

CURRICULUM VITAE

Thomas E. Jordan

Smithsonian Environmental Research Center
647 Contees Wharf Road, P.O. Box 28
Edgewater, Maryland 21037
(443) 482-2209

March 2008

Education:

- 1980 Ph.D. Biology, Boston University Marine Program, Woods Hole, Massachusetts.
- 1974 B.S. Biology, Cum Laude and with honors, Bucknell University, Lewisburg, Pennsylvania.

Research Positions:

- 1993- Present Chemical Ecologist at the Smithsonian Environmental Research Center, investigating transport and transformation of nitrogen and phosphorus in ecosystems.
- 1983-93 Research Associate at the Smithsonian Environmental Research Center, investigating nutrient dynamics of the Rhode River watershed and estuary, nutrient discharges from watersheds of Chesapeake Bay, and denitrification in a riparian forest.
- 1982-83 Smithsonian Postdoctoral Fellow: research on the effects of plant litter on nutrient cycling in a tidal marsh.
- 1980-82 Postdoctoral Researcher at the Smithsonian Institution Chesapeake Bay Center for Environmental Studies investigating nutrient dynamics of the Rhode River watershed and estuary.

Graduate Research:

- 1976-80 Boston University doctoral thesis research on the role of mussels in the nitrogen cycle of a salt marsh.
- 1975 Boston University research assistant for salt marsh research project under direction of Ivan Valiela and John Teal.

Undergraduate Research:

1973-74 Bucknell University honors thesis on the effects of a detritivore snail on mineralization of leaf litter. Also, summer research assistant studying water chemistry of a reservoir and the effects of power plant coolant effluent on freshwater stream chemistry.

Teaching:

2006- Present Special Member of Graduate Faculty, University of Maryland, College Park, MD.

2005- Present Affiliate Professor, Department of Environmental Science and Policy, George Mason University, Fairfax, VA 22030.

2005 Assisted with teaching and coordination of a continuing education course for nutrient management consultants, sponsored by the Maryland Department of Agriculture

2004- Present Co-advisor of doctoral student, George Mason University, Department of Environmental Science and Policy.

2001- Present Member of doctoral thesis committees, University of Maryland, Marine Estuarine Environmental Sciences Program

1997-00 Member of master's committee, George Mason University, Dept. of Biology.

1996-01 Advisor for Smithsonian Postdoctoral Fellows, Dr. William Parsons and Dr. Kelly Smith, and Dr. Vladimir Samarkin, Smithsonian Environmental Research Center.

1996-99 Member of master's committee, Towson State University, Dept. of Biology.

1986 Member of doctoral thesis committee, University of Maryland, Dept. of Geography.

1982- Present Advisor for 35 Smithsonian Work/Learn Interns (about 2 per year recently), Smithsonian Environmental Research Center.

Student Teaching:

1976 Boston University Marine Program Teaching Assistant in Marine Microphytes and Environmental Physiology.

- 1974 Boston University Laboratory Assistant in Introductory Biology and Discussion Section Instructor in Environmental Science.
- 1973-74 Bucknell University, Laboratory Assistant in Inorganic Chemistry, Analytical Chemistry, and Modern Physics.

Grants and Fellowships Received:

Smithsonian Institution Endowment: Sprague Fund: Sources and Fates of Nitrogen, Phosphorus, and Trace Elements Discharged from Watersheds (\$49,500; 1/1/2007-12/31/2007) Principal Investigator: T. E. Jordan, Co-Investigators: G. R. Riedel, M. L. Fogel.

USDA CREES: Effects of agricultural conservation practices on nitrate losses from croplands of the Choptank River basin. (\$492,968; 9/15/05-9/14/08) Principal Investigator: T. R. Fisher, Co-Investigators: T. E. Jordan, K. W. Staver, M. L. Fogel, A. J. Sutton.

USDA CEAP: Assessment of natural resource conservation practice effectiveness within the Choptank River watershed. (\$299,708 total, \$5,000 to SERC; 9/2004-8/2007) Project Co-directors: L. McConnell, G. McCarty.

