

David Jay Velinsky
Department of Biodiversity, Earth and Environmental Sciences
and Academy of Natural Sciences of Drexel University
Drexel University
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EDUCATION

- 1987 Old Dominion University (Norfolk, VA)
Ph.D. in Chemical Oceanography;
Dissertation Title: "The geochemistry of selenium and sulfur in a coastal salt marsh"
Thesis Advisor: Dr. Gregory A. Cutter
- 1977 Florida Institute of Technology (Melbourne, FL)
B.S. in Oceanography, minor in Chemistry;
Senior Thesis: "Determination of the redox potential and its relationship to the organic structure of sediment in the Indian River lagoon"

RESEARCH INTERESTS

Fate, transport, and cycling of bio-active elements and contaminants in freshwater and marine systems. Geochemical cycling of organic and inorganic constituents in sediments and waters. Biogeochemistry of fresh and marine tidal wetlands. Watershed changes in water quality. Isotope biogeochemistry of carbon, nitrogen, and sulfur. Chemical method development for environmental studies.

PROFESSIONAL EXPERIENCE

- 2012 – Present Department Head and Full Professor, Department of Biodiversity, Earth and Environmental Science, College of Arts and Sciences, Drexel University
- 2016 – Present Board Member, Lacawac Sanctuary Field Station and Environmental Education Center, Lake Ariel, PA; Member of Science Committee
- 2010 – Present Member, Franklin Institution Bower Medal Committee, Earth and Environmental Science Cluster
- 1995 - Present Senior Scientist, Environmental Biogeochemistry Section, Patrick Center for Environmental Research, The Academy of Natural Sciences, (Philadelphia, PA).
- 2012 - 2020 Vice President for the Center of Academy Science, Academy of Natural Sciences of Drexel University
- 2010 – 2014 Adjunct Associate Professor, College of Earth, Ocean and Environment, University of Delaware; Newark, DE.

- 2009 – 2014 Board of Trustees; Partnership for the Delaware Estuary (Wilmington, DE)
- 2007 – 2017 Director- Patrick Center for Environmental Research
The Academy of Natural Sciences (Philadelphia, PA)
- 2006 – 2012 Science and Technical Advisory Committee (STAC), Delaware Estuary Program,
Partnership for the Delaware Estuary (Wilmington, DE)
- 2006 – 2007 Acting Vice President/Director- Patrick Center for Environmental Research
The Academy of Natural Sciences (Philadelphia, PA)
- 2004 - 2006 Sea Grant Science Advisory Committee Member (New Jersey)
- 2002 - 2013 Delaware Estuary Program, Toxics Advisory Workgroup, Delaware River Basin
Commission (West Trenton, NJ)
- 1998 – 2004 Visiting Research Professor; School of Environmental Science; Drexel University.
- 1991 - 2002 Jug Bay Wetlands Sanctuary, Science Advisory Committee; Chairperson.

Chesapeake Bay Program (EPA); Toxics Subcommittee
- 1990 - 1995 Environmental Geochemist, Interstate Commission on the Potomac River Basin
(Rockville, MD).

Lecturer, U.S. Department of Agriculture Graduate School, Natural Sciences
Department (class: Estuarine Ecosystems).
- 1987 - 1990 Post-Doctoral Research Fellow, College of Marine Studies, University of
Delaware, and Geophysical Laboratory, Carnegie Institution of Washington.

Visiting Investigator, Geophysical Laboratory, Carnegie Institution of Washington.
- 1982 – 1984 Research Assistant, Atmospheric Sciences Division, NASA Langley Research Center.
- 1979 – 1980 Laboratory Technician, Arnold Greene Testing Laboratory (Natick, MA).

GRANTS, CONTRACTS and SUPPORT:

Upon request

UNIVERSITY AND ACADEMY SERVICE (See below for more detail)

Academy of Natural Sciences, President Search Committee; Winter 2017

Drexel University; Provost Search Committee; Fall 2014-Spring 2015

Drexel University; IExE Director Search Committee; Summer 2014-Winter 2104

Drexel University, Member, President's Strategic Task Force 4b: *Research*, 2012-present

Drexel University, Member, President's Strategic Task Force 4: *Create an Innovation Nexus*, 2012-2014

Drexel University, Member, President's Strategic Task Force 1B: *Invest in Academic Excellence - Student Academic Services*, 2012-2013

College, Member, Teaching Faculty Review Committee. 2013-2014. Review candidates for promotion and assisted in development of promotion guideline for College of Arts and Sciences.

University and Academy, Member, President's Integration Council. 2011-2014. Assisted in the integration of Academy and University along with the development of the BEES department.

Drexel University Institutional Advancement. 2013. Presented to entire Parent Donor Group about the development and formation of BEES department.

Drexel University Institutional Advancement. 2012. Presented to entire IA group about the development and formation of BEES department.

OTHER PROFESSIONAL ACTIVITIES

Various journal reviews for Marine Chemistry, Estuaries, Marine Environmental Research, Geochimica Cosmochimica Acta, Limnology and Oceanography, and others.

Various proposal reviews for National Science Foundation, NOAA Sea Grant, U.S. EPA, Chesapeake Bay Program, Hudson River Foundation.

Invited participant: PCBs in Fish Tissue (U.S. EPA); Sediment Contamination Forum (U.S. EPA); Sources of Copper: Brake Pad Forum (Common Ground for the Environment, Stanford Univ.); Sediment Bioaccumulation Forum (U.S. EPA).

Judge at Fairfax County Science Fair (1991-1993)

Session Chairperson (joint with Dr. Greg Foster, GMU): Environmental Geochemistry in Urban Watersheds, Society of Environmental Toxicology and Analytical Chemistry (San Francisco, CA, November, 1997).

Invited participant: Connecticut/New York Sea Grant Scientific Proposal Review Panel: Lobster/Shellfish Disease Studies of Long Island Sound (2003)

Sea Grant Panel Reviewer: NJ Sea Grant; Proposal Review Panel (2005)

Sea Grant Panel Reviewer: PA Sea Grant; Proposal Review Panel (2005)

Sea Grant Panel Reviewer: Delaware Sea Grant; Proposal Review Panel (2021)

Session Chairperson, S05 Delaware River/Bay at Society of Environmental Toxicology and Analytical Chemistry (Baltimore, MD, November 2005).

Academy of Natural Sciences' Town Square (Public Forum): Chemicals in the Delaware Estuary. American Philosophical Society (January 2005).

Science on Tap: The Slippery Facts on Oil; Public Forum at National Mechanics Bar (June 2010)

Ad Hoc Review Committee, Technical Qualification Board, US EPA Headquarters, Promotion review for EPA Staff to GS-14 (National Expert) (August 2010).

Regional NOAA Sea Grant Participant: Regional Planning Study Group (July 2011)

GRADUATE EXPERIENCE

1985 - 1987 Research Assistant, Department of Oceanography, Old Dominion University

1983 - 1985 Teaching Assistant, Department of Oceanography, Old Dominion University

1980 - 1983 Research Assistant, Department of Oceanography, Old Dominion University

SCHOLARSHIPS AND AWARDS

Old Dominion University Summer Scholarship (1984)

Outstanding Doctoral Student, Dept. of Oceanography (1987)

Dissertations Symposium on Chemical Oceanography Participant (1987)

Award for Excellence of Program Development-Patrick Center (1998)

MEMBERSHIPS

American Chemical Society (past)

American Geophysical Union

Society of Environmental Toxicology and Chemistry (past)

Coastal and Estuarine Research Federation

North American Benthological Society (now Soc. Freshwater Science, SFS; past)

Society of Wetlands Scientists

STUDENT ADVISEMENT/COMMITTEES

Lena Champlin; BEES PhD program, expected graduation 2022; Committee Member.

Brittany Wilburn, BEES PhD program, expected graduation 2023, Committee Member.

Michelle Gannon, BEES PhD program, 2021, Major Advisor; Graduated Summer 2021

Johannes Krause, BEES PhD program, March 2021, Committee Chair; Graduated Spring 2021

Elizabeth Lang, Ph.D., 2019; Department of Chemistry and Biochemistry; George Mason University; Graduated, 2019 (External Committee Member)

Elisabeth Powell, MS, 2018; Department of Biodiversity, Earth and Environmental Science; Drexel University (Graduated, Currently at UMD; College Park)

Raffaella Marano, BS/MS, 2017; Department of Biodiversity, Earth and Environmental Science; Drexel University (Graduated; Currently at US EPA, Region III)

Anna Jaworski, Ph.D., 2016; Department of Biodiversity, Earth and Environmental Science; Drexel University (Graduated)

Kaitlin Tucker, M.S., 2015; College of Earth, Oceans and the Environment, University of Delaware (Graduated)

Steven Pearson, Ph.D.; 2013, Department of Biodiversity, Earth and Environmental Science; Drexel University (Graduated)

Youness Sharfi, Ph.D.; 2011, Department of Civil and Environmental, College of Engineering; Temple University (Graduated)

Niveen Ismail, M.S., 2010, Department of Biology, Temple University (Graduated; attended Stanford University; presently at Smith College)

Dack Stuart, M.S., 2010, College of Earth, Ocean, and Environment, University of Delaware (Graduated)

Matthew Gray, M.S., 2010, Department of Bioscience and Biotechnology; Drexel University (Graduated, presently at Oregon State University)

Erin McKinley, BS, 2010, Department of Environmental Studies, Northland College, Ashland, WI (NSF REU 2008)

Angie Huff, MES, 2007, College of General Studies, Master of Environmental Studies, University of Pennsylvania, Philadelphia, PA.

Marcel Vasquez, BS 2008, Philadelphia University, Department of Chemistry. NSF REU Student 2007 and Chemistry Intern (2007-2008).

Ashley Smyth; B.S., 2006 (Highest Honors), Department of Marine Sciences, Carolina Environmental Program, University of North Carolina at Chapel Hill (NSF REU 2005 Advisor and Senior Thesis Co-Advisor; Post-doc Fellow, VA Institute of Marine Science; presently at University of Florida.

Lisa Methratta, Ph.D. 2002, Department of Biology; University of Pennsylvania. (Graduated)

Ms. Anne-Marie Compton-O'Brien, M.S., 2002, Department of Chemistry, Northern Arizona University, Flagstaff, Az.

Chris Osburn, Ph.D., 2000, Department of Earth and Environmental Sciences, Lehigh University (Currently at North Carolina State University)

Dana Dugan; Department of Chemistry, Philadelphia University, Summer Intern and Senior Thesis; 1999-2000

Alison Potash, Department of Oceanography, Coastal Carolina University, Summer Intern; 1999

Karin Werner, BS. 1996, Biology Department, Haverford College, Summer Intern

Nathaniel E. Ostrom, Ph.D., 1992, Department of Earth Sciences, Memorial University of Newfoundland, April, 1992. (Currently at Michigan State University; Associate Professor)

Susan Ziegler, BS, Senior Thesis, University of Massachusetts, Amherst; 1992 (Currently at Memorial University, St. Johns, Newfoundland).

CRUISE EXPERIENCE (selected)

1990 to Present	Numerous small boats for tidal wetland research	Many days
2003	R/V Bay Eagle ; Anacostia River	2 days
1999	R/V Discovery ; Delaware and Schuylkill Rivers	Many Days
1995	R/V Aquarius ; Anacostia and Potomac River Chief Scientist: Dr. David Velinsky	3 days
1989	R/V Clifford Barnes . Saanich Inlet, B.C. Chief Scientist: Dr. Bradley M. Tebo	6 days
1989	R/V Trygve Braarud . Framvaren Fjord, Norway Chief Scientist: Dr. Jens Skei	10 days
1987 - 1988	R/V Cape Henlopen . Delaware River/Bay/Shelf Chief Scientist: Dr. Jonathan H. Sharp	30 days
1985	R/V Cape Henlopen . Chesapeake Bay/Shelf. Chief Scientist: Dr. Tom Church	5 days
1983	USNS Bartlett . Gulf Stream/Exuma Sound Chief Scientist: Dr. Adam Zsolany	10 days
1982	USNS Lynch . Sargasso Sea. Chief Scientist: Dr. David Reid	20 days

PUBLICATIONS

- Brown, R, D. Charles, R. Horwitz, J.E. Pizzuto, K. Skalak, D.J. Velinsky and D.D. Hart. 2021. Size dependent effects of dams on river ecosystems, and implications for dam removal outcomes. (In press, *Ecological Applications*; 2021)
- Elsey-Quirk, T., E.B. Watson, K. Raper, D. Kreeger, B. Paudel, L. Haaf, M. Maxwell-Doyle, A Padeletti, and D.J. Velinsky. 2021. Assessing vulnerability to sea-level rise and relationships among biophysical and chemical parameters through intensive monitoring of tidal wetlands of the U.S. Mid-Atlantic. *Ecological Monitoring and Assessments*. (submitted).
- Haaf, L., E.B. Watson, T. Elsey-Quirk, K. Raper, A. Padeletti, M. Maxwell-Doyle, D. Kreeger, D.J. Velinsky. 2021. Sediment accumulation, elevation change, and the vulnerability of tidal marshes in the Delaware Estuary and Barnegat Bay to accelerated sea level rise. *Estuaries and Coasts*, online, <https://doi.org/10.1007/s12237-021-00972-9>
- Velinsky, D.J. and J.F. Wehmiller 2020. 2018 Benjamin Franklin Medal in Earth and Environmental Science presented to Susan Trumbore. *Journal of the Franklin Institute*. 357(5): 2603-2611 (<https://doi.org/10.1016/j.jfranklin.2020.01.039>.)
- Fiocca, K., K. Capobianco, E. Fanwick, K. Moynahan, R. Congdon, P. Zelanko, D.J. Velinsky and S.O'Donnell. 2020. Reproductive physiology corresponds to adult nutrition and task performance in a Neotropical paper wasp: a test of dominance-nutrition hypothesis predictions. *Behavior Ecology and Sociobiology* 74 (114) 1-8 (online).
- Velinsky, D.J., B. Paudel and C.K. Sommerfield. 2020. Long term sediment accretion record in a tidal marsh of Delaware Bay. *Proceeding of the Academy of Natural Sciences* 167(1):83-103.
- Champlin, L, D.J. Velinsky, K. Tucker, C. Sommerfield, K. St. Laurent, and E.B. Watson, 2020. Carbon sequestration rate estimates in Delaware and Barnegat Bay tidal wetlands using interpolation mapping. *Data*, 5, 11; doi:10.3390/data5010011
- Keller, D.H, P.M Zelanko, J.E. Gagnon, R.J. Horwitz, H.S. Galbraith and D.J. Velinsky. 2018. Linking otolith microchemistry and surface water contamination from natural gas mining. *Environmental Pollution* 240: 437-465.
- Parette, R., D.J. Velinsky and W.N. Pearson. 2018. Reconstruction of historical 2,3,7,8 tetrachlorodibenzo-p-dioxin discharges from a former pesticides manufacturing plant to the Lower Passaic River. *Chemosphere*. 212: 1125-1132
- Holmquist, J.R., L. Windham-Myers, S. Crooks, J. Morris, J.P. Megonigal, T. Troxler, D. Weller, N. Bliss, J. Callaway, J. Drexler, M. Ferner, M. Gonnee, K. Kroeger, L. Schile, I. Woo, K. Buffinton, J. Breithaupt, B. Boyd, L. Brown, N. Dix, L. Hice Dutton, B. Horton, G. MacDonald, R. Moyer, T. Shaw, E. Smith, J.D. Smoak, C. Sommerfield, K. Thorne, D.J. Velinsky; E.B. Watson, K. Wilson, and M. Woodrey. 2018. Simple Empirical Relationships Estimate Tidal Wetland Soil Carbon Stock More Accurately and Precisely than High Resolution Soil Maps. *Nature Scientific Reports* 8: 947

- O'Donnell, S., K. Fiocca, M. Campbell, S. Bulova, P. Zelanko and D. Velinsky. 2018. Adult nutrition and reproductive physiology: a stable isotope analysis in a eusocial paper wasp (*Mischocyttarus mastigophorus*, Hymenoptera: Vespidae). *Behavioral Ecology and Sociobiology* 72: 86 [1–8].
<https://doi.org/10.1007/s00265-018-2501-y>
- Velinsky, D.J.; B. Paudel; T. Quirk; M. Piehler and A. Smyth, A., 2017. Salt marsh denitrification provides a significant nitrogen sink in Barnegat Bay, New Jersey. *Journal of Coastal Research* SI78 70-78.
- Paudel, B., N. Weston, L. Sutter, J O'Connor, and D.J. Velinsky. 2017. Phosphorus dynamics in the water column and sediments of Barnegat Bay, New Jersey. *Journal of Coastal Research* SI78: 60-69.
- Velinsky, D.J., B. Paudel, and C.K. Sommerfield. 2017. Tidal marsh record of nutrient loadings in Barnegat bay, New Jersey. *Journal of Coastal Research* SI78: 79-88.
- Desianti, N. M. Potapova, M. Enache, T. Belton, D.J. Velinsky, R. Thomas, and J. Mead. 2017. Sediment diatoms as environmental indicators in New Jersey coastal lagoons. *Journal of Coastal Research* SI78: 127-140.
- Unger, V., T. Elsey-Quirk, C. Sommerfield and D.J. Velinsky. 2016. Stability of organic carbon accumulating in *Spartina alterniflora*-dominated salt marshes of the mid-Atlantic US. *Estuarine Coastal and Shelf Science*. 182: 179-189.
- Nyphus, R. and others. 2016. Environmental Deans and Directors Call for NSF Climate Funding. *Science* 352: 755-756.
- Ashley, J.T.F, R. Soroka, Y. Cintron, A. Sarno, L. Zaoudeh, D. J. Velinsky and J. Baker. 2016. Can polychlorinated biphenyls be removed from Chesapeake Bay by a commercial fishery? *Integrated Environmental Assessment and Management*, 2(12); 397–406
- Paudel, B., D.J. Velinsky, T. Belton, and H. Pang. 2016 Spatial variability of estuarine environmental drivers and response by phytoplankton: A model based approach. *Ecological Informatics* 34 (2016) 1–12
- Velinsky, D.J., H. Holland, and F.N Scatena. 2015. 2013 Benjamin Franklin Medal in Earth and Environmental Science presented to Robert Arbuckle Berner. *Journal of the Franklin Institute* 352(7): 2591-2595.
- Rowell, H.C, R.F. Bopp, F. Peng, D.J. Velinsky, and J.A. Bloomfield. 2015. Annually Laminated Sediments in Onondaga Lake, NY: high resolution stratigraphy for interpreting lake degradation and recovery. *Journal of Paleolimnology* 53: 107-121 (DOI 10.1007/s10933-014-9811-5)
- Weston, N.B, S.C. Neubauer, D.J. Velinsky and M.A. Vile. 2014. Net Ecosystem Carbon Exchange an the Greenhouse Gas Balance of Tidal Marshes along an Estuarine Salinity Gradient. *Biogeochemistry*: 120: 163-189. (August)
- Pearson, S.H., S.S. Kilham, D.J. Velinsky, J.R. Spotila, and H.W. Avery. 2013 Stable isotopes of C and N reveal habitat dependent dietary overlap between native and introduced turtles *Pseudemys rubriventris* and *Trachemys scripta*. *PLOS One* 8(5): e62891 (doi:10.1371/journal.pone.0062891)

- Smith, A.J., R.L. Thomas, J.K. Nolan, D.J. Velinsky, S. Klein, and B.T. Duffy. 2013. Regional nutrient thresholds in wadeable streams of New York State protective of aquatic life. *Ecol. Ind.* 29: 455-467.
- Elsey-Quirk, T., A. Smyth, M. Piehler, J. Mead and D.J. Velinsky 2013. Exchange of nitrogen through an urban tidal freshwater wetland in Philadelphia, PA. *Jour. Environ. Qual.* 42: 1-12.
- Ismail, N.S., D.J. Velinsky, J.T.F. Ashley and R.W. Sanders. 2013. Chorioallantoic membrane as a non lethal sampling method for polychlorinated biphenyls analysis in the northern diamondback terrapin (*Malaclemys terrapin terrapin*). *Chemistry and Ecology* 29(5): 391-4023.
- Ashley, J.T.F., J.S. Ward, C.S. Anderson, M.W. Schafer, L. Zaoudeh, R.J. Horwitz and D.J. Velinsky 2013. Children's daily exposure to polychlorinated biphenyls from dietary supplements containing fish oils. *Food Additives & Contaminants: Part A* (in press; online, DOI:10.1080/19440049.2012.753161)
- Ashley, J.T.F., M. A. Vasquez, P. Zelanko, E. McKinley, M. Schafer, L. Zaoudeh, R. Horwitz, H.M. Stapleton and D.J. Velinsky. 2012. Accumulation of polybrominated diphenyl ethers (PBDEs) and polychlorinated biphenyls (PCBs) in a tidal freshwater marsh. *Chemistry and Ecology* 28: 305-326.
- Bushaw-Newton KL, Ewers E, Fortunato CS, Ashley JT, Velinsky DJ, SE MacAvoy. 2012. Bacterial community profiles from sediments of the Anacostia River using metabolic and molecular analyses. *Environmental Science and Pollution Research* 19 (4): 1271-1279.
- Zelanko, P.M., N.H. Rice and D.J. Velinsky. 2011. Using carbon and nitrogen stable isotopes to distinguish the location of feather growth in Osprey. *Proceed. Academy of Natural Sciences* 161: 1-10.
- Bushaw-Newton K.L., E.C. Ewers, D.J. Velinsky, J.T.F. Ashley and S. MacAvoy. 2012. Bacterial community profiles from sediments of the Anacostia River using metabolic and molecular analyses. *Environmental Science and Pollution Research* 19: 1271-1279
- Velinsky, D.J., G.R. Riedel, J.T. Ashley and J. Cornwell 2011. A contamination history of the Anacostia River, Washington, D.C. *Environmental Assessment and Monitoring* 183(1): 307-328.
- Weston, N.B., M.A. Vile, S.C. Neubauer and D.J. Velinsky. 2011. Accelerated microbial organic matter mineralization following salt-water intrusion into tidal freshwater marsh soils. *Biogeochemistry* 102 (1-3):135-151.
- Stansley, W., D.J. Velinsky and R. Thomas. 2010. Mercury and halogenated organic contaminants in river otters (*Lontra Canadensis*) in New Jersey USA. *Environmental Toxicology and Chemistry*; 29: 2235-2242.
- Ashley, J.T.F., J.S. Ward, M.W. Schafer, H.M. Stapleton, and D.J. Velinsky. 2010 Polychlorinated biphenyls and polybrominated diphenyl ethers in fish oil supplements: Evaluating exposure and health risks. *Food Additives and Contaminants* 27(8): 1177-1185.
- Ashley, J.T.F., M.L. Webster, J.E. Baker, R. Horwitz, and D.J. Velinsky. 2009. Polychlorinated biphenyls in sediment and biota from the Delaware River estuary. *Proceedings of the Academy of Natural Sciences*. 158: 89-105

