

**Roxanne L Johnson, Chemist, in EPA's National
Health and Environmental Effects Research Laboratory**

Atlantic Ecology Division
Mailing Address

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Area of Expertise: Currently my active area of experience is developing and applying quantitative methods to determine nutrients, organic and inorganic carbon and total suspended solids in estuarine seawater systems. In the past, I have developed and applied experimental designs and statistical analyses, using Primer and SAS, to the study of benthic communities as indicators of estuarine health in several New England estuarine systems.

Select Publications ([Several links exit this site](#)):

- Hanson, A., R. L. Johnson, C. Wigand, A. Oczkowski, E. W. Davey, and E. Markham. 2016. [Responses of *Spartina alterniflora* to Multiple Stressors: Changing Precipitation Patterns, Accelerated Sea Level Rise, and Nutrient Enrichment.](#) *Estuaries and Coasts*. **39**(5):1376-1385.
- Wigand, C., E. Davey, R. L. Johnson, K. Sundberg, J. Morris, P. Kenny, E. Smith, and M. Holt. 2015. [Nutrient Effects on Belowground Organic Matter in a Minerogenic Salt Marsh, North Inlet, SC.](#) *Estuaries and Coasts*. **38**(6):1838-1853.
- Wigand, C., C. T. Roman, E. Davey, M. Stolt, R. L. Johnson, A. Hanson, E. B. 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.](#) CT image ON COVER. *Ecological Applications*. **24**(4):633-649.
- Ho, K. T., M. Pelletier, D. Campbell, R. Burgess, R. L. Johnson, and K. Rocha. 2012. [Diagnosis of Potential Stressors Adversely Affecting Benthic Communities in New Bedford Harbor, MA \(USA\).](#) *Integrated Environmental Assessment and Management*. **8**(4):685-702.
- Davey, E., C. Wigand, R. L. Johnson, K. Sundberg, J. Morris, and C. T. Roman. 2011. [Use of computed tomography imaging for quantifying coarse roots, rhizomes, peat, and particle densities in marsh soils.](#) *Ecological Applications*. **21**(6):2156-2171.
- Johnson, R. L., K. Perez, K. J. Rocha, E. W. Davey, and J. A. Cardin. 2008. [Detecting benthic community differences: Influence of statistical index and season.](#) *Ecological Indicators*. **8**:582-58

View more research publications by [Roxanne Johnson](#).

Education:

- M.S., University of Rhode Island, Kingston, RI; Statistics, 1997

- B.A., Connecticut College, New London, CT; Chemical Science, 1965

Professional Experience:

- Johnson, R. L., C. Wigand, A. Hanson, E. W. Davey, A. Oczkowski, E. Markham. [Preliminary Results from a Mesocosm Marsh Experiment with Treatments Simulating Three Tidal Flooding and Precipitation Conditions](#). Presented at Coastal and Estuarine Research Federation (CERF) 21st Biennial Conference. Societies, Estuaries and Coasts: Adapting to Change, Daytona Beach, FL, November 06-10, 2011
- Chemist, National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division, 1995-present
- Associate Chemist, Science Applications International Corporation, on contract to US Environmental Protection Agency Narragansett, RI, 1988-1995
- Marine Research Specialist, University of Rhode Island, on contract to US Environmental Protection Agency, 1982-1988
- Research Assistant, Biochemistry Department, University of Rhode Island, Kingston RI, 1978-1982