EPA 2002-STAR-B1: A watershed classification system for improved monitoring and restoration: Landscape indicators of watershed impairment. (\$856,819; 3/2004-2/2007) Principal Investigator: S. D. Prince, Co-Investigators: S. J. Goetz, D. E. Weller, T. E. Jordan.

EPA 2002-STAR-M1: A shallow-water coastal habitat model for regional scale evaluation of management decisions in the Virginian Province (\$748,749; 6/2003-5/2006) Principal Investigator: C. L. Gallegos, Co-Investigators: T. E. Jordan, J. P. Megonigal, P. J. Neale, D. E. Weller.

NSF: DEB-0235884: Collaborative Research: Across the salinity transition—Changes in N and P biogeochemistry along an estuarine salinity gradient (\$478,092 to SERC, 9/2002-8/2006) Principal Investigator: T. E. Jordan, Co-Investigators: W. R. Boynton, J. C. Cornwell.

NOAA Coastal Oceans Program: Data synthesis, model comparisons, and a risk-based decision support system for managing coastal systems exposed to multiple stressors. (\$215,678 to SERC, 1/03-12/06) SERC Co-Investigators: D. E. Weller and T. E. Jordan, Lead PI: D. L. Breitburg, Other Co-Investigators: S. M. Bartell, G. F. Riedel, W-S. Lung, D. King, L. Wainger

EPA: Ecological and Socioeconomic Indicators for Integrated Assessment of Aquatic Ecosystems of the Atlantic Slope (\$6,000,000; 3/01-2/05). Lead Principal Investigator: Robert P. Brooks (Pennsylvania State University), SERC Co-Investigators: D. F. Whigham, C. L. Gallegos, D. E. Weller, A. H. Hines, T. E. Jordan, P. P. Marra; plus a total of 11 Co-

Investigators from these institutions: Pennsylvania State University, Virginia Institute of Marine Sciences, East Carolina University, Environmental Law Institute, FTN Associates.

EPA: Rhode River CISNet: Estuarine Optical Properties as an Integrative Response to Natural and Anthropogenic Stressors (\$510,180, 10/98-9/02). Principal Investigator C. L. Gallegos; Co-Principal Investigators: T. E. Jordan, P. J. Neale, D. L. Correll.

EPA: Nanticoke Wetlands Assessment Study (\$224,994, 1/99-12/05). Principal Investigator: D. F. Whigham; Co-Principal Investigators: T. E. Jordan and D.E. Weller.

Charles County, MD. Mattawoman Creek Watershed: Nutrient and Sediment Dynamics (\$310,000, 1997-2000) Principal Investigators D.L. Correll, T. E. Jordan, and D.E. Weller.

USDA National Research Initiative Competitive Grants Program, Production of nitrogen gases in riparian forests receiving cropland discharges (\$246,000, 1995-1998) Principal Investigator: T. E. Jordan, Investigators: D. L. Correll, and D. E. Weller.

NOAA, Coastal Oceans Program, The importance of understanding ecological complexity to predicting effects of multiple stressors on coastal systems. (\$755,255 to SERC, 1995-2002) Principal Investigators: D. L. Breitburg and J. G. Sanders (ANSERC, Academy of Natural Sciences Estuarine Research Center); Investigators: R. W. Osman, C. C. Gilmour, K. G. Sellner, G. F. Riedel, G. R. Abbe (ANSERC); S. M. Bartell (SENEC Oak Ridge, Inc.); I. Strand, D. Lipton (Univ. Maryland); R. E. Magnien (Maryland Dept. of Natural Resources); S. Brandt (SUNY Buffalo); S. Seitzinger (Rutgers Univ.); D. L. Correll, T. E. Jordan, D. E. Weller (SERC), W. Lung (Univ. Virginia), G. McManus (Univ. Connecticut).

Cooperative Grant from EPA/Chesapeake Bay Program, (\$150,000 1994-1997); and National Resources Conservation Service, (\$75,000 for 1995-1996 and \$25,000 for 1996-1997); Using constructed wetlands for control of agricultural runoff, Principal Investigators: D. L. Correll, T. E. Jordan, D. E. Weller, D. F. Whigham).

