Change: Impacts, Carbon Mitigation and Adaptation. 2016

Association of State Wetland Managers Hot Topics Webinar Series, Presenter, “Wetlands and Climate Change: A Summary of Current Wetland Scientific Findings”. 2016

10th INTECOL International Wetlands Conference, Changshu, China, Presenter, “The Heightened Value of Wetland Ecosystem Services Under Global Climate Change: Implications for Wetland Management” 2016

International Wetland Convention, Taipei, Taiwan, Presenter, “Protecting and Regulating Wetlands in Massachusetts, USA – A First-in-the-Nation Case Study” 2016

Society of Wetland Scientists Annual Meeting, Corpus Christi, Texas, Presenter, “Interpreting Indicator of Reduction in Soil (IRIS) Tubes to Assess Functional Success in Created Wetlands: A MassDOT Case Study in Lincoln, MA, 2016

Society of Wetland Scientists, Rocky Mountain Chapter Annual Meeting, Golden, Colorado, Presenter, “Current Science on Wetlands and Climate Change Impacts, Carbon Mitigation and Adaptation”, 2016

Connecticut Land Conservation Conference, Middletown, CT, Presenter, “Land Conservation as a Strategy for Community Resilience”, 2016

National Academies of Sciences, Engineering & Medicine Transportation Research Board 95th Annual Meeting, Washington, D.C., Poster Presentation, “Using and Interpreting IRIS Tubes to Assess Wetland Mitigation Success and Development of Hydric Soils in Created Wetlands: Massachusetts Department of Transportation Case Study in Lincoln, MA, 2016

Chigu Center International Forum on Coastal Wetlands, Tainan County, Taiwan, Presenter, “Wetlands and Climate Change – Wetlands, Climate Change and the Carbon Cycle”, 2015

National Taiwan Normal University, Taipei, Taiwan, Presenter, “Wetlands and Climate Change – Wetlands, Climate Change and the Carbon Cycle”, 2015

Massachusetts Association of Conservation Commissions, Presenter,
“Current Science on Wetlands and Climate Change: Impacts, Carbon Mitigation, and Adaptation”, 2015

Boston Bar Association, Co-presenter, “Advising Municipalities and Developers on Climate Change and Adaptation”, 2015

Massachusetts Association of Conservation Commissions, Co-presenter, “Wetlands and Climate Change: Their Functions, Roles, and Protecting Your Community’s Resiliency”, 2014

Massachusetts Association of Conservation Commissions, Co-presenter, “Hydric Soils: How To Know ‘Em When You See ‘Em”, 2014

Association of Massachusetts Wetland Scientists, Co-presenter, “U.S. Field Indicators of Hydric Soils in Massachusetts”, 2012

Association of Massachusetts Wetland Scientists, Co-presenter, “Difficult Inland Wetland Delineations”, 2006 and 2007

Massachusetts Association of Conservation Commissions, Co-presenter,
“Soil Science- Field Skills Workshop”, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013

Massachusetts Association of Conservation Commissions, Co-presenter,
“Hydric Soil Workshop: Field Identification, Documentation, and Delineation”, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013

Association of Massachusetts Wetland Scientists, Co-presenter, “Hydric Soils as Influenced by Landscapes, Landforms and Associated Wetland Patterns”, 2005

Salem Sound Coastwatch Speakers Series, Presenter, “Ambiguity in Dealing with the Wetlands Protection Act” 2004

Association of Massachusetts Wetland Scientists, Co-presenter, “Field Indicators for Hydric Soils in New England (Version 3)”, 2004

University of Massachusetts, Lowell, guest-lectured a one-evening graduate level class on soils for “Wetland Ecology” course, 2001, 2003

Massachusetts Association of Conservation Commissions, Co-presenter, Hydric Soils (Advanced Credit Course), 2001, 2002, 2003, 2004, 2005, 2006, 2007

Massachusetts Department of Environmental Protection (while Circuit Rider)
Co-Editor for revision and development of training modules for the Clearwater Estates Development Simulation Reference Manual and Training Program

Presenter, Advanced Soils Workshop for DEP Northeast Region wetlands staff, 2000

Presenter, Hydric Soils Workshops, 1999, 2000

Co-presenter, Riverfront Protection Act Workshops, 2000, 2003

Co-presenter, Wetlands Protection Act Orders of Conditions Workshops, 2001

Co-presenter, Wetlands Protection Act Enforcement Workshops, 2001, 2002

Co-presenter, Winter Botany Workshops, 2002

Association of Massachusetts Wetland Scientists, Co-presenter, “Delineation of Disturbed Soils” 2002

MassDEP Co-Presenter/Soils Instructor, Bordering Vegetated Wetlands Delineation Workshops, 1995,
1996