- McGee, B.L., A.E. Pinkney, D.J. Velinsky, J.T.F. Ashley, D.J. Fisher, L.C. Ferrington and T.J. Norberg-King. 2009. Using the sediment quality triad to characterize baseline conditions in the Anacostia River, Washington, DC. *Environmental Monitoring and Assessment*: 156: 51-67
- Bushaw-Newton, K.L., D.A. Kreeger, S. Doaty, and D.J. Velinsky. 2008. Utilization of *Spartina*-and *Phragmites*-derived dissolved organic matter by bacteria and ribbed mussels (*Geukensia demissa*) from Delaware Bay salt marshes. *Estuaries and Coasts* 31: 694-703.
- Fairchild, G.W. and D.J. Velinsky. 2006. Effects of small ponds on headwater stream water chemistry. *Lake and Reservoir Management*. 22: 22(4): 321-330.
- Church, T.M., C. Sommerfield, D.J. Velinsky, D. Point, C. Benoit, D. Amouroux, D. Plaa and O. Donard. 2006. Marsh sediments as records of sedimentation, eutrophication and Metal pollution in the urban Delaware Estuary. *Marine Chemistry* 102(1-2): 72-95.
- Velinsky, D.J., K. Bushaw-Newton, T.E. Johnson and D.A. Kreeger. 2006. Effects of a dam removal in SE Pennsylvania on stream chemistry. *Journal of the North American Benthological Society (JNABS)* 25(3):569-582.
- Ashley, J.T.F., K. Bushaw-Newton, M. Wilhelm, A. Boettner, G. Drames, and D.J. Velinsky. 2006. The effects of small dam removal on the distribution of sedimentary contaminants. *Environmental Monitoring and Assessment* 114(1-3): 287-312.
- Fairchild, G.W., J.N. Anderson and D.J. Velinsky. 2005. The trophic state "chain of relationships" in ponds: does size matter? *Hydrobiologica* 539: 35-46.
- Bushaw-Newton, K.L., J. T. Ashley, and D.J. Velinsky. 2005. A Process for Assessing the Ecological Effects of a Proposed Dam Removal. *Hydroreview* 24(3): 36-44.
- Ashley, J.T.F., A. Moore, H. Stapleton, and D.J. Velinsky. 2003. Sedimentary nonylphenol contamination in an urbanized/industrialized segment of the Delaware River Estuary, USA. *Bull. Environ. Cont. Toxicol.* 70: 978-984.
- Hart, D.D., T.E. Johnson, K. Bushaw-Newton, R.J. Horwitz, A. Bednarek, D.F. Charles, D.A. Kreeger and D.J. Velinsky. 2002. Dam Removal: Challenges and Opportunities for Ecological Research and River Restoration. *Bioscience* 52(8): 669-681.
- Bushaw-Newton, K.L., D. D. Hart, T. E. Johnson, J. Pizzuto, J. Egan, M. Keeley, J. Lawrence, J. Thomson, J.T. Ashley, R.J. Horwitz, D. Charles, C. Gatenby, D.A. Kreeger, T. Nightengale, R.L. Thomas and D.J. Velinsky. 2002. An Integrative Approach Towards Understanding Dam Removal: The Manatawny Creek Study. *Jour. American Water Resources Association* 38(6): 1581-1600.
- Johnson T.E., W.C. Hession, D.F. Charles, R.J. Horwitz, D.A. Kreeger, B.D. Marshall, J.D. Newbold, J.E. Pizzuto and D.J. Velinsky. 2001. An interdisciplinary study of the ecological benefits of riparian reforestation in urban watersheds. In: *Proceedings of the World Water and Environmental Resources Congress (ASCE)*, May 20-24, 2001, Orlando, FL, Section 1, Chapter 242.
- Foster, G.D., E.C. Roberts, B. Gruessner and D.J. Velinsky. 2000. Hydrogeochemistry and transport of organic contaminants in an urban watershed of Chesapeake Bay. *Applied Geochemistry* 15: 901-915.

- Hession, W.C., T.E. Johnson, D.F. Charles, D.D. Hart, R.J. Horwitz, D.A. Kreeger, J.E. Pizzuto, D.J. Velinsky, J.D. Newbold, T. Clason, A.M. Compton, N. Coulter, L. Fuselier, B.D. Marshall, and J. Reed. 2000. Ecological benefits of riparian reforestation in urban watersheds: Study design and preliminary results. *Environ. Monitor. Assess.* 63(1): 211-222.
- Velinsky, D.J. and M.L. Fogel 1999. Cycling of dissolved and particulate nitrogen and carbon in the Framvaren Fjord, Norway: Isotopic variations. *Marine Chemistry* 67: 161-180.
- Huanxin, W., B.J. Presley, and D.J. Velinsky. 1997. Distribution and sources of phosphorus in tidal river sediments in the Washington, D.C. area. *Environmental Geology* 30(3/4): 224-230.
- Pennock, J.R., D.J. Velinsky, J.L. Ludlam, J.H. Sharp, and M.L. Fogel. 1996. Isotopic fractionation of nitrogen during the uptake of ammonium and nitrate by *Skeletonema costatum*. *Limnology and Oceanography*. 41(3): 451-459.
- Velinsky, D.J., T.L. Wade, C. Schlekot and B.J. Presley. 1994. Tidal river sediments in the Washington, D.C. area. I. Distribution and sources of trace metals. *Estuaries*, 17: 305-320.
- Wade, T.L., D.J. Velinsky, E. Reinharz, and C.E. Schlekot. 1994. Tidal river sediments in the Washington, D.C. area. II. Distribution and sources of chlorinated and non-chlorinated aromatic hydrocarbons. *Estuaries*, 17: 321-333.
- Schlekot, C.E., B.L. McGee, D.M. Boward, E. Reinharz, T.L. Wade, and D.J. Velinsky. 1994. Tidal river sediments in the Washington, D.C. area. III. Biological effects associated with sediment contamination. *Estuaries*, 17: 333-344
- Fogel, M.L., L.A. Cifuentes, D.J. Velinsky, and J.H. Sharp. 1992. Carbon limitation during photosynthesis by estuarine phytoplankton. *Marine Ecology Progress Series*, 82: 291-300.
- Velinsky, D.J., D.J. Burdige and M.L. Fogel. 1991. Nitrogen diagenesis in marine sediments: Isotope effects. Carnegie Institution Yearbook; *Annual Report of the Director*, Geophysical Laboratory, 1990-1991, 2250, 154-162.
- Velinsky, D.J., J.F. Todd, B.M. Tebo and M.L. Fogel. 1991. Isotopic fractionation of dissolved ammonium in anoxic waters. *Geophy. Res. Letters*: 18(4): 649-652.
- Velinsky, D.J. and G.A. Cutter. 1991. Diagenesis of selenium in a coastal salt marsh. *Geochim. Cosmochim. Acta*: 55, 179-191.
- Velinsky, D.J. and G.A. Cutter. 1990. Determination of elemental selenium and pyrite-selenium in sediments. *Anal. Chim. Acta* 235: 419-425.
- Coffin, R.B., D.J. Velinsky, R. Devereux, W.A. Price and L.A. Cifuentes. 1990. Stable carbon and nitrogen isotopes analysis of bacterial nucleic acids. *App. Environ. Microbiol.* 56 (7): 2012-2020.
- Velinsky, D.J., T.C. Hoering, T.G. Ferdelman, G.W. Luther, L.A. Cifuentes, and T.M. Church. 1990. Determination of the $\delta^{34}\text{S}$ of elemental sulfur from marine sediments. Carnegie Institution Yearbook; *Annual Report of the Director*, Geophysical Laboratory, 1989-1990, 2200; 118-122.

Velinsky, D.J., J.R. Pennock, J.H. Sharp, L.A. Cifuentes, and M.L. Fogel. 1989. Determination of the isotopic abundance of dissolved ammonium-nitrogen from estuarine waters at the natural abundance level. *Marine Chemistry* 26: 351-361.

Velinsky, D.J., M.L. Fogel, and B. M. Tebo. 1989. Isotopic composition of dissolved nitrogen in the Black Sea. Carnegie Institution Yearbook; *Annual Report of the Director*, Geophysical Laboratory, 1988-1989, 2150; 123-130.

Cutter, G.A. and D.J. Velinsky. 1988. Temporal variations of sedimentary sulfur in a Delaware salt marsh. *Marine Chemistry* 23(3/4): 311-328.

Fogel, M.L., D.J. Velinsky, L.A. Cifuentes, J.R. Pennock and J.H. Sharp. 1988. Biogeochemical processes affecting the stable carbon isotopic composition of particulate carbon in the Delaware Estuary. Carnegie Institution Yearbook; *Annual Report of the Director*, Geophysical Laboratory, 1987-1988, 2102; 107- 113.

Velinsky, D.J., T.L. Wade, and G.T.F. Wong. 1986. Atmospheric deposition of organic carbon to Chesapeake Bay. *Atmospheric Environment* 20(5):941-947.

ABSTRACTS AND PRESENTATIONS

Gannon ME, Watson EB, Oczkowski A, Raper K, Velinsky DJ. 2019. Stable Isotope (CNS) variability in modern and historical fauna of Barnegat Bay, NJ. Geological Society of America Annual Meeting, Phoenix, AZ. Poster Presentation

Gannon ME, Velinsky DJ, Romanek CS . 2019. Detangling stable carbon isotopes in giant clam shells: Discrepancies between shell layers and the Suess Effect. Geological Society of America Annual Meeting, Phoenix, AZ. Poster Presentation

Gannon ME, Watson EB, Oczkowski A, Raper K, Velinsky DJ. 2019. Spatial and temporal variability of CNS stable isotope systematics in flora and fauna of Barnegat Bay, NJ. Coastal and Estuarine Research Federation Biennial Conference. Oral Presentation

Champlin, L., D.J. Velinsky, K. Collins, C.S. Sommerfield, K. St Laurent, and E.B. Watson. 2019. A comparison of annual and decadal-scale carbon sequestration rates in New Jersey, Pennsylvania, and Delaware tidal wetlands using interpolation mapping. Society of Wetland Scientist Annual Meeting, May 28, Baltimore, MD.

Fiocca, K; E. Fanwick, K. Moynahan, K. Capobianco, P. Zelanko, D.J. Velinsky, S. O'Donnell 2019. Effects of nutritional physiology on reproductive caste in a eusocial tropical paper wasp (*Mischocyttarus pallidipectus*). Joint Ecological Society of America and USSEE Meeting, August. 2019. Louisville, Ky.

Champlin, L., D.J. Velinsky, C. Sommerfield, K. Raper, L. Haaf, K. St. Laurent, T. Quirk, and E.B. Watson. 2018. A comparison of annual and decadal-scale carbon sequestration rates in New Jersey, Pennsylvania, and Delaware tidal wetlands using interpolation mapping. Poster presentation at the Delaware Wetlands Conference, January 31 – February 2, 2018, Wilmington, DE.

- Raper, R. L. Haaf, T. Quirk, M. Maxwell-Doyle, E.B. Watson, D. J. Velinsky, D. Kreeger, and A. Padeletti. 2018. The relative importance of elevation change and hypsometry as benchmarks for coastal wetland vulnerability to sea level rise. Poster presentation at the Delaware Wetlands Conference, January 31 – February 2, 2018, Wilmington, DE.
- Raper, R. L. Haaf, T. Quirk, M. Maxwell-Doyle, E.B. Watson, D. J. Velinsky, D. Kreeger, and A. Padeletti. 2018. The relative importance of elevation change and hypsometry as benchmarks for coastal wetland vulnerability to sea level rise. Poster presentation at the Atlantic Estuarine Research Society, March 21, 2018, Rehoboth Beach, DE.
- Velinsky, D.J., J. Cornwell, M. Owens, D. Walsh, and J. Kardos. 2017. Extensive Biogeochemical Sampling of the Sediment and Water Column in the Tidal Freshwater Delaware River, 2012-2014. Presentation delivered at the Delaware Estuary Science and Environmental Summit meeting, Cape May, NJ, January 2017.
- Watson, E, R. Martin, K. Wasson, K. Beheshti, E. Powell, D. Velinsky and C. Wigand. 2017. Do Nitrous Oxide Emissions Offset Potential Greenhouse Gas Mitigation Benefits of Wetland Restoration in Eutrophic Estuaries? Presentation delivered at the Delaware Estuary Science and Environmental Summit meeting, Cape May, NJ, January 2017
- Weston, N., S. Neubauer, D. Velinsky, and M. Vile 2017. Net Ecosystem Carbon Exchange and the Greenhouse Gas Balance of Tidal Marshes along the Salinity Gradient in the Delaware River Estuary. Presentation delivered at the Delaware Estuary Science and Environmental Summit meeting, Cape May, NJ, January 2017
- Rahman, F.R. Watson, E.B., A.J. Oczkowski, K. Raper, A.B. Gray, C. Wigand, and D. Velinsky, F.I. Rahman. 2016. Impacts of episodic storms on coastal wetland processes in the Northeastern U.S. American Geophysical Union Fall Meeting, 12-16 December 2016, San Francisco, CA.
- Raper, K., T. Elsey-Quirk, D. Velinsky, D. Kreeger, A. Padeletti, and M. Maxwell-Doyle, and E.B. Watson. 2016. Intensive long-term monitoring in tidal wetlands of Delaware and Barnegat Bays. Fall Meeting of the New England Estuarine Research Society: Block Island, RI, 20-22 October 2016.
- Raper, K., E.B. Watson, and D.J. Velinsky. 2016. Impacts of episodic storms on an urban freshwater wetland. The Atlantic Estuarine Research Society Fall Meeting: Baltimore, MD, 18-20 November, 2016.
- Desianti, N., Potapova, M., Belton, T., Enache, M., Kiry, P., Thomas, R., Velinsky, D., Zelanko, P. & Mead, J. 2016. Sediment Diatoms as Indicators of Nutrients in Mid-Atlantic Coastal Wetlands and Lagoons. Presentation at the US EPA Region 2 Nutrients Regional Technical Advisory Group Meeting, April 6, 2016, New York, NY.
- Clark, K et al. 2015. River suspended sediment, particulate organic carbon and particulate nitrogen transport in two montane catchments in the Luquillo Critical Zone Observatory, Puerto Rico. American Geophysical Union Fall Meeting, San Francisco, CA, 14-18 December, 2015.

- Owens, M.S., Cornwell, J. C, Kardos, J.S., Velinsky, D.J., and Walsh, D. Sediment Nitrogen Cycling in an urbanized region of the Delaware River. 2015. Oral Presentation at Coastal and Estuarine Research Federation, Bi-annual Meeting, Portland, OR (November, 2015)
- Paudel, B., D.J. Velinsky, N. Weston, and G. Keighton (student). 2015. Phosphorus Dynamics in the Barnegat Bay. Oral Presentation at Coastal and Estuarine Research Federation, Bi-annual Meeting, Portland, OR (November, 2015)
- Tucker, K.J., C.K. Sommerfield, and D.J. Velinsky. 2015. Time dependence of carbon accumulation in Delaware tidal marshes. Oral Presentation at Coastal and Estuarine Research Federation, Bi-annual Meeting, Portland, OR (November, 2015)
- Velinsky, D.J., C.K. Sommerfield and T. Quirk. 2015. Carbon, nitrogen and phosphorus sequestration in Delaware River tidal wetlands. Poster Presentation at Coastal and Estuarine Research Federation, Bi-annual Meeting, Portland, OR (November, 2015)
- Ashley, J.T.F., Soroka, R., A. Sarna, L. Zaoudeh, D.J. Velinsky and J.E. Baker. 2015. Removal of Polychlorinated Biphenyls from the Chesapeake Bay by the Commercial Menhaden Fishery. SETAC Europe 25th Annual Meeting, Barcelona, Catalonia, Spain, 3-7 May 2015.
- Soroka, R., A. Sarna, Y. Cintron, J.T.F. Ashley, L. Zaoudeh, D.J. Velinsky and J.E. Baker. 2015. Quantifying Polychlorinated Biphenyl Removal from the Chesapeake Bay by a Commercial Fishery. CPRC SETAC Annual Spring Meeting; Friday April 24th, 2015; Robinson Nature Center, Columbia, MD
- Raper, K., T. Elsey-Quirk, D.J. Velinsky, D. Kreeger, A. Padeletti, and M. Maxwell-Doyle. Variation in Recent Marsh Accretion along Delaware and Barnegat Bays. Poster presentation delivered at the Delaware Estuary Science and Environmental Summit meeting, Cape May, NJ, January 2015. <http://delawareestuary.org/node/243>
- Raper, K and D.J. Velinsky. Continued Monitoring of the Largest Freshwater Tidal Wetland in Pennsylvania with Implications for Sea Level Rise and Conservation Strategies. Oral presentation to the Delaware Valley Regional Planning Commission for potential funding under the Coastal Zone Management Program, Philadelphia, PA, December 2014.
- Raper, K., T. Elsey-Quirk, D.J. Velinsky, D. Kreeger, A. Padeletti, and M. Maxwell-Doyle. Intensive Long-Term Monitoring in Tidal Wetlands of Delaware and Barnegat Bays. Poster presentation at the Mid-Atlantic Regional Climate Symposium, Rutgers Climate Institute, Rutgers University, New Brunswick, NJ, November 2014. <http://climatechange.rutgers.edu/events/>
- Raper, K., D. Velinsky, T. Elsey-Quirk, D. Kreeger, A. Padeletti, M. Maxwell-Doyle, and E. Watson. Value of a sentinel site monitoring program for assessing tidal wetland carbon sequestration rates. Anticipated poster presentation for Waquoit Bay NERRS Conference “Capitalizing on Coastal Blue Carbon” at The Conference Center at Massasoit Community College. Brockton, MA, May 2015. <http://www.waquoitbayreserve.org/wp-content/uploads/Poster-Session-v2.pdf>

- Potapova, M., Desianti, N., Belton, T., Enache, M., Kiry, P., Thomas, R., Velinsky, D.J., Zelanko, P. & Mead, J. 2014. Relationship between coastal diatom assemblages and water quality in Barnegat Bay, New Jersey, U.S.A. Presentation at the US EPA Region 2 Numeric Nutrient Criteria Workshop, April 1, 2014, New York, NY.
- Potapova, M., Desianti, N., Belton, T., Enache, M., Kiry, P., Thomas, R., Velinsky, D.J., Zelanko, P. & Mead, J. 2013. Relationship between coastal diatom assemblages and water quality in Barnegat Bay, New Jersey, U.S.A. Presentation at the Barnegat Bay researchers' workshop, December 12, 2013, Bordentown, NJ
- Desianti, N., Belton, T., Enache, M., Kiry, P., Potapova, M., Thomas, R., Velinsky, D.J., Zelanko, P. & Mead, J. 2013. Relationship between coastal diatom assemblages and water quality in Barnegat Bay, New Jersey, U.S.A. Presentation at the 22nd North American Diatom Symposium, August 13-17, 2013, Bar Harbor, Maine.
- Unger, V., T. Quirk, C.S. Sommerfield and D.J. Velinsky. 2013. Carbon burial in salt marshes: A comparison of a coastal lagoon and coastal plain estuary in the Mid Atlantic U.S. Coastal and Estuarine Research Federation (CERF); San Diego, CA
- Fleming, T., C. Anderson, L. Quast, D.J. Velinsky and JTF Ashley. 2011. Assessing PAH Residues from Third Hand Tobacco Smoke: Significant Vector for Exposure or a Non-Issue? Presented at the Annual Conference of the Society for Environmental Toxicology and Chemistry, Boston, MA (November 2011).
- Ward, J., C. Anderson, M.W. Schafer, L. Zaoudeh, and D.J. Velinsky. 2011. Childhood Exposure to PCBs from Dietary Supplements Containing Fish Oils.. Presented at the Annual Conference of the Society for Environmental Toxicology and Chemistry, Boston, MA (November 2011).
- Sommerfield, C.K. and D.J. Velinsky. 2011. Understanding tidal marsh accretion in Delaware Estuary. Presented at the 2011 Delaware Estuary Science Conference, Cape May, NJ. Partnership for the Delaware Estuary (www.delawareestuary.org/news_pde_science_conference_presentations.asp)
- Elsley-Quirk, T., A. Smyth, M. Piehler, B.P. Horton, J. Mead and D.J. Velinsky. 2011. Dentrification in an urban tidal freshwater wetland of the Delaware. Presented at the 2011 Delaware Estuary Science Conference, Cape May, NJ. Partnership for the Delaware Estuary (www.delawareestuary.org/news_pde_science_conference_presentations.asp)
- Zelanko, P., N.H. Rice, and D.J. Velinsky 2010. Using stable isotopes of an apex predator to infer ecosystem characteristics over time in the Delaware Bay region. Presented at the Tenth International Conference on Applications of Stable Isotope Techniques to Ecological Studies; University of Alaska, Fairbanks (AK); June 2010.
- Sommerfield, C.K. and D.J. Velinsky. 2010. Sediment Accumulation and Marsh Accretion in Tidal Wetlands of a Coastal Plain Estuary. Presented at the 2010 American Geophysical Ocean Sciences Meeting, Portland, OR.
- Thomas, R., D.J. Velinsky, D. Charles, and C.K. Sommerfield. 2009. Tidal Marshes in the Delaware Estuary: Historical Reconstruction of Chemical Loadings and Ecosystem Effects. Presented at the 2009 Coastal and Estuarine Research Federation Meeting, Portland, OR.

- Enache, M. D.J. Velinsky, D. Charles, and C.K. Sommerfield. 2009. Diatom-based Reconstruction of Past Environmental Changes in the Delaware River Tidal Region along a North-South Transect. Presented at the 2009 Coastal and Estuarine Research Federation Meeting, Portland, OR.
- Weston, N.B., M.A. Vile, S.C. Neubauer and D.J. Velinsky. 2009. The impact of climate change and sea level rise on tidal freshwater marshes of the Delaware River Estuary. Presented at the 2009 Delaware Estuary Science Conference, Cape May, NJ.
- Zelanko, P., E. McKinley, J.T.F. Ashley, M. Vasquez, R. Horwitz, and D.J. Velinsky. 2009 Trophic Relationships within Tinicum Marsh, Philadelphia, PA: Insights from the Stable Isotopes of Carbon and Nitrogen. Presented at the 2009 Delaware Estuary Science Conference, Cape May, NJ.
- Velinsky, D.J. 2008. Impact of Climate Change on the Water Quality and Biogeochemical Processes. Presented at workshop hosted by Academy and Partnership for the Delaware Estuary (May, 2008); *Climate Change in the Delaware Estuary*. The Academy of Natural Sciences (Forum and Town Square) (Invited).
- Horwitz, R.J., D. Velinsky, and D. Charles. The Manatawny Creek Dam Removal Study. Invited presentation at symposium on dam removal. State College, PA. May, 2008.
- Velinsky, D.J. 2008. Tidal Marshes in the Delaware Estuary: Historical Reconstruction of Chemical Loadings and Ecosystem Effects. 2008 Zhoushan National Symposium on Mariculture, Zhejiang Ocean University (Invited)
- McKinley, E., P. Zelanko, J.Ashley and D.J.Velinsky. 2008. Trophic Relationships within Tinicum Marsh, Philadelphia, PA: Insights from the Stable Isotopes of Carbon and Nitrogen. 2008 Sigma Xi Annual Meeting and Student Research Conference, Washington, DC.
- Weston, N.B., M.A. Vile, D.J. Velinsky, S.C. Neubauer and S.B. Joye. 2007. Shifting Pathways and Magnitude of Organic Matter Mineralization in Tidal Freshwater Marshes Following Sea-Level Rise. Estuarine Research Federation, Providence, RI.
- Velinsky, D.J., C. Sommerfield, J.A. Ashley, R. Greene, and D. Charles. 2007. Tidal marshes in urban environments: Historical reconstruction of chemical loadings and ecosystem effects. Society of Environmental Toxicology and Chemistry 28th Annual Meeting, Milwaukee, WI November, 2007.
- Schafer, M. L. Zaoudeh, D. Butera, G.F. Riedel, D.J. Velinsky, J.A. Ashley, and J. Cornwell. 2007. Sediment contamination in the tidal freshwater Potomac and Anacostia Rivers: A pollution history of Washington, D.C. Society of Environmental Toxicology and Chemistry 28th Annual Meeting, Milwaukee, WI November, 2007.
- Thomas, R.L. D.F. Charles, C.A. Flinders and D.J. Velinsky. 2007. A Multi-Year Study of Periphyton Dynamics in the Jackson River: Patterns of Biomass and Community Structure and the Relationship to Physico-Chemical Conditions. North American Benthological Society 55th Annual Meeting, Columbia, SC, June 2007.

- Flinders, C.A., D.F. Charles, O. Gibb, D.D. Hart, R.J. Horwitz, R.L. Thomas, D.J. Velinsky, J. Zalack. 2007. Using Pulsed Flows in the Jackson River: Spatial Effects of a Planned and Natural Pulsed Flow Event on Biomass. North American Benthological Society 55th Annual Meeting, Columbia, SC, June 2007.
- Horwitz, R.J., D.F. Charles, C.A. Flinders, D.D. Hart, D.H. Keller, R.L. Thomas, D.J. Velinsky, J. Zalack. 2007. Using Pulsed Flows in the Jackson River: Effects of High Flow Refuges on Periphyton Biomass during a Pulsed Flow Experiment. North American Benthological Society 55th Annual Meeting, Columbia, SC, June 2007.
- Vile, M., N. Weston, D. Velinsky, and S. Neubauer. 2007. Assessing the Impact of Climate Change Induced Sea-Level Rise on Carbon Cycling Dynamics in Freshwater Tidal Marshes. Presented at the Society of Wetland Scientists, 10th International Symposium on Biogeochemistry of Wetlands, Annapolis, MD. April, 2007.
- Weston, N.B., M.A.Vile, D.J.Velinsky, S. Joye and S.C. Neubauer. 2007. Rising sea levels and salinity intrusion into tidal freshwater marshes: Shifting microbial communities and pathways of organic matter mineralization. Presented at the American Society of Limnology and Oceanography 2007 Annual Meeting. Santa Fe, NM, February, 2007.
- Fairchild, G.W. and D.J. Velinsky. 2007. The chemical effects of ponds on streams. Presented at the American Society of Limnology and Oceanography 2007 Annual Meeting. Santa Fe, NM. February, 2007.
- McLaughlin, C, A Smyth, DJ Velinsky, NB Weston, O Gibb, R Thomas, and MA Vile. The Impact of Salinity Intrusion on the Biogeochemical Cycling of C in Sediments from Tidal Freshwater Marshes. 2006. Presented at the Atlantic Estuarine Research Society (AERS) Meeting at The Academy of Natural Sciences, Philadelphia, PA. (March, 2006).
- Weston, NB, DJ Velinsky, D Fonseca and MA Vile. 2006. Climate Change and Salinity Intrusion into Tidal Freshwater Marshes: Coupling Shifting Microbial Populations and Community Compositions to Attendant Changes in Metabolic Rates. Presented at the Atlantic Estuarine Research Society (AERS) Meeting at The Academy of Natural Sciences, Philadelphia, PA (March, 2006).
- Fairchild, G.W. and D.J. Velinsky. 2006. Chemical Transformations of streamwater by headwater ponds of varying size and trophic state. 91st Ecological Society of America (ESA) Meeting, Memphis, TN (Aug, 2006)
- Smyth, A, D.J.Velinsky, S.Ensign, M.Phieler and M. Vile. 2006. Two Marshes, One Problem: The Impact of Sea Level Rise on Freshwater Tidal Marshes. Presented at the Southeast Estuarine Research Society (SEERS) Meeting. Savannah, GA (October 2006).
- McLaughlin, C., A. Smyth, D.J. Velinsky, R.L. Thomas, and M. Vile. 2006. The impact of salinity intrusion on the biogeochemical cycling of C in sediments from tidal freshwater marshes. North American Benthological Society Annual Meeting, Athens, GA. June, 2006. *Bulletin of the North American Benthological Society*. 23(1): 749.

- Velinsky, D.J., C.J. Flinders, D.F. Charles, and R.L. Thomas. 2006. Thomas Benthic algae response following phosphorus reduction in a nutrient point source. North American Benthological Society Annual Meeting, Athens, GA. June, 2006. *Bulletin of the North American Benthological Society*. 23(1): 704.
- Fairchild, G.W. and D.J. Velinsky. 2005. Physicochemical determinants of trophic state, nutrient transformations and downstream export in headwater ponds. North American Lake Management Society (NALMS) Annual Meeting. Madison, WI
- Velinsky, D.J., G.F. Riedel, J. Ashley, G. Foster, and C. Schultz. 2004. Spatial and temporal changes in trace contaminants in the tidal Anacostia River after precipitation events. Pg. 148 (talk 668). Presented at the 25th Annual Meeting of the Society of Environmental Toxicology and Chemistry, Portland, OR, November, 2004.
- Riedel, G.F., D.J. Velinsky, J. Ashley, T.L. Wade, and J. Cornwell. 2004. Sediment contamination in the Anacostia River: A pollution history of Washington, D.C. pg. 124 (talk 552). Presented at the 25th Annual Meeting of the Society of Environmental Toxicology and Chemistry, Portland, OR, November, 2004.
- Velinsky, D.J., Ashley, J.T.F. and C. Schultz. 2004. Understanding the fate and transport of PCBs in the tidal freshwater Anacostia River, Washington, D.C. 228th National American Chemical Society, Philadelphia, PA (Abst # 768675).
- Kreeger, D. A., R.L. Thomas, N. Saxe and D.J. Velinsky. 2003. Spatial and temporal variability in fitness and carbon and nitrogen stable isotopes in *Crassostrea Virginica* in San Antonio Bay, TX. Presented at the 2003 Estuarine Research Federation, Seattle, WA.
- Velinsky, D.J., C.A. Flinders, N.E. Saxe and R.L. Thomas. 2003. Incorporation of pulp mill effluent solids in aquatic food webs: use of carbon and nitrogen stable isotopes. North American Benthological Society Annual Meeting, Athens, GA. June, 2003. *Bulletin of the North American Benthological Society*. 20(1): 232.
- Church, T., C. Sommerfield, D.J. Velinsky, D. Point, C. Benoit, D. Amouroux, O. Donard. 2003. Historical Pollution As Recorded In Marsh Sediments Of The Upper Delaware River. *Eos Trans. American Geophysical Union*, 84(52), Ocean Sci. Meet. Suppl., Abstract OS21D.
- Anderson, J.N., G.W. Fairchild and D.J. Velinsky. 2003. Watershed effects on water quality and primary producers in shallow ponds. North American Benthological Society Annual Meeting, Athens, GA. June, 2003. *Bulletin of the North American Benthological Society*. 20(1): 240.
- Hagan, E.E., C.A. Flinders, N.E. Saxe, D.J. Velinsky, D.F. Charles and R.L. Thomas. Ecological studies of algal communities in the Jackson River (Covington, VA): An assessment of stream health through multi-year nutrient and biomass monitoring. North American Benthological Society Annual Meeting, Athens, GA. June, 2003. *Bulletin of the North American Benthological Society*. 20(1): 382.
- Bushaw-Newton K.L, S. Doaty, D.A. Kreeger, & D.J. Velinsky. 2003. Bacterial utilization of dissolved organic matter derived from *Spartina alterniflora* and *Phragmites australis*. Presented at the 2003 Estuarine Research Federation, Seattle, WA.

- Bushaw-Newton K.L., D.A. Kreeger, S. Doaty & D.J. Velinsky. 2003. Relative effects of dissolved organic matter derived from *Spartina alterniflora* and *Phragmites australis* on secondary production. Ecological Society of America, Savannah, Georgia, August 2003.
- Moore, A., J.T. Ashley, H. Stapleton and D.J. Velinsky. 2002. Assessing Nonylphenol Contamination in Sediment from the Schuylkill and Delaware Rivers. Presented at the 23rd Society of Environmental Toxicology and Chemistry Annual Meeting, Salt Lake City, UT., November, 2002.
- Ashley, J.T.F., A. Moore, H. Stapleton and D.J. Velinsky. 2002. Sedimentary Nonylphenol Contamination in Delaware and Schuylkill Rivers. Presentation at the Annual American Water Resources Conference. November, 2002. Philadelphia, PA. November, 2002.
- Schultz, C.L., A.M. Buckley, J.M. Miller, D.J. Velinsky, T.J. Murphy, G. Foster, S. Hahn and M. Buchman. 2002. Contaminant Loads to the Tidal Anacostia River. Presented at the 23rd Society of Environmental Toxicology and Chemistry Annual Meeting, Salt Lake City, UT., November, 2002.
- Velinsky, D.J., J.T.F. Ashley, F. Pinkney, B.L. McGee and T.J. Norberg-King . 2002. Using the Sediment Quality Triad Approach to Assess Sedimentary Contamination in the Anacostia River, Washington, D.C. Presented at the 23rd Society of Environmental Toxicology and Chemistry Annual Meeting, Salt Lake City, UT., November, 2002.
- Velinsky, D.J., G.D. Foster, D.P. Kelso and P.D. Doelling Brown. 2002. Stable Isotope Variations and PCB Uptake in the Food Web of a Tidal Freshwater River. Presented at the Third International Conference on Applications of Stable Isotope Techniques to Ecological Studies; Northern Arizona University; Flagstaff, Arizona. April 2002.
- Turner, K., K.L. Bushaw-Newton and D.J. Velinsky. 2002. Photochemical modification and Bacterial utilization of dissolved organic matter-derived from *Phragmites australis* and *Spartina alterniflora*. NJ Sea Grant *Phragmites* Workshop, Vineland, NJ.
- Velinsky, D.J., C. A. Flinders, D. F. Charles, T.L. Bott, T. Gallagher, D. D. Hart and R. L. Thomas 2002. Periphyton dynamics in the Jackson River (VA): A Multi-Disciplinary Study. North American Benthological Society Annual Meeting, Pittsburgh, PA. June, 2002. *Bulletin of the North American Benthological Society*. 19(1): 287.
- Bushaw-Newton, K.L. and D.J. Velinsky. 2002. Leaf litter decomposition in three streams with small dams in the Brandywine River Watershed in SE Pennsylvania and NE Delaware. North American Benthological Society Annual Meeting, Pittsburgh, PA. June, 2002. *Bulletin of the North American Benthological Society*. 19(1): 221.
- Ashley, J.T.F., J.E. Baker, McGee, B.M., and D.J. Velinsky. 2001. Inventories and Sources of Hydrophobic Organic Contaminants in Surficial Sediments of the Chesapeake Bay and its Tributaries. Society of Environmental Toxicology and Chemistry; 22nd Annual Meeting, November, 2001.
- Doelling Brown, B.S. Crimmins, G.D. Foster, D.P. Kelso and D.J. Velinsky. 2001. Estimating the Trophic Transfer of PCBs from Fish from an Urban Tidal River. Society of Environmental Toxicology and Chemistry; 22nd Annual Meeting. November, 2001.

- Wilhelm, M., J.T.F. Ashley, K. L. Bushaw-Newton, G. Drames and D.J. Velinsky. 2001. Sedimentary Organic Contaminants in the Manatawny Creek, PA: Pre and Post Dam Removal Assessments. Society of Environmental Toxicology and Chemistry; 22nd Annual Meeting, November, 2001.
- Bushaw-Newton, K.L., J.T. Ashley, A.R. Boettner, J. DeAlteris, P. Kiry, D.A. Kreeger, D. Raksany and D.J. Velinsky. 2001. The Manatawny Creek Dam Removal: Biogeochemical Processes and Sediment Contaminants. North American Benthological Society Annual Meeting, La Crosse, WI. June, 2001. *Bulletin of the North American Benthological Society*. 18(1): 172.
- Velinsky, D.J., D. Kreeger, T. Johnson, T. Clason, J. DeAlteris, L. Fuselier, H. Hertler, B. Marshall, and P. Overbeck. 2001. Food Web Systematics in Urban Streams. North American Benthological Society Annual Meeting, La Crosse, WI. June, 2001. *Bulletin of the North American Benthological Society*. 18(1): 189.
- Flinders, C.A., D.D. Hart, D.F. Charles, D.J. Velinsky & R.L. Thomas. June 2001. River restoration via pulsed flows: effects of increased water velocity on benthic algae. Presented at the 2001 North American Benthological Society meeting, LaCrosse, WI. June 2-8, 2001. *Bulletin of the North American Benthological Society*. 18(1): 225
- Boettner, A.F., D.J. Velinsky, T. Fikslin, P. Kiry, J. DeAlteris, A.M. Compton, A. Wilson-Finelli. 2001. Water Quality Assessment of the Tidal Freshwater Schuylkill River, Philadelphia, PA.: Understanding Sources and Fate of Nutrients and Trace Metals in an Urban Stream. American Geophysical Union 2001 Spring Meeting; Boston, MA. *Transactions of the American Geophysical Union (EOS)* 82: S182
- Doelling Brown, B.S. Crimmins, D.P. Kelso, G.D. Foster, R.C. Jones and D.J. Velinsky. 2000. Potential PCB Impairment of Reproductive Success in White Perch from an Urban Tidal River. Society of Environmental Toxicology and Chemistry; 21st Annual Meeting. November, 2000.
- Riedel, G.F., A. Heyes, D.J. Velinsky, C.C. Gilmour and H. Enslin 2000. Bioavailability and Transport of Metals in Dredge Amended Marsh Sediments. Society of Environmental Toxicology and Chemistry; 21st Annual Meeting. November, 2000.
- Johnson, T.E., W.C. Hession, D. Charles, R. Horwitz, D. Kreeger, B. Marshall, J. Pizzuto, D.J. Velinsky 2001. An Interdisciplinary Study of the Ecological Benefits of Riparian Reforestation in Urban Watersheds. World Water & Environmental Resource Congress, May 20-24, Orlando, Florida
- Velinsky, D.J., Riedel, G.F., Foster, G.D. 1999. The effects of stormwater runoff on the Anacostia River, America's archetypical urban river. Society of Environmental Toxicology and Chemistry; 20th Annual Meeting. November, 1999.
- Riedel, G.F., Velinsky, D.J., Williams, S.A. and Wilson-Finelli, A. 1999. The effects of stormwater runoff on the Anacostia River, America's archetypical urban river: The influence of storm events on trace element concentrations. Society of Environmental Toxicology and Chemistry; 20th Annual Meeting. November, 1999.
- Doelling Brown, P., B.S. Crimmins, D. Kelso, G.D. Foster and D. J. Velinsky. 1999. Differential PCB bioaccumulation as a function of dietary composition in fish from an urban tidal river. Society of Environmental Toxicology and Chemistry; 20th Annual Meeting. November, 1999.

- Clason, T.A., D.F. Charles, W.C. Hession, D.J. Velinsky, and T.E. Johnson. 1999. Ecological benefits of riparian reforestation in urban watersheds: Evidence from diatom community analysis. 15th North American Diatom Symposium, Pingree Park Campus of Colorado State University, September, 1999.
- Velinsky, D.J., G.F. Riedel, and G.D. Foster. 1998. Effects of Stormwater Runoff on the Water Quality of the Tidal Anacostia River. Presented at *Federally Supported Science and The Chesapeake Bay Program*, Patuxent National Wildlife Center, December 9-10, 1998.
- Velinsky, D.J., W.C. Hession, D.A. Kreeger, H. Hertler, P. Kiry, L. Misuria, R.T. Field and K.R. Philipp. 1998. Mass Balance of Nitrogen and Phosphorus in Tidal Freshwater Wetlands of the Upper Delaware Estuary. Presented at *Concepts and Controversies in Tidal Marsh Ecology*, Vineland NJ, April 5, 1998.
- Foster, G.D., E.C. Roberts, B. Gruessner, and D.J. Velinsky 1997. Runoff geochemistry of organic contaminants in an urban watershed, the Anacostia River Basin, Washington, DC. Society of Environmental Toxicology Chemistry, 18th Annual Meeting, November 1997.
- Swarth, C.W., D.J. Velinsky, M.L. Fogel and Susan Ziegler 1997. Short-term variation in nitrogen cycling in wetlands. Estuarine Research Federation Biennial Meeting, October 12, 1997.
- Velinsky, D.J., T.L. Wade, B. Gammisch, and J. Cornwell. 1996. Sediment deposition and inventory of chemical contaminants in the tidal Anacostia River, Washington, D.C. Society of Environmental Toxicology Chemistry, 17th Annual Meeting, November 1996.
- Velinsky, D.J., J.C. Cummins, T.L. Wade. 1996. Multi-year monitoring of hydrophobic organic contaminants in fish tissue from the Anacostia and Potomac Rivers. Society of Environmental Toxicology Chemistry, 17th Annual Meeting, November 1996.
- Velinsky, D.J., C.W. Swarth, S. Ziegler, E.S. Perry, and M.L. Fogel. 1995. Transformations and cycling of nitrogen in a tidal freshwater wetland. First Annual Chesapeake Bay National Estuarine Research Reserve Meeting, Jug Bay Wetlands Sanctuary, Lothian, MD.
- Schwartz, S.S., D. Caraco, and D.J. Velinsky. 1994. Estimating urban nonpoint loads on the watershed scale. *Transactions of the American Geophysical Union (EOS)* 44: S228.
- Maher, I.L., G.D. Foster, and D.J. Velinsky. 1994. Effects of dredging on the concentrations of hydrophobic organic contaminants in the Anacostia River, Maryland. Division of Environmental Chemistry. American Chemical Society Meeting, Washington, D.C.
- Velinsky, D.J. Sources of trace metals and organic contaminants to the tidal Chesapeake Bay. 1994. Presented at the International Association for Great Lakes Research and Estuarine Research Federation 37th Conference, University of Windsor, Ontario.
- Velinsky, D.J., S. Schwartz, T.L. Wade, B.J. Presley, and J. Cornwell. 1993 Sources and fluxes of trace metals to the sediments of the tidal Anacostia River in Washington, D.C.. Presented at the Estuarine Research Federation's 12th International Conference, Hilton Head, SC.

- Zielger, S., D.J. Velinsky, C. Swarth, and M.L. Fogel. 1993. A nitrogen flux study in a freshwater tidal wetlands. Presented at the Estuarine Research Federation's 12th International Conference, Hilton Head, SC. (First Prize: Best Student Paper).
- Velinsky, D.J., T.L. Wade, E. Reinharz, C.E. Schlekot, and B.L. McGee. 1992. Sources of organic contaminants to the sediments of the Anacostia and Potomac rivers around Washington, D.C. *Transactions of the American Geophysical Union (EOS)* 73(14):164.
- Schlekat, C.E., B.L. McGee, D.M. Boward, and D.J. Velinsky. 1992. The sediment quality triad in Washington, D.C. Society of Environmental Toxicology Chemistry, 13th Annual Meeting, November, 1992.
- Velinsky, D.J., M.L. Fogel and D.J. Burdige. 1991. The isotopic distribution and diagenesis of nitrogen in coastal marine sediments. *Transactions of the American Geophysical Union (EOS)* 72(17): 152.
- Velinsky, D.J. and M.L. Fogel. 1990. Biogeochemistry of carbon and nitrogen isotopes in the marine environment. 200th American Chemical Society National Meeting, Division of Geochemistry, E.D. Goldberg Special Session, Washington, D.C. (*Invited*)
- Velinsky, D.J., M.L. Fogel, J.R. Pennock and J.H. Sharp, J.R. Pennock 1990. Biogeochemistry of nitrogen isotopes in the Delaware Estuary and coastal salt marshes. 199th American Chemical Society National Meeting, Division of Geochemistry, Boston, MA.
- Velinsky, D.J., M.L. Fogel and J.T. Todd. 1990. Isotopic distribution of dissolved and particulate nitrogen in anoxic waters. *EOS* 71(2): 152.
- Fogel, M.L., L.A. Cifuentes, D.J. Velinsky and J.H. Sharp. 1989. Carbon isotopic tracers of CO₂ availability in estuarine phytoplankton. Tenth Biennial International Estuarine Research Conference; Estuarine Research Federation; Baltimore, MD.
- Velinsky, D.J., J.H. Sharp, J.R. Pennock and M.L. Fogel. 1988. Isotopic variability of nitrate and ammonium in the lower Delaware Bay and coastal waters. *Transactions of the American Geophysical Union (EOS)* 69(44): 1103.
- Pennock, J.R., J.H. Sharp, J.L. Ludlam, D.J. Velinsky and M.L. Fogel. 1988. Isotopic fractionation of nitrogen during the uptake of ammonium and nitrate by *Skeletonema costatum*. *EOS* 69(44): 1098.
- Velinsky, D.J., M.L. Fogel, J.R. Pennock, and J.H. Sharp. 1988. Isotope tracers of biogeochemical processes in the Delaware Estuary. Third Chemical Congress of North America; American Chemical Society, Division of Geochemistry; Toronto, Canada. (*Invited*)
- Velinsky, D.J. and G.A. Cutter. 1988. The geochemistry of selenium in a coastal salt marsh. *Transactions of the American Geophysical Union (EOS)* 69(69): 379.
- Velinsky, D.J. and G.A. Cutter. 1987. Sulfur diagenesis in a coastal salt marsh. *Transactions of the American Geophysical Union (EOS)* 68(16): 458.

Velinsky, D.J. and G.A. Cutter. 1987. Seasonal redox diagenesis of selenium in a coastal salt marsh. Presented at the 193rd American Chemical Society National Meeting, Division of Geochemistry, Denver, CO.

Velinsky, D.J. 1987. Geochemistry of selenium in a coastal salt marsh. Dissertations Symposium on Chemical Oceanography (DISCO VII), East-West Center, Honolulu, Hawaii. (Invited)

Cutter, G.A., D.J. Velinsky, C.H. Culberson, and T.M. Church. 1985. The redox environment of the Chesapeake Bay. *Transactions of the American Geophysical Union (EOS)* 66(51): 1319.

Velinsky, D.J. and T.L. Wade. 1985. The atmospheric deposition of organic carbon from stations surrounding Chesapeake Bay. *Virginia Jour. Sci.* 36(2).

Wade, T.L. and D.J. Velinsky. 1985. Atmospheric deposition of organic material. Presented at the Southern Regional Geochemist Meeting, University of Texas, Port Aransas. October 1985.

Velinsky, D.J. and G.A. Cutter. 1985. Selenium diagenesis in a coastal salt marsh. *Transactions of the American Geophysical Union (EOS)* 66(51): 1329.

Velinsky, D.J. and T.L. Wade. 1982. Distribution of fatty acids and hydrocarbons during estuarine mixing. *Virginia Jour. Sci.* 33(3).

TECHNICAL REPORTS

Velinsky, D.J. and T. Wilson. 2021. Nutrient and Carbon Fluxes to Barnegat Bay from Marginal Saline Wetlands. Report to NJ DEP - NJSG Number 1003017-01/NJDEP No. SR18-004 (DU 860286S-9685)). PCER Report No. 2020-4. The Academy of Natural Sciences of Drexel University

Velinsky D.J., T. Quirk, J. Cornwell and M. Owens. 2015. Tidal Wetland Studies of Ecological Function: Denitrification in Barnegat Bay, NJ (Year 2; NJSG Number 4904-0007/ NJDEP No. SR13-014). PCER Report 2015-3. The Academy of Natural Sciences of Drexel University

Velinsky, D.J., T. Quirk, M. Piehler, and A. Smyth. 2013. Ecosystem Services of Tidal Wetlands in Barnegat Bay: Nitrogen removal. Final Report submitted to NJ Department of the Environment. PCER Report No. 13-06 The Academy of Natural Sciences of Drexel University, Philadelphia, PA.

Velinsky, D.J., C. Sommerfield and D. Charles. 2010. Vertical Profiles of Radioisotopes, Nutrients and Diatoms in Sediment Cores from the Tidal Murderkill River Basin: A Historical Analysis of Ecological Change and Sediment Accretion. PCER Report No. 10-01; Final Report submitted to Delaware Department of Natural Resources and Environmental Control (Dover, DE).

Velinsky, D.J., C. Sommerfield and D. Charles. 2010. Vertical profiles of radioisotopes, contaminants, nutrients and diatoms in sediment cores from the tidal Christina River Basin: A historical analysis. Report submitted to Dr. R. Greene (DNREC; Division of Water Resources; State of Delaware, Dover DE). Patrick Center Report 09-02, The Academy of Natural Sciences, Philadelphia, PA.

- Velinsky, D.J., C. Sommerfield, M. Enache, and D.Charles. 2010. Nutrient and Ecological Histories in Barnaget Bay, New Jersey. PCER Report No. 10-5; Final Report submitted to New Jersey Department of the Environment (Trenton, NJ).
- Velinsky, D.J., G.F. Riedel, and J. Ashely. 2008. Assessment of Water Quality of the Tidal Potomac River in Washington DC: Trace Metals and Organic Contaminants. Final Report (04g-05-WQD03 (WP04)). District of Columbia, Department of the Environment, Washington, DC. (PCER Report: 08-3).
- Riedel, G.F. and D.J. Velinsky. 2008. Tidal Basin and Ships Channel Toxics Monitoring. Final Report (05g-05-WQD01 (APPR05)). District of Columbia, Department of the Environment, Washington, DC. (PCER Report: 08-4).
- Velinsky, D.J., G.F. Riedel, and J. Ashely. 2008. Kenilworth/Beaver Dam Creek Toxics Monitoring. Final Report (05g-05-WQD02). District of Columbia, Department of the Environment, Washington, DC. (PCER Report: 08-5).
- Horwitz, R.J., P.F. Overbeck, J.Ashley, D.J.Velinsky and L. Zadoudeh. 2008. 2006 Monitoring Program for Chemical Contaminants in Fish from the State of New Jersey Third Year of Routine Monitoring Program FINAL REPORT (Report No. 07-04F), Submitted to State of New Jersey, Department of Environmental Protection (NJ DEP).
- Velinsky, D.J., J.T.F. Ashley and G.R.Riedel. 2007. Sediment Contaminants in the upper Tidal Potomac River; Washington, DC: Spatial and Temporal Trends. Final Report submitted to Department of the Environment, District of Columbia, Washington, DC.
- Horwitz, R.J., P.F. Overbeck, J.Ashley, D.J.Velinsky and L. Zadoudeh. 2006. 2004 Monitoring Program for Chemical Contaminants in Fish from the State of New Jersey Second Year of Routine Monitoring Program FINAL REPORT (Report No. 06-04F), Submitted to State of New Jersey, Department of Environmental Protection (NJ DEP).
- Velinsky, D.J., J.T.F. Ashley and G.R.Riedel. 2005. River Sediment Investigation near Poplar Point in the tidal Anacostia River, Washington, DC. Submitted to Ridolfi Engineers (Seattle, WA) and NOAA (Seattle, WA).
- Pinkney, A.E., B.L. McGee, P.C. McGown, D.J. Fisher, J.T.F. Ashley and D.J. Velinsky. 2004. Using the Sediment Quality Triad to Characterize Toxic Conditions in the Chesapeake Bay (2002): An assessment of tidal river segments in the Bohemia, Elk, Northeast, and Severn Rivers. Submitted by the US Fish and Wildlife Service, Chesapeake Bay Program Office to US EPA Chesapeake Bay Program, Annapolis, MD.
- Ashley, J., D.J. Velinsky, M. Wilhelm, J. Baker, D. Secor and M. Toaspern. 2003. Bioaccumulation of Polychlorinated Biphenyls in the Delaware River Estuary. Submitted to Delaware River Basin Commission.
- Srivastava P., D.A. Kreeger, T.E. Johnson and D.J. Velinsky. 2003. Non-point Source Pollution Assessment Techniques Curriculum Development. Submitted to Pennsylvania Coastal Zone Management Program (NOAA), Project Number: CZ1:02PD.12.

- Fairchild, G.W., D.J. Velinsky and J. Bowers. 2003. Small Pond Ecology and Management: The effects of nutrients on shallow-water ecosystems in Chester County, PA. Submitted to the State of Pennsylvania as part of a Growing Greener Project.
- Johnson, T.E., W.C. Hession, D.F. Charles, D.D. Hart, R.J. Horwitz, T.E. Johnson, D.A. Kreeger, B. Marshall, J.E. Pizzuto & D.J. Velinsky. 2002. Riparian Reforestation in an Urbanizing Watershed: Effects of Upland Conditions on Instream Ecological Benefits. Final Report to the U.S. EPA. STAR Program, Contract # R 825798-01-0.
- Velinsky, D.J. and J.T.F. Ashley. 2001. Deposition and Spatial Distribution of Sediment-bound Contaminants in the Anacostia River, District of Columbia. Report No. 01-30. Final Report Submitted to the District of Columbia. Patrick Center for Environmental Research, The Academy of Natural Sciences, Philadelphia, PA.
- Schultz, C. and D.J. Velinsky. 2001. Collection of Field Data for the Transport of Sediments in the Anacostia River. District of Columbia, Department of Health, Environmental Health Administration. Washington, DC.
- Bouchard, R., F. Acker, D. Charles, T. Nightengale, R. Horwitz, D.J. Velinsky, R. Davis, R. Thomas & J. McNair. 2001. 2000 Sabine River Studies for the Eastman Chemical Company, Texas Operations. Rept. No. 01-8F. Patrick Center for Environmental Research, ANSP, Philadelphia, PA. 249 pp.
- Bouchard, R., F. Acker, D. Charles, T. Nightengale, R. Horwitz, D.J. Velinsky, R. Davis & R. Thomas. 2001. Biological and Chemical Studies of the Guadalupe River, 2000. Rept. No. 01-10F. Patrick Center for Environmental Research, ANSP, Philadelphia, PA. 136 pp.
- Velinsky, D.J., S. Gibbons, P. May, and J. Ducnuigen. 2000. Seasonal Transformation and Fluxes of Nitrogen, Carbon and Phosphorus in a Tidal Freshwater Marsh. Final Report. Submitted to: USGS Patuxent Wildlife Research Center, Laurel, MD.
- Velinsky, D.J. and A. Potash. 1999. Atmospheric deposition of nitrogen and phosphorus in the Philadelphia region. Final Report. Submitted to the Environmental Associates, Academy of Natural Sciences, Philadelphia, PA.
- Horwitz, R.J., D.J. Velinsky, P. Overbeck and P. Kiry. 1999. Phase II assessment of total mercury concentrations in fishes from rivers, lakes and reservoirs of New Jersey. Report No. 99-7R. Prepared for NJ DEP, Office of Science and Research. June, 1999. Patrick Center for Environmental Research, The Academy of Natural Sciences, Philadelphia, PA.
- Velinsky, D.J. and J.E. Baker. 1999a. Relative importance of point and non-point sources of chemical contaminants to Chesapeake Bay. Chapter 8. In: *Chesapeake Bay Basin Toxics Loading and Release Inventory*. EPA 903-R-99-006/ CBP/TRS 222-100, May 1999, Chesapeake Bay Program, Annapolis, MD.
- Velinsky, D.J. and J.E. Baker. 1999b. Mass balance of chemical contaminants within Chesapeake Bay. Chapter 9. In: *Chesapeake Bay Basin Toxics Loading and Release Inventory*. EPA 903-R-99-006/ CBP/TRS 222-100, May 1999, Chesapeake Bay Program, Annapolis, MD.

- Velinsky, D.J. and A.M. Compton. 1999. Distribution and Cycling of Nitrogen and Phosphorus in the Jackson River, Covington, VA. Submitted to Westvaco Corporation, Covington, VA. Patrick Center for Environmental Research, The Academy of Natural Sciences, Philadelphia, PA.
- Velinsky, D.J., G.F. Riedel and G.Foster. 1999. Effects of Stormwater Runoff on the Water Quality of the Tidal Anacostia River. PCER Report #99-6. Submitted to U.S. EPA Region III. The Academy of Natural Sciences, Patrick Center for Environmental Research, Philadelphia, PA.
- Velinsky, D.J., D.A. Kreeger, W.C. Hession, R.T. Field and K.R. Philipp. 1998. Impact of Aquatic Vegetation on Water Quality of the Delaware River Estuary. ANSP Report #98-5. Prepared for the Delaware River Basin Commission. The Academy of Natural Sciences, Patrick Center for Environmental Research, Philadelphia, PA.
- Boyd, T. J., M. T. Montgomery, B. J. Spargo, R. B. Coffin, J. K. Steele, J. P. Pohlman, and D. Velinsky. 1999. Characterization of intrinsic bioremediation within the Philadelphia Naval Complex Reserve Basin. NRL technical report. NRL/PU/6115-99-374. Naval Research Laboratory, Washington, D.C.
- Hession, W.C and D.J. Velinsky. 1997. Nutrient and contaminant loads from the San Antonio and Guadalupe Rivers. ANSP Report 97-3. Academy of Natural Sciences, Philadelphia, PA, 54 pp.
- Gruessner, B., D.J. Velinsky, G.Foster, J. Scudlark, T.M. Church and R. Mason. 1997. Dissolved and particulate transport of chemical contaminants in the Northeast and Northwest Branches of the Anacostia River. ICPRB Report #97-2. Prepared for the DCRA, District of Columbia. Interstate Commission on the Potomac River Basin, Rockville, MD.
- Velinsky, D.J., M. Ziegenfuss and R. Horwitz. 1997. Characterization of the Aquatic Habitats and Resources near the Philadelphia Naval Complex Part II: Recommendations for Identification of Data Needs for Sediment Risk Management. Department of the Navy, Northern Division; Naval Facilities Engineering Command. Under contract to: EA Engineering, Science, and Technology, Hunt Valley, MD.
- Velinsky, D.J., T.L. Wade, B. Gammisch, and J. Cornwell. 1997. Sediment Deposition and Inventory of Chemical Contaminants in the Tidal Anacostia River, Washington, D.C. ICPRB Report #97-2. Interstate Commission on the Potomac River Basin, Rockville, MD.
- Velinsky, D.J. 1997. A Chemical Contaminant Mass Balance Framework for Chesapeake Bay. EPA 903-R-97-016, CBP/TRS 176/97. Chesapeake Bay Program Office, U.S. Environmental Protection Agency, Annapolis, MD.
- Velinsky, D.J., R. Horwitz, P. Kiry, P. Overbeck and M. Ziegenfuss. 1996. Characterization of the Aquatic Habitats and Resources near the Philadelphia Naval Complex. Report No. 96-18. The Academy of Natural Sciences of Philadelphia, Patrick Center for Environmental Research, Philadelphia, PA.
- Velinsky, D.J. and J.C. Cummins. 1996. Distribution of Chemical Contaminants in 1993-1995 Wild Fish Species in the District of Columbia. ICPRB Report # 96-1. Interstate Commission on the Potomac River Basin, Rockville, MD.

Velinsky, D.J. 1994. Loading estimates for specific chemical contaminants to Chesapeake Bay. Chesapeake Bay Environmental Effects Studies: Toxics Research Program, 1993 Workshop Report, Virginia and Maryland Sea Grant College Programs, VSG-94-14 and UM-SG-TS-94-03.

Velinsky, D.J. and J.C. Cummins. 1994. Distribution of chemical contaminants in wild fish species in the Washington, D.C. area. ICPRB Report # 94-1. Interstate Commission on the Potomac River Basin, Rockville, MD.

Velinsky, D.J., J. Cornwell, and G. Foster. 1994. Effects of dredging on the water quality of the Anacostia River. ICPRB Report # 94-2; Interstate Commission on the Potomac River Basin, Rockville, MD

Velinsky, D.J., C.H. Haywood, T.L. Wade, and E. Reinharz. 1992. Sediment contamination studies of the Potomac and Anacostia Rivers around the District of Columbia. Interstate Commission on the Potomac River Basin Report # 92-2. ICPRB, Rockville, MD.

Pang, T.K., D.J. Velinsky, S. Schwartz, and H.C. Haywood. 1990. The Potomac River Model: Data Report. Interstate Commission on the Potomac River Basin Report # 90-9. ICPRB, Rockville, MD.

PUBLIC OUTREACH

Multiple interviews for WHYY, Inquirer, Fox News and others (2016-2021)

What's In the Water: Article in *Boston Herald American*; 1978

Mercury in Fish from the Local Area; Article in *Philadelphia Inquirer*; 2003

Remains of the Monitor Faces a Corrosive Enemy: Article in *Philadelphia Inquirer*; 2005

Muck tells a story for scientists to read. Article in *Wilmington News Journal*, November 4, 2007.

Interviews for articles in *Time*, *NPR*, *Philadelphia Inquirer*, *Metro* Newspaper (Philly) and others.

Lectures for public including ANSP's Town Square; High School Teacher Workshops, Har Zion Day School; Friends Central School (2001-2019).

Quoted in article in *The Press of Atlantic City* "EPA Climate Change Study to target the Delaware Estuary", June 30, 2008.

Quoted in article in *The Philadelphia Inquirer*, December 7, 2009: "Assessing Delaware River with dynamic diatoms" by Tom Avril.

Introduced the Philadelphia movie premiere of "The End of the Line" a film shown at the Sundance Film Festival focusing on the depletion of fish in the world's oceans (June 2009).

Moderated Town Square at the Academy of Natural Sciences entitled: "*Health Care, Food Safety, and Antibiotics*:" Sponsored by the The Pew Charitable Trusts (July 2009)

Moderated Town Square at the Academy of Natural Sciences entitled: “*Marcellus Shale: The Science and The Policy*”. Sponsored by the Academy of Natural Science (April, 20, 2010).

Science on Tap: The Slippery Facts about Oil Spills at the National Mechanics Pub (May 25, 2010).

Quoted in article in *The Philadelphia Inquirer*, August 16, 2010; “What will gobble the spilled oil” by Faye Flam

Quoted in article in *The Philadelphia Inquirer*, October 12, 2010; “Study sees threat in shale gas drilling” by Sandy Bauers (front page, above the fold!)

Interviewed by WHYY, KYW and AP for articles about the Marcellus Shale and Climate Change (2010-2011).

Interviewed for video about the Academy and research (D. Keller); video hosted on Vermont Public Radio (Fall, 2010)

Philadelphia Magazine, Was Al Gore Right? How to Buy a Shore House Now. May 24, 2015.

Op-ed; Philadelphia Inquirer (September 23, 2015); Papal Visit brings Climate Change Home

INVITED SEMINARS

2018 Friends Central School, Wynnewood, PA
Sponsor: Emma Velinsky

2017 Drexel University; Chemistry Department
Sponsor: Dr. Fraser Flemings

2016 New Jersey Institute of Technology, Newark NJ
Sponsor: Dr. Michel Boufadel

Stockton University; Department of Geosciences
Sponsor: Dr. Susanne Moskalski

Pinelands Commission of New Jersey
Sponsor: Dr. John Bunnell

2012 Chinese Academy of Science; Geographical Institute; Beijing, China
Sponsor: Dr. Li

2011 University of Pennsylvania, Perelman School of Medicine/Center for Excellence in Environmental Toxicology
Sponsor: Dr. Trevor Penning

2010 Villanova University, Department of Environmental Sciences,
Sponsor: Dr. Nat Weston

- 2009 St. Josephs University, Department of Biology, 8th McGroddy Science Lecture Series.
Sponsor: Dr. Jonathan Fingerut
- US Environmental Protection Agency, Region III. Water Resources Group.
Sponsor: Mr. Thomas Belton
- 2008 Zhejiang Ocean University at 2008 Zhoushan National Symposium on Mariculture, Zhejiang, China
- Academy of Natural Sciences; Climate Change in the Delaware Estuary
Presented at workshop hosted by Academy and Partnership for the Delaware Estuary
- 2007 Philadelphia University, Department of Biology
Sponsor: Dr. Jeff Ashley
- University of Pennsylvania, Department of Biology, EcoLunch
Sponsor: Ms. Emma Aronson
- 2006 American University. Department of Biology,
Sponsor: Dr. Karen Bushaw-Newton
- Pennsylvania State University, York. Department of Biology
Sponsor: Dr. Matt Hotch
- 2005 American Philosophical Society, Town Square
Sponsor: Dr. D. James Baker
- Philadelphia Water Department; Environmental Section
Sponsor: Ms. Paula Connlly
- 2003 George Mason University, Department of Chemistry
Sponsor: Dr. Gregory Foster
- 2002 Johns Hopkins University, Advanced Academic Graduate Program; Environmental Science and Policy Program. Class Lecture
Sponsor: Mr. Chris Swarth
- University of Pennsylvania, Department of Biology.
Sponsor: Dr. Peter Petratis
- 2000 Drexel University, School of Environmental Science, Engineering, and Policy
Sponsor: Dr. Clarie Welty
- Patuxent Wildlife Research Center, United States Geological Survey
Sponsor: Dr. Richard Hammerschlag

- Philadelphia University, Department of Environmental Science
Sponsor: Dr. William Brendley, Jr.
- 1997 The American University, Department of Biology
Sponsor: Dr. W.C. Banta
- 1996 Drexel University, School of Environmental Science, Engineering, and Policy
Sponsor: Dr. Clarie Welty
- 1995 Sigma XI Chapter, The Academy of Natural Sciences
Sponsor: Dr. Dominique Didier Davit
- 1993 Lehigh University, Department of Earth and Environmental Sciences
Sponsor: Dr. Gray Bebout
- 1992 National Oceanic and Atmospheric Administration, NOS/ORCA
Sponsor: Dr. Nathalie Valette-Silver
- Smithsonian Institution, Smithsonian Environmental Research Center
Sponsor: Dr. David Correll
- University of South Alabama, Department of Marine Sciences
Sponsor: Dr. Erich Mueller
- 1991 University of Toronto, Department of Geology
Sponsor: Dr. Jeff Fawcett
- Florida International University; Department of Chemistry
Sponsor: Dr. William Cooper
- University of Uppsala, Department of Limnology
Sponsor: Ms. Katarina Vrede/ Dr. Russell Bell
- The Academy of Natural Sciences, Division of Environmental Research;
Sponsor: Dr. John Sherman
- 1990 Old Dominion University, Department of Oceanography;
Sponsor: Dr. David J. Burdige
- American Chemical Society, Division of Geochemistry, "Progress in Marine
Chemistry", Special session in honor of Dr. E. D. Goldberg;
Sponsor: Dr. Thomas M. Church
- Carnegie Institution of Washington, Geophysical Laboratory;
Sponsor: Dr. Francis Boyd
- 1989 Chalmers University of Technology and University of Goteborg,
Department of Analytical and Marine Chemistry;
Sponsor: Dr. David Dyrssen

University of Florida, Department of Fisheries and Aquaculture;
Sponsor: Dr. Claire Schelske

1988 Oak Ridge National Laboratory, Environmental Sciences Division;
Sponsor: Dr. Patrick J. Mulholland

United States Geological Survey, Water Resources Division;
Sponsor: Dr. Carol Kendall

LEADERSHIP ACTIVITIES

As Vice President for the Center of Academy Science (CAS), from 2012 to 2021, at the Academy of Natural Sciences of Drexel University and Department Head, Department of Biodiversity, Earth and Environmental Sciences (BEES) I have worked directly or with a team in these areas.

Academy Management, Finance and Budget:

- Work with President and senior leaders of Academy for overall Academy management
- CAS Annual budget ~\$5-6M varies by ~±\$1M
- Current endowment and bequests to science group ~ \$35.5M
- Work with Museum's development team to align donors with Science and Museum research goals.
- New Department gifts include (direct or assisted in obtaining over the years):
 - Anonymous Donor-1 for staff support (\$2.5M)
 - McLean Endowment for student research (\$500,000)
 - Anonymous donor-2 for environmental research (\$50,000)
 - Bales Endowment of Co-Op support (~\$100k)
 - Various foundation proposals (>\$200,000)

Center for Academy Science Development

- Maintained integration of three units into CAS (Patrick Center, Systematics/Evolution, and Collections and library/archives)
- Developed and implemented CAS Strategic Management Plan
- Encouraged cross-disciplinary research and integration with BEES and other Drexel departments
- Enhanced research direction into broader human impacts
- Developed public engagement and outreach for CAS with Academy (i.e., Town Squares; Academy Conversations, Research Day)

BEES Finance and Budget:

- Annual budget ~\$3.5M varies by ~±\$0.5M (for BEES)
- Work with Drexel IA on various proposals including MacArthur Fellowship Proposal (\$100M)
- Interface between Academy and Drexel budget process

BEES Faculty Relations:

- Assisted transition in the transition in teaching remotely for faculty (weekly/quarterly meetings COVID)
- Increased faculty collaboration through creating a common vision, seed grants, and more
- Oversaw and developed Department By-Laws and other department policies
- Oversee 14 faculty, 5 support staff, 2 postdocs, 140 undergraduate and 40 graduate students

- Generated 5 new faculty positions in 4 years (all early to mid-career preeminent scientists with large robust start-up packages; increased faculty diversity)
- Oversee all faculty hiring, promotion and tenure, performance reviews, performance
- Established specific research goals for scientist and faculty, and performance improvement plans for those who do not meet those goals
- Improvement plans, and termination. Mentor pre-tenured faculty
- Resolve personnel disputes; respond to grievances, disciplinary actions and legal issues.

Academic Programs:

- Helped to form, develop and integrate scientists and curators from Academy into Drexel's Academic environment
- Organized and oversaw the launch of two new majors in department
- Organized and initiated strategic planning process for department
- Stewarded and finalized departments Performance Activity Review (2017 PAR)
- Provide conflict resolution between faculty staff and students (and others)
- Developed plans to better evaluate faculty teaching and potential overlap of course material
- Developed BEES Summer Camp (3 locations) for student outreach and enrollment

External Relations:

- Coordinated site to increase visibility of research for both CAS and BEES
- Worked with Communications to track outreach in social and traditional media
- Coordinate outreach participation in events like Earth Day, Dinofest, etc at Academy
- Contribute to yearly annual report for Academy

Academy Board Relations:

- Work directly with Academy Board of Trustees (includes President and CFO of Drexel)
- Staff coordinator for Science Committee of Academy Board (currently being reformed)
- Maintain an active relationship with all board members
- Report on CAS and BEES departmental activities at monthly board meetings
- Member of the Academy strategic planning team 2012-2018 (completed)
- Member of the Academy strategic planning team 2018-2022 (completed; never stops)
- Developed quarterly and annual activity database for CAS (i.e., CAS Dashboard)

University and College Initiatives:

- Serve on the two University wide Strategic Planning Committees including that for Research and Sponsored programs
- Interfaced with SVP for Facilities in the development for departmental space for BEES
- In College of Arts and Sciences, initiated broader engagement across departments for the environment (Engaging the Environment).
- Promotion and Review Committee for CoAS department heads

Student Relations:

- Oversee ~40 graduate students (27 PhD) and started Curatorial Assistantship for Academy
- Oversee ~150 undergraduate students' performance and worked with Academy Director
- Oversee departmental committees, retreats, student mixers, brownbag lunch seminars, and student grants and awards
- Meet with students who have issues or concern whether personal or professional; maintain open door policy