NSF Grant, DEB-93-17968, Relating nutrient discharges to geology and landscape pattern in the Chesapeake Bay watershed (\$1,000,000, 1994-1999) Principal Investigators: D. L. Correll, T. E. Jordan, D. E. Weller.

NSF Grant, DEB-92-06811, Factors controlling nutrient and sediment discharges from the watershed of Chesapeake Bay (\$199,902, 1992-1994) Principal Investigators: D. L. Correll, T. E. Jordan, D. E. Weller.

State of Maryland, Governor's Council on Chesapeake Bay Research Fund, Comparative study of nutrient and sediment interception in Chesapeake Bay riparian zones (\$247,263, 1990-1993), Principal Investigators: D. L. Correll, T. E. Jordan, D. E. Weller).

NSF Grant, BSR-89-17038, Denitrification and the fate of nitrogen inputs to a riparian forest receiving agricultural runoff (\$599,741, 1990-1994) Principal Investigators: D. L. Correll, T. E. Jordan, D. E. Weller.

NSF Grant, BSR-89-05219, Factors controlling nutrient and sediment discharges from the watershed of Chesapeake Bay (\$730,169, 1989-1992) Principal Investigators: D. L. Correll, T. E. Jordan, D. Thompson, D. E. Weller.

NSF Grant BSR-86-15902-01, Nutrient Transformations Along Hydrologic Gradients in a Watershed and Estuary (\$169,909, 1988-1989) Principal Investigators: D. L. Correll, T. E. Jordan, D. Thompson, D. E. Weller.

NSF Grant BSR-86-15902, Nutrient Dynamics of the Rhode River Watershed and Estuary (\$199,919, 1987-1988), Principal Investigators: D. L. Correll, A. H. Hines, T. E. Jordan, D. E. Weller, D. F. Whigham.

NSF Grant BSR-83-16948, Nutrient Dynamics of the Rhode River System (\$906,763, 1984-1987), Principal Investigators: D. L. Correll, A. H. Hines, T. E. Jordan, J. W. Pierce, R. Ulanowicz, D. F. Whigham.

Smithsonian Postdoctoral Fellowship (1982-1983).

NSF Grant DEB-82-07212, Nutrient Dynamics of the Rhode River Ecosystem (\$199,997, 1982-1984) Principal Investigators: D. L. Correll, T. E. Jordan, P. Rublee, and D. F. Whigham.

Friendship Fund Fellowship, Boston University (1977-1979).

Service to Smithsonian Environmental Research Center (SERC):

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| 2003-04 | Head of committee to revise SERC strategic plan and lead editor of the new SERC strategic plan. |
| 2003-04 | SERC representative in workshops to develop a new strategic plan for science at the Smithsonian Institution. |
| 2004-
Present | Member of SERC Land Use Planning Committee |
| 2002-
Present | Director of SERC Analytical Services |
| 1998 | Lead editor and author of a general brochure on SERC |

- 1997-
Present Member of review committee for Smithsonian Institution Seidell Fund
- 1997-02 Prepared SERC annual contributions to Smithsonian Year and the Annals of the Smithsonian Institution
- 1997-
Present Chair of the SERC Science Committee
- 1997-
Present Member of the SERC Education Committee
- 1994-96 Delegate to the Smithsonian Congress of Scholars, research advocacy group.

Service to Professional Organizations:

- 2006-
Present President, Association of Ecosystem Research Centers
- 2004-
Present SERC representative to the Consortium of Universities for the Advancement of Hydrologic Science, Incorporated
- 2005-06 President Elect, Association of Ecosystem Research Centers
- 2002-04
Centers Member at Large, Board of Directors, Association of Ecosystem Research

Service on Proposal Review Panels:

- 2004 Environmental Protection Agency Fellowships
- 2002 National Science Foundation Ecosystems Program
- 2000 Agency for International Development
- 1987 National Undersea Research Program
- 1987 Agency for International Development

Service on Scientific Advisory Board:

- 2004-05 EPA-STAR-funded Consortium of Estuarine Ecoindicator Research – Gulf of Mexico Program, Ocean Springs, Mississippi.

Recent reviewing:

Grant proposals for: Israel Science Foundation, National Environment Research Council, National Institutes for Water Resources, National Oceanic and Atmospheric Administration, National Science Foundation, New York Sea Grant, U. S. Agency for International Development, and U. S. Department of Agriculture.

Journal articles for: Biogeochemistry; Biogeosciences, Biological Bulletin; Canadian Journal of Fisheries and Aquatic Science; Ecosystems; Environmental Geochemistry and Health; Environmental Management; Environmental Science & Technology; Estuaries; Estuarine, Coastal and Shelf Science; Hydrobiologia; Journal of Coastal Research; Journal of Hydrology; Journal of the American Water Resources Association; Limnology and Oceanography; Marine Environmental Research; Plant and Soil; Trends in Ecology and Evolution; Water Resources Research; and Wetlands Ecology and Management.

Memberships in Professional Organizations:

American Society of Limnology and Oceanography

Estuarine Research Federation

American Geophysical Union

Selected Papers Presented at Recent Conferences:

2007 Jordan, T. E., M. L. Fogel, T. R. Fisher, A. J. Sutton. Nitrogen budgets for agricultural watersheds and the nitrogen and oxygen isotope abundance in discharged nitrate. 19th Biennial Conference of the Estuarine Research Federation, Providence, Rhode Island, November 2007.

Russell, M., D. E. Weller, and T. E. Jordan. Nitrogen to Phosphorus Ratios in Anthropogenic Inputs and Watershed Discharges to Chesapeake Bay. 19th Biennial Conference of the Estuarine Research Federation, Providence, Rhode Island, November 2007.

Fisher, T. R., Gustafson, A. B., Sutton, A. J., Kana, T., Jordan, T. E., Staver, K. W., and Fogel, M. L. Reduction of NO₃ losses from crop fields associated with controlled drainage structures in the Choptank River basin. National Center for Environmental Research 2nd National Conference on Ecosystem Restoration, Kansas City, Missouri, April 2007.

- Fisher, T. R., A. B. Gustafson, A. Sutton, T. Kana, G. McCarty, K. Staver, T. E. Jordan, M. Fogel. Groundwater denitrification of agricultural nitrate. American Society of Limnology and Oceanography Aquatic Sciences Meeting, Santa Fe, NM, February 2007.
- Kim, H., X. Li, C. L. Gallegos, D. E. Weller, T. E. Jordan. A regional comparison study on the ecological response of subestuarine ecosystems to different watershed loadings in the Chesapeake Bay: A modeling study. American Society of Limnology and Oceanography Aquatic Sciences Meeting, Santa Fe, NM, February 2007.
- Weller, D. E., M. E. Baker, R. S. King, and T. E. Jordan. Progress and challenges in demonstrating riparian buffer effects on nutrient discharges from whole catchments. International Association of Landscape Ecology, The Netherlands, 2007.
- Fisher, T. R., T. E. Jordan, K. W. Staver, M. L. Fogel, A. J. Sutton, and A. B. Gustafson. Assessment of conservation practices for control of agricultural nitrate losses in the Choptank basin. USDA-CSREES National Water Conference, Savannah, GA, January 2007.
- 2006 Jordan, T. E., M. L. Fogel, A. D. Standbridge, T. R. Fisher, A. J. Sutton. Using stable isotopes of N and O in nitrate as indicators of denitrification in agricultural watersheds. American Geophysical Union, Joint Assembly, Baltimore, Maryland, May 2006.
- Russell, M., D. E. Weller, T. E. Jordan. Net anthropogenic inputs of phosphorus and nitrogen in Chesapeake Bay watersheds: Landscape indicators of watershed impairment. American Water Resources Association Annual Conference, Baltimore, Maryland, November 2006.
- Fisher, T., T. E. Jordan, K. W. Staver, M. L. Fogel. Assessment of conservation practices for control of agricultural NO₃ losses in the Choptank Basin. American Water Resources Association Annual Conference, Baltimore, Maryland, November 2006.
- Boomer, K., D. E. Weller, T. E. Jordan. Developing TMDLs: Evaluation of event-based stream sediment loads predicted from USLE-based watershed models. American Water Resources Association Annual Conference, Baltimore, Maryland, November 2006.
- Weller, D. E., M. N. Snyder, D. F. Whigham, A. D. Jacobs, and T. E. Jordan. Landscape indicators of wetland condition in the Nanticoke River watershed of Maryland and Delaware. American Water Resources Association Annual Conference, Baltimore, Maryland, November 2006.
- 2005 Jordan, T. E., J. C. Cornwell, J. T. Anderson, and W. R. Boynton. Do sea salts or sulfate mobilize iron-bound phosphate from estuarine sediments? 18th Biennial Conference of the Estuarine Research Federation, Norfolk, Virginia, October 2005.

- 2004 Jordan, T. E., J. C. Cornwell, and W. R. Boynton. Changes in phosphorus biogeochemistry across the transition from freshwater to saltwater. American Society of Limnology and Oceanography, Savannah, Georgia, June 2004.
- Jordan, T. E., J. C. Cornwell, and W. R. Boynton. Changes in phosphorus biogeochemistry across the transition from freshwater to saltwater. 8th International Estuarine Biogeochemistry Symposium, Sponsored by the National Science Foundation, Chesapeake Biological Laboratory, Solomons, Maryland, May 2004.
- 2003 Jordan, T. E., M. A. Pittek, R. P. Suzch, D. F. Whigham, and D. E. Weller. Comparing functional assessments and measurements of nitrogen processing in wetlands. The Sixth Wetlands Workshop, Environmental Protection Agency, Atlantic City, New Jersey, October 2003.
- Jordan, T. E., J. C. Cornwell, and W. R. Boynton. Changes in phosphorus biogeochemistry across the transition from freshwater to saltwater. 17th Biennial Conference of the Estuarine Research Federation, Seattle, Washington, September 2003.
- 2002 Jordan, T. E., D. E. Weller, and D. L. Correll. Sources of nutrient inputs to the Patuxent River estuary. NOAA Coastal Oceans Program, COASTES management workshop, Edgewater, Maryland, September 2002.
- Jordan, T. E., D. E. Weller, and D. L. Correll. Trading cropland for developed land: Effects on non-point source discharges of nutrients. Invited Paper, American Geophysical Union meeting, Washington, D.C., May 2002.
- Jordan, T. E., D. E. Weller, and D. L. Correll. Factors controlling nutrient flow from land to sea. Invited Paper, NSF-LTER Symposium, Albuquerque, NM, April 2002.
- 2001 Jordan, T. E., D. E. Weller, and D. L. Correll. Nutrient discharges from watersheds covering a few hectares to hundreds of square kilometers. Invited Paper, Maryland Water Monitoring Council, Linthicum, Maryland, November 2001.
- 1999 Jordan, T. E., D. E. Weller, and D. L. Correll. Relating Watershed Discharges and Anthropogenic Inputs of Nitrogen. Invited Paper, American Society of Limnology and Oceanography, Aquatic Sciences Meeting, Santa Fe, NM, February 1999.
- 1998 Jordan, T. E., D. E. Weller, D. L. Correll, Z-J Liu, and D. F. Whigham. Discharges of nutrients from the Chesapeake Bay watershed. Invited Paper, Ecological Society of America, 83rd Annual Meeting, Baltimore, MD, August 1998.
- 1997 Jordan, T. E., D. F. Whigham, K. Hofmockel, and N. Gerber. (Presented by D. F. Whigham) Restored wetlands in crop fields control nutrient runoff. Conference on

Nutrient Cycling and Retention in Natural and Constructed Wetlands. Trebon, Czech Republic, September 1997.

- 1996 Jordan, T. E. and D. W. Whigham. Effects of constructed wetlands on nutrient discharges from agricultural watersheds. Fall Meeting of Maryland Section of the American Water Resources Association, SERC, Edgewater, Maryland, October 12, 1996.

Jordan, T. E., D. E. Weller, and D. L. Correll. Effects of hydrology and land use on discharges of nutrients from Piedmont and Coastal Plain watersheds of Chesapeake Bay. Annual Meeting of the Ecological Society of America, Providence, R. I., August 1996.

