

**Mark H. Stolt**

Professor of Pedology and Soil Environmental Science  
Department of Natural Resources Science  
University of Rhode Island, Kingston, RI 02881  
email: mstolt@uri.edu

**Education**

*Ph.D.*, 1990, Soil Environmental Science, Virginia Polytechnic Institute and State University.  
*M.S.*, 1986, Soil Science, University of Maryland.  
*B.S.*, 1982, Agronomy, University of Maryland.

**Professional Experience**

*Professor (2008-present), Associate Professor (2002-2008); Assistant Professor (1997-2002).* Dept. Nat. Res. Sci., Univ. Rhode Island, Kingston, RI.

Appointment: 50% teaching - 50% research. Courses: Soil Morphology and Mapping, Soils and Land Use, Soil Genesis and Classification. Research: Subaqueous soils; Coastal and riparian wetlands; Carbon accounting; Coastal ecosystem restoration.

*Assistant Professor (1996-1997).* Dept. of Agronomy and Soils, Auburn Univ., Auburn, AL.

Appointment: 50% teaching - 50% research. Courses: Soil Morphology and Genesis; Soil Mineralogy. Research: Hydraulic properties, redoximorphic features, and aquic soils; GIS and soil database management; Soil-landscape relationships.

*Adjunct Assistant Professor (1996).* Dept. of Biology, Auburn University, Montgomery, AL.

Taught a wetlands course to environmental science majors.

*Soil-Environmental Consultant (1989-1996).*

Inventoried soil and geologic resources; Delineated jurisdictional wetlands.

*Senior Research Associate (1992 -1995).* Dept. of Crop and Soil Environmental Sciences, Virginia Polytechnic Institute and State University, Blacksburg, VA. Applied soil- environmental science research in: Mined-land reclamation; Wetland restoration; Wetland delineation; Soil-hydrology spatial relationships.

*Soil Scientist (1990 -1992).* State of Virginia, Patrick County, Virginia. Mapped soils as part of the USDA-NRCS progressive soil survey in Patrick County, Virginia.

[https://www.nrcs.usda.gov/Internet/FSE\\_MANUSCRIPTS/virginia/patrickVA2009/PatrickVA.pdf](https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/virginia/patrickVA2009/PatrickVA.pdf)

**Recent Awards**

- Northeast Regional National Cooperative Soil Survey Silver Spade Award (2012)
- National Cooperative Soil Survey Soil Scientist Achievement Award (2013)
- William J. Patrick Lectureship Award, Soil Science Society of America (2016)

**15 publications most closely related to the proposed project:***Soil Organic Carbon Accounting:*

Millar, C.M., A.A.O. Aduomih, M.H. Stolt, and B. Still. 2015. Estuarine Subaqueous Soil Organic Carbon Accounting: Sequestration and Storage. *Soil Science Society of America Journal* 79:390-397.

Ricker, M.C., M.H. Stolt, and M.S. Zavada. 2014. Comparison of Soil Organic Carbon Dynamics in Forested Riparian Wetlands and Adjacent Uplands. *Soil Science Society of America Journal* 78:1817-1827.

Stolt, M.H, and J. Bakken. 2014. Inconsistencies in terminology and definitions of organic soil materials. *Soil Science Society of America Journal* 78:1332-1337.

- Ricker, M.C., M.H. Stolt, S.W. Donohue, Blazejewski, G.A., and M.S. Zavada. 2013. Soil organic carbon pools in riparian landscapes of southern New England. *Soil Science Society of America Journal* 77:1070-1079
- Richardson, M., and M.H. Stolt. 2013. Measuring soil organic carbon sequestration in aggrading temperate forests. *Soil Science Society of America Journal* 77:2164-2172.
- Stolt, M.H., P.J. Drohan, and M. Richardson. 2010. Insights and approaches for mapping soil organic carbon as a dynamic soil property. *Soil Sci. Soc. Am. J.* 74:1685-1689.
- Davis, A., J.E. Compton, and M.H. Stolt. 2010. Soil respiration and ecosystem carbon stocks in New England forests with varying soil drainage. *Northeastern Naturalist* 17:437-454.
- Davis, A.A., M.H. Stolt, and J.E. Compton. 2004. Spatial Distribution of Soil Carbon in Southern New England Hardwood Forests. *Soil Sci. Soc. Am. J.* 68:895-903.
- Blazejewski, G.A., M.H. Stolt, N. Gurwick, A.J. Gold, and P.M. Groffman. 2009. Spatial Distribution of Carbon in the Subsurface of Riparian Zones. *Soil Science Society of America Journal* 73:1733-1740.

#### Soil Survey:

- Stolt, M., J. Turenne, and M. Payne. 2017. Subaqueous soil survey. p. 505-524 *In* C. Ditzler, K. Scheffe, and H.C. Monger (eds.) *Soil survey manual*, USDA Handbook 18, Government Printing Office, Washington, D.C.
- McVey, S., P.J. Schoeneberger, J. Turenne, M. Payne, D.A. Wysocki, and M.H. Stolt. 2012. Subaqueous soils (SAS) description. p. 2-97 to 2-119 *in* Schoeneberger, P.J., D.A. Wysocki, E.C. Benham, and Soil Survey Staff. 2012. *Field book for describing and sampling soils*, Version 3.0. Natural Resources Conservation Service, National Soil Survey Center, Lincoln, Nebraska, USA.

#### Tidal Marshes:

- Wigand, C., C.T. Roman, E.W. Davey, M.H. Stolt, R.L. Johnson, A. Hanson, E. Burke Watson, S.B. Moran, D.R. Cahoon, J.C. Lynch, and P. Rafferty. 2014. Below the disappearing marshes of an urban estuary: Historic nitrogen trends and soil structure. *Ecological Applications* 24:633-649.
- Addy, K., A. Gold, M. Stolt, S. Donohue. 2013. Groundwater denitrification capacity and nitrous oxide flux of former fringing salt marshes filled with human-transported materials. *Urban Ecosystems* 16:295-311.
- Twohig, T.M., and M.H. Stolt. 2011. Soils-based rapid assessment for quantifying changes in salt marsh condition as a result of hydrologic alteration. *Wetlands* 31:955-963.
- Stolt, M.H., and M.C. Rabenhorst. 1991. Micromorphological investigation of argillic horizons in an upland/tidal marsh catena. *Soil Sci. Soc. Am. J.* 55:443-450.

### **Synergistic Activities**

- Chairman of the Pedology Division of the Soil Science Society of America (2019).
- Organized and hosted the National Cooperative Soil Survey Meeting (2019).
- Organized and hosted the International Committee of Wet Soils in Soil Taxonomy (2019)
- Chairman NE-1938 Multistate Research Project: Carbon Dynamics and Hydromorphology in Depressional Wetland Systems, State Agricultural Experiment Station (SAES) and the National Institute for Food and Agriculture (NIFA) (2019-2024).
- President: *Society of Soil Scientists of Southern New England*, 2006 to present
- Chairman: *New England Hydric Soils Technical Committee*, 2006-present.
- Co-chairman: *National Cooperative Soil Survey Committee on Hydric/Subaqueous Soils* (2015-2017)
- Chairman: Fundamental Changes to Soil Taxonomy Task Force; SSSA (2014-present)