

Solange Filoso

Chesapeake Biological Laboratory
University of Maryland Center for Environmental Science
Solomons, MD 20688
Phone: 410-326-7348
Fax: 410 326 7341
Email: filoso@umces.edu

I. Education

- 1985 B.S. Biological Sciences, São Paulo State University, Brazil
1990 M.A. Aquatic Biology, University of California, Santa Barbara
1996 Ph.D. Aquatic Biology, University of California, Santa Barbara

II. Professional Background

- 1993 Teaching Assistant, Department of Ecology, Evolution and Marine Biology, University of California, Santa Barbara, CA.
1994-1995 Research Assistant, Institute for Computational Earth Systems Sciences, University of California, Santa Barbara, CA.
1995-1996 Consultant, Jet Propulsion Laboratory, JPL – NASA, Pasadena, CA.
1998-2000 Postdoctoral Scientist, Center for Nuclear Energy in Agriculture, University of São Paulo, Brazil.
2001-2003 Postdoctoral Scientist, Ecosystems Center, Marine Biological Laboratory, Woods Hole, MA.
2002-2003 Lecturer, Department of Continuing and Distance Education, University of Massachusetts, Boston, MA.
2003-2005 Postdoctoral Fellow, Department of Ecology and Evolutionary Biology, Cornell University, Ithaca, NY.
2007 Faculty Research Associate, Department of Entomology, University of Maryland College Park.
2008-2011 Associate Research Scientist, Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science, Solomons, MD.
2011-2017 Research Assistant Professor, Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science, Solomons, MD.
2017-present Research Associate Professor, Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science, Solomons, MD.

1. Awards and Fellowships

- 1989-1993 International Student Fellowship, Brazilian National Research Council for the Development of Science and Technology, Brazil.

- 1993 Nomination for Best Teaching Assistant Award, University of California Santa Barbara.
- 1998-2000 Postdoctoral Fellowship, São Paulo Research Foundation, Brazil.
- 2003-2005 Biocomplexity and Biogeochemistry Initiative Fellowship, Cornell University, Ithaca, NY.

III. Research

A. Areas of professional expertise

Biogeochemistry, ecosystem ecology, watershed science, freshwater ecosystems, restoration ecology, tropical ecosystems

B. Peer-reviewed Publications

1. Papers in refereed journals

- Henry, R. and **Filoso, S.** 1988. Nutrient release through decomposition of *Diplodon delodontus expansus* (Mollusca, Bivalvia) and some considerations of its effects on the ecology of a small tropical reservoir. *Rev. Brasil. Biol.* 47:479-486.
- Wang Y., Hess, L.L., **Filoso, S.** and Melack, J.M. 1994. Canopy penetration studies: Modeled radar backscatter from Amazon floodplain forests at C-, L-, and P- band. *Proceedings from IGARSS 94:1060-1062.*
- Hess, L.L., Melack, J.M., **Filoso, S.** and Wang, Y. 1995. Delineation of inundated area and vegetation along the Amazon floodplain with the SIR-C Synthetic Aperture Radar. *IEEE Transactions on Geosciences and Remote Sensing* 33:896-904.
- Wang, Y., Hess, L.L., **Filoso, S.** and Melack, J.M. 1995. Understanding backscattering and nonflooded Amazonian forests: Results from canopy backscatter modeling. *Remote Sensing of Environment* 53:3-11.
- Filoso, S.**, Williams, M.R. and Melack, J.M. 1997. Spatial and temporal variation in the hydrochemistry of lakes of the Anavilhanas archipelago, Negro River, Brazil. *Verhandlungen-Internationale Vereinigung für theoretische und angewandte Limnologie* 26:309-312.
- Filoso, S.**, Williams, M.R. and Melack, J.M. 1999. The composition and deposition of throughfall in the Anavilhanas archipelago, Negro River, Brazil. *Biogeochemistry* 45: 169-195.
- Filoso, S.** and Williams, M.R. 2000. The hydrochemical influence of the Branco River on the Negro River and Anavilhanas archipelago, Amazonas, Brazil. *Archive fur Hydrobiologie* 148:563-585.
- Almeida, S., Martinelli, L.A., **Filoso, S.**, Brown, I.F., Moreira, M.Z., Victoria, R.L., Ferreira, C.A.C. and Thomas, W.W. 2000. Variation in nutrient distribution in a humid tropical forest in Rondônia, Brazil. *Biotropica* 32(4):597-613.
- Williams, M.R., Martinelli, L.A., **Filoso, S.** and Lara, L.B. 2001. Precipitation and river water chemistry of the Piracicaba River basin, southeast Brazil. *Journal of Environmental Quality* 30(3):967-981.