Workshop Participation:

- 2007 USDA Agricultural Research Service and Natural Resource Conservation Service, Conservation Effects Assessment Program, Presentation: Multi-Scale Assessment of Wetland Ecosystem Services in Agricultural Landscapes, Beltsville, MD, December 2007.

Chesapeake Bay Program, Quantifying the Role of Wetlands in Achieving Nutrient and Sediment Reductions in Chesapeake Bay, Presentation: Nutrient removal by restored wetlands in agricultural watersheds, Annapolis, MD, April 2007.

NOAA Chesapeake Bay Office-Smithsonian Environmental Research Center Workshop, Presentation: Land-sea connections and thresholds, Edgewater, MD, March 2007.

- 2005 University of Maryland Baltimore County-Smithsonian Environmental Research Center Workshop, Edgewater, MD, January 2005.

NSF Sponsored Workshop on Managing Global Rivers and Estuaries: A Framework for Designing a Hudson River Monitoring System, Palisades, NY, June 2005.

- 2004 Maryland Department of the Environment, Coastal Bays Nutrient Workshop, Annapolis, Maryland.

National Oceanic and Atmospheric Administration: Patuxent River Watershed Model Comparison Workshop, SERC, Edgewater Maryland.

Chesapeake Community Modeling Program Watershed Workshop, Center of Marine Biotechnology, Baltimore, Maryland.

National Science Foundation: National Ecosystem Observatory Network and Mid-Atlantic Region Ecosystem Observatory Workshops, Front Royal, Virginia.

2003 Chesapeake Community Modeling Program Workshop, November 19-20, Virginia Institute of Marine Science, Gloucester, Virginia.

Science Forum on the Status of nutrients in Delmarva soils, groundwaters, creeks and tributaries; sponsored by the Chesapeake Research Consortium, the University of Maryland Center for Environmental Science, and the University of Maryland College for Agriculture and Natural Resources, Wye Research and Education Center, Maryland.

1998 National Oceanic and Atmospheric Administration: Assessing the contribution of atmospheric deposition to nitrogen loading of U. S. estuaries. Sarasota, Florida; and Block Island, Rhode Island.

1996 U. S. Geological Survey: Sediment Budget for the Chesapeake Bay Watershed. Harper's Ferry, West Virginia.

Smithsonian Institution: Opportunities for Environmental Research Across the Smithsonian, Front Royal, Virginia.

1995 Smithsonian Institution: The First Science and Humanities Dialogue, National Zoological Park, Washington, D. C.

1994 International Geosphere-Biosphere Programme Workshop: Modeling the delivery of terrestrial materials to freshwater and coastal ecosystems. University of New Hampshire, Durham, New Hampshire.

SCOPE workshop: Nitrogen dynamics in the North Atlantic. Block Island, Rhode Island.

1990 NSF Workshop on Land Margin Ecosystem Research, Horn Point Environmental Laboratories, University of Maryland, Horn Point, Maryland.

1987 Workshop on Stable Isotopes as Natural Tracers of Ecosystem Processes. The Ecosystems Center, Woods Hole, Massachusetts.

Recent Seminars:

2007 George Mason University, Fairfax, VA, March 2007. Transport and transformation of phosphorus from land to sea.

2005 NSF Sponsored Workshop on Managing Global Rivers and Estuaries: A Framework for Designing a Hudson River Monitoring System, Palisades, NY, June 2005. Monitoring the Chesapeake land-sea connection.

- Smithsonian Environmental Research Center, Maryland Department of Agriculture course for nutrient management consultants, Edgewater, MD, April 2005. Effects of agricultural and developed lands on nutrient discharges from watersheds.
- George Mason University, Fairfax, VA, February 2005. Nutrient discharges from watersheds of Chesapeake Bay: Effects of land use and physiographic province.
- University of Maryland Baltimore County-Smithsonian Environmental Research Center Workshop, Edgewater, MD, January 2005, Nutrient discharges from watersheds of Chesapeake Bay: Effects of land use and physiographic province.
- 2004 The Chesapeake Biological Laboratory, Solomons, MD, October 2004. Nutrient discharges from watersheds of Chesapeake Bay: Effects of land use and physiographic province.
- The Ecosystems Center, Marine Biological Laboratory, Woods Hole, MA, March 2004. Changes in nitrogen and phosphorus biogeochemistry along an estuarine salinity gradient.
- 2001 Academy of Natural Sciences of Philadelphia, PA, June 2001. Sources and sinks for nutrients in watersheds.
- 2000 Maryland Department of Agriculture, Annapolis, MD, November 2000. Riparian buffers and restored wetlands: Potential for controlling nitrogen discharge from agricultural watersheds.
- George Mason University, Fairfax, VA, September 2000. Factors controlling the discharge of nutrients from watersheds.
- Institute of Ecosystem Studies, Millbrook, NY, March 2000. Factors controlling the discharge of nutrients from watersheds.
- 1998 Bucknell University, Residential College of Environmental Science, Lewisburg, PA, November 1998. Human impacts on nutrient flow from the Susquehanna to the Chesapeake and beyond.
- SERC evening lecture series, SERC, Edgewater, MD, October 1998. Sources and solutions for nutrient pollution in Chesapeake Bay.
- Smithsonian Congress of Scholars Research Focus Meeting, SERC, Edgewater, MD, October 1998. Nutrient flow through coastal landscapes.
- Cornell University, Ithaca, NY, February 1998. Nitrogen flow across the United States and into Chesapeake Bay.

- 1997 From the Susquehanna to the Chesapeake: Humans overwhelm the natural cycle of nitrogen. Lewisburg Chapter of the National Audubon Society, Bucknell University, Lewisburg, Pennsylvania.
- Nitrogen flow across the United States and into the Chesapeake Bay. University of Maryland Horn Point Environmental Laboratories, Cambridge, Maryland.
- 1996 Human contributions to nitrogen flow in the biosphere. Bucknell University, Lewisburg, Pennsylvania.
- Nutrient discharges from watersheds large and small. Versar, Columbia, Maryland.
- 1995 Nutrient discharges from watersheds of Chesapeake Bay. Severn River Association, Annapolis, Maryland.
- Nitrogen flow from land to sea. Smithsonian Environmental Research Center, Edgewater, Maryland.
- 1993 From the Susquehanna to the Chesapeake: Nitrogen flow from land to sea. Bucknell University, Lewisburg, Pennsylvania.

Publications:

- Jordan, T. E., J. C. Cornwell, W. R. Boynton, and J. T. Anderson. 2008. Changes in phosphorus biogeochemistry along an estuarine salinity gradient: The iron conveyer belt. *Limnology and Oceanography* 53: 172-184.
- Boomer, K. B., D. E. Weller, T. E. Jordan. 2008. Universal Soil Loss Equation-Based Empirical Models Fail to Predict Sediment Discharges from Chesapeake Bay Catchments. *Journal of Environmental Quality* 37:79-89.
- Li, X., D. E. Weller, C. L. Gallegos, T. E. Jordan, H-C Kim. 2007. Effects of watershed and estuarine characteristics on the abundance of submerged aquatic vegetation in Chesapeake Bay subestuaries. *Estuaries and Coasts* 30(5), 840-854.
- Weller, D. E., M. N. Snyder, D. Whigham, A. D. Jacobs, and T. E. Jordan. 2007. Landscape indicators of wetland condition in the Nanticoke River watershed. *Wetlands* 27:498-515.
- Whigham, D.F., A. D. Jacobs, D.E. Weller, T.E. Jordan, M.E. Kentula, S.F. Hornsby, and D.L. Stevens. 2007. Combining HGM and EMAP procedures to assess wetlands at the watershed scale – status of flats and non-tidal riverine wetlands in the Nanticoke River watershed, Maryland (USA). *Wetlands* 27: 416-432.

- Jordan, T. E., M. P. Andrews, R. P. Szuch, D. F. Whigham, D. E. Weller, and A. D. Jacobs. 2007. Comparing functional assessments of wetlands to measurements of soil characteristics and nitrogen processing. *Wetlands* 27:479-497.
- Baker, M. E., D. E. Weller, and T. E. Jordan. 2007. Effects of stream map resolution on measures of riparian buffer distribution and nutrient retention potential. *Landscape Ecology* 22:973-992.
- Baker, M. E., D. E. Weller, and T. E. Jordan. 2006. Mapping watershed boundaries using digital elevation data: implications for land cover analysis of nutrient discharge. *Photogrammetric Engineering and Remote Sensing* 72:159-168.
- Baker, M. E., D. E. Weller, and T. E. Jordan. 2006. Improved methods for quantifying patterns of riparian buffers. *Landscape Ecology* 21:1327-1345.
- Gallegos, C. L., T. E. Jordan, A. H. Hines, and D. E. Weller. 2005. Temporal variability of optical properties in a shallow eutrophic estuary: Seasonal and interannual variability. *Estuarine, Coastal and Shelf Science* 64:156-170.
- King, R. S., M. E. Baker, D. F. Whigham, D. E. Weller, T. E. Jordan, P. F. Kazyak, and M. K. Hurd. 2005. Spatial considerations for linking watershed land cover to ecological indicators in streams. *Ecological Applications* 15(1):137-153.
- Hogan, D. M., T. E. Jordan, and M. R. Walbridge. 2004. Phosphorus retention and soil organic carbon in restored and natural freshwater wetlands. *Wetlands* 24(3):573-585.
- Whigham, D. F., D. E. Weller, A. D. Jacobs, T. E. Jordan, and M. Kentula. 2003. Assessing the ecological condition of wetlands at the catchment scale. *Landscape* 20:99-111.
- Whigham, D. F. and T. E. Jordan. 2003. Isolated wetlands and water quality. *Wetlands* 23:540-548.
- Jordan, T. E., D. F. Whigham, K. H. Hofmockel, and M. A. Pittek. 2003. Nutrient and sediment removal by a restored wetland receiving agricultural runoff. *Journal of Environmental Quality* 32:1534-1547.
- Breitburg, D.L., T. E. Jordan and D. Lipton. (eds.) 2003. From Ecology to Economics: tracing human influence in the Patuxent River Estuary and its watershed. Special Issue of *Estuaries*. Vol 26 (2a). 229 pp.
- Breitburg, D.L., T.E. Jordan, and D. Lipton. 2003. Preface—From ecology to economics: Tracing human influence in the Patuxent River estuary and its watershed. *Estuaries* 26:167-170.

- Jordan, T. E., D. E. Weller, and D. L. Correll. 2003. Sources of nutrient inputs to the Patuxent River estuary. *Estuaries* 26:226-243.
- Weller, D. E., T. E. Jordan, D. L. Correll, and Z. J. Liu. 2003. Effects of land use change on nutrient discharges from the Patuxent River watershed. *Estuaries* 26:244-266.
- Castro, M.S., C.T. Driscoll, T.E. Jordan, W.G. Reay, W.R. Boynton. 2003. Sources of nitrogen to estuaries in the United States. *Estuaries* 26:803-814.
- Whigham, D. F, M. Pittek, K. H. Hofmockel, T. E. Jordan, and A. L. Pepin. 2002. Biomass and nutrient dynamics in restored wetlands on the outer coastal plain of Maryland. *Wetlands* 22:562-574.
- Gallegos, C. L. and T. E. Jordan. 2002. Impact of the Spring 2000 phytoplankton bloom in Chesapeake Bay on optical properties and light penetration in the Rhode River, Maryland. *Estuaries* 25:508-518.
- Castro, Mark S., C.T. Driscoll, T.E. Jordan, W.G. Reay, W.R. Boynton, S.P. Seitzinger, R.V. Styles and J.E. Cable, 2001. Contribution of atmospheric deposition to the total nitrogen loads to thirty-four estuaries on the Atlantic and Gulf Coasts of the United States. Pp. 77-106. In: *Nitrogen Loading in Coastal Water Bodies: An Atmospheric Perspective*. R.M. Valigura, R. B. Alexander, M.S. Castro, T. P. Meyers, H. W. Paerl, P. E. Stacey, and R. E. Turner (eds.). Coastal and Estuarine Studies Series 57, American Geophysical Union, Washington, D.C.
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