- Filoso, S.**, Martinelli, L.A., Williams, M.R., Lara, L.B., Krusche, A.V., Ballester, M.V. and Victoria, R.L. 2003. Land use and nitrogen export in the Piracicaba River basin, southeast Brazil. *Biogeochemistry* 65(3):275-294.
- Williams, M.R., **Filoso, S.** and Lefebvre, P. 2004. Effects of land-use change on solute inputs to floodplain lakes of the central Amazon. *Biogeochemistry* 68(2):259-275.
- Filoso, S.**, Vallino, J., Hopkinson, C. and Rastetter, E. 2004. Modeling nitrogen transport in the Ipswich River basin, Massachusetts, using HSPF: Present conditions and future scenarios. *Journal of the American Water Resources Association* 40(5):1365-1384.
- Martinelli, L.A., Howarth, R., Cuevas, E., **Filoso, S.**, Austin, A., Donoso, L., Huszar, V., Keeney, D., Llerena, C., McIsaac, G., Medina, E., Ortiz, J., Schindler, D., Scavia, D., Soto, D. and Townsend, A. 2006. The origin and fate of nitrogen in Latin America and the Caribbean. *Biogeochemistry* 79:1-6.
- Filoso, S.**, Martinelli, L.A., Howarth, R., Boyer, E.W. and Dentener, F. 2006. Human Activities Changing the Nitrogen Cycle in Brazil. *Biogeochemistry* 79:6-89.
- Martinelli, L.A. and **Filoso, S.**, 2007. Polluting effects of Brazil's sugar-ethanol industry. (Correspondence to Nature), *Nature* 445(25):364.
- Martinelli, L.A. and **Filoso, S.** 2008. Expansion of sugar-ethanol industry in Brazil: Environmental and social challenges. *Ecological Applications* 18:885-898.
- Craig, L.S., Palmer, M.A., Richardson, D.C., **Filoso, S.**, Bernhardt, E.S. and others. 2008. Stream restoration strategies for reducing river nitrogen loads. *Frontiers in Ecology and the Environment* 6, doi:10.1890/070080.
- Wenger, S., Roy, A.H., Jackson, C.R., Bernhardt, E.S., Carter, T.L., **Filoso, S.**, and others. 2009. Twenty-six key research questions in urban stream ecology: an assessment of the state of the science. *Journal of North America Benthological Society* 28(4):1080-1098.
- Palmer, M.A. and **Filoso, S.** 2009. Restoration of ecosystem services for environmental markets. *Science* 325(5940):575-576.
- Martinelli, L.A. and **Filoso, S.** 2009. Balancing food production, biodiversity and ecosystem services in Brazil: A challenge and an opportunity. *Biota Neotropica* 9(4):20-25. ISSN 1676-0603 (on-line).
- Martinelli, L.A., **Filoso, S.**, Ometto, J. and Victoria, R. 2010. Contextualizing ethanol avoided carbon emissions in Brazil. *Global Change Biology Bioenergy* 2(3):152-156.
- Martinelli, L.A., Coletta, L.D., Ravagnani, E.C., Camargo, P.B., Ometto, J.P.H.B., **Filoso, S.** and R.L. Victoria. 2010. Dissolved nitrogen in rivers: Comparing pristine and impacted regions of Brazil. *Brazilian Journal of Biology* 70(3):709-722.
- Williams, M.R., **Filoso, S.**, Longstaff, B. and Dennison, W. 2010. Long-Term Trends of Water Quality and Biotic Metrics in the Chesapeake Bay: 1986 to 2008. *Estuaries and Coasts* 33(6):1279-1299.
- Filoso, S.** and Palmer, M.A. 2011. Assessing the effectiveness of stream restoration at reducing fluxes of N to downstream waters. *Ecological Applications* 21:1989-2006.
- Martinelli, L.A., Pinto, A., Nardoto, G.B., Ometto, J.P.B., **Filoso, S.**, Coletta, L.D. and Ravagnani, E.C. 2012. Nitrogen mass balance in the Brazilian Amazon: an update. *Brazilian Journal of Biology* 72:683-690.

- Carmo, J.B., **Filoso, S.**, Zottelli, L., de Sousa Neto, E.R., Pitombo, L.M., Vargas, V.P., Andrade, C.A., Gava, G.C., Elia-Neto, A., Cantarella, H., Rossetto, R., Duarte-Neto, P.J., Gava, G.J.C. and Martinelli, L.A. 2013. Infield greenhouse gas emissions from sugarcane soils in Brazil: effects from synthetic and organic fertilizer application and crop trash accumulation. *Global Change Biology, Bioenergy* 5:1-14.
- Martinelli, L.A., **Filoso, S.**, Aranha, C.B., Ferraz, S., Andrade, T.B., Ravagnan, E., Coletta L. and de Camargo, P.B.. 2013. Water Use in Sugar and Ethanol Industry in the State of São Paulo (Southeast Brazil). *Journal of Sustainable Bioenergy Systems* 3:135-142.
- Palmer, M.A., **Filoso, S.** and Fanelli, R. 2014. From ecosystems to ecosystem services: Stream restoration as ecological engineering. *Ecological Engineering* 65:62-70.
- Filoso, S.**, Smith, S.M., Williams, M.R. and Palmer, M.A. 2015. The efficacy of constructed stream-wetland complexes at reducing the flux of suspended solids to Chesapeake Bay. *Environmental science & technology* 49(15):8986-8994.
- Filoso, S.**, do Carmo, J.B., Mardegan, S.F., Lins, S.R.M., Gomes, T.F. and Martinelli, L.A. 2015. Reassessing the environmental impacts of sugarcane ethanol production in Brazil to help meet sustainability goals. *Renewable and Sustainable Energy Reviews*, 52:1847-1856.
- Koch, B.J., Febria, C.M., Cooke, R.M., Hosen, J.D., Baker, M.E., Colson, A.R., **Filoso, S.** and others. 2015. Suburban watershed nitrogen retention: Estimating the effectiveness of stormwater management structures. *Elementa: Science of the Anthropocene*, 3(1): 000063. doi: 10.12952/journal.elementa.000063.
- Williams, M.R., Wessel, B.M. and **Filoso, S.** 2016. Sources of iron (Fe) and factors regulating the development of flocculate from Fe-oxidizing bacteria in regenerative stream water conveyance structures. *Ecological Engineering* 95:723-737.
- Williams, M.R., Bhatt, G., **Filoso, S.** and Yactayo, G. 2017. Stream Restoration Performance and its Contribution to the Chesapeake Bay TMDL: Challenges Posed by Climate Change in Urban Areas. *Estuaries and Coasts* (in press).
- Taniwaki, R.H., Cassiano, C.C., Ferraz, S.B.R, **Filoso, S.**, Camargo, P.B. and Martinelli, L.A. 2017. Impacts of converting low-intensity pastureland to high-intensity bioenergy cropland on the water quality of tropical streams in Brazil. *Science of The Total Environment* (in press).
- Filoso, S.**, Bezerra, M.O., Weiss, K.C. and Palmer, M.A. 2017. Impacts of forest restoration on water yields: A systematic review. *PLOS ONE* (<https://doi.org/10.1371/journal.pone.0183210>).

2. Technical Reports

- Rice, R., Saatchi, S., Alger, K., **Filoso, S.**, Alves, C. and Mesquita, C.A. 1997. Mapping Forest Fragments in Atlantic Coastal Moist Forest of Bahia, Brazil: A Case Study for Conservation and Biodiversity. Jet Propulsion Laboratory, National Space Agency (NASA) [<http://hdl.handle.net/2014/21712>].
- Filoso, S.** and Palmer, M.A. 2009. Western Chesapeake Coastal Plain Stream Restoration Targeting. Maryland Department of the Environment.

- Filoso, S.** and Palmer, M.A. 2011. Targeting Restoration Monitoring. Anne Arundel Department of Public Works.
- Filoso, S.** and Palmer, M.A. 2012. NPDES MS4 Program Targeted Restoration Monitoring Year 2010-2011. Anne Arundel Department of Public Works.
- Filoso, S.** and Williams, M.R. 2012. Monitoring the Effectiveness of Stormwater Treatment Practices at Reducing Pollutant Loads to Receiving Waters in the Magothy Watershed – Year 2011-212. Anne Arundel County Department of Public Works.
- Williams M.R., **Filoso, S.** and Harris, L. 2012. Integrating Climate Change into the Restoration of the Chesapeake Bay and Watershed. National Ocean and Atmospheric Administration (NOAA).
- Filoso, S.** 2013. Assessing the Effectiveness of Regenerative Stormwater Conveyance in reducing Sediment and Nutrient Loads to Three Mid-River Creeks in the Severn River watershed. Severn Riverkeeper, Maryland.
- Filoso, S.** 2013. Pre-Restoration Report for Saltworks and Church. South River Federation, Maryland.
- Filoso, S.** and Williams, M.R. 2014. Monitoring the Effectiveness of Stormwater Treatment Practices at Reducing Pollutant Loads to Receiving Waters in the Magothy Watershed - Year 2012-2013. Anne Arundel County Department of Public Works.
- Berg, J., Burch, J., Cappuccitti, **Filoso, S.** and others. 2014. Recommendations of the Expert Panel to Define Removal Rates for Individual Stream Restoration Projects. Chesapeake Stormwater Network, Chesapeake Bay Program.
[http://www.chesapeakebay.net/documents/Stream_Panel_Report_Final_08282014_Appendices_A_G.pdf]
- Williams, M.R. and **Filoso, S.** 2015. Monitoring the Effectiveness of Stormwater Treatment Practices at Reducing Pollutant Loads to Receiving Waters in the Magothy Watershed – Final Report. Anne Arundel County Department of Public Works.
- Filoso, S.** and Williams, M.R. 2015. Saltworks and Church Creeks monitoring: Final report. South River Federation.
- Williams, M.R. and **Filoso, S.** 2015. Post-Implementation Assessment: Effectiveness of a Regenerative Stormwater Conveyance Structure in the Anacostia Watershed. D.C. Department of the Environment and Energy.
- Williams, M.R. and **Filoso, S.** 2015. Pre- and Post-Implementation Assessment: Effectiveness of a Regenerative Stormwater Conveyance Structure in the Rock Creek Watershed: Final Report. D.C. Department of the Environment and Energy.
- Filoso, S.** and Weiss, K. 2015. A Systematic Review to Assess the State of the Art on the Relationship between Forest Restoration and Water Yield. International Union for Conservation of Nature (IUCN).
- Wainger, L., **Filoso, S.**, Gazenski, C., Theiling, E.M. and Komlos, S. 2016. Applying the EGS [Ecosystem Goods and Services] Framework: Meramec Case Study. 25 p. United States Army Corps of Engineers.

C. Contracts and Grants

1. Awarded

- 2010-13 National Oceanographic and Atmospheric Administration (NOAA), *Integrating Climate Change into the Restoration of the Chesapeake Bay and Watershed*. Grant to Williams (PI), Filoso (co-PI), Palmer (PI), Harris (co-PI).
- 2010-13 Severn Riverkeeper Group, *Assessing the Effectiveness of Regenerative Stormwater Conveyance in Reducing Sediment and Nutrient Loads to Three Mid-River Creeks in the Severn River*. Award to S. Filoso (PI).
- 2011-14 Anne Arundel County Dept. of Public Works, MD, *Assessing the Effectiveness of Stormwater Treatment Practices at Reducing Pollutant Loads to Receiving Waters in the Magothy Watershed*. Award to S. Filoso (PI) and M. Williams (co-PI).
- 2011-14 São Paulo State Foundation for Research Development (FAPESP, Brazil), *The role of riparian forests at regulating water quality and ecosystem function of topical headwaters streams draining agricultural land in Brazil*. Grant to S. Ferraz (PI), S. Filoso (co-PI-0%), L.A. Martinelli (co-PI).
- 2011-13 South River Federation, *Monitoring Effectiveness of Stream Restoration in Church & Saltworks Creeks*. Award to S. Filoso (PI).
- 2011-15 District of Columbia Department of Energy and the Environment (DOEE) and National Fish & Wildlife Foundation (NFWF), *Determining the Effectiveness of Regenerative Stormwater Conveyance Structures in the Rock Creek and Anacostia Watersheds*. Award to S. Filoso (PI) and M. Williams (PI).
- 2013-14 District of Columbia Department of the Environment (DDOE), *Potential Sources of Iron and their Regulation of Iron-Oxidizing Bacteria in Regenerative Stormwater Conveyance (RSC) Structures*. Award to S. Filoso (PI) and M. Williams (co-PI).
- 2013-14 Brazilian National Research Council (CNPq), process # 403998/2013-1. *Sugar cane expansion and emissions of greenhouse gases: Conversion of degraded pasture to sugarcane agriculture*. Awarded to Janaina B. do Carmo (PI) and S. Filoso (co-PI).
- 2014-18 São Paulo State Foundation for Research Development (FAPESP, Brazil), *Eco-hydrological function of buffer forests in agricultural catchments along a gradient of land use and management practices*. Awarded to Silvio F. Ferraz (PI), T.A. Gardner (co-PI), P. Gerhard (co-PI), L.A. Martinelli (co-PI), W.P. Lima (co-PI), S. Filoso (co-PI), J. Richardson, S.M. Tsai (co-PI).
- 2015 National Socio-Environmental Synthesis Center (SESYNC/NSF), *Brazil Forest Restoration for Ecosystem Services*, Ventures program. Awarded to R.R. Rodrigues (PI), S. Filoso (PI), and A.G. Nave (co-PI).
- 2015-16 National Socio-Environmental Synthesis Center (SESYNC/NSF), *Evaluating the Recovery of Ecosystem Services in Restored Tropical Forests in Brazil: Water Provision and Purification*. Awarded to S. Filoso (PI).
- 2015-16 District of Columbia Department of Energy and the Environment (DOEE), *Determining the Effectiveness of Regenerative Stormwater Conveyance Structures in the Rock Creek and Anacostia Watersheds*. Awarded to S. Filoso (PI).
- 2016-18 Chesapeake Bay Trust/ Maryland Department of the Environment, *Evaluating the Effectiveness and Sustainability of Novel Stream Restoration Designs for Coastal*

Plain Streams in Maryland: Integrating Existing and New Data from Restoration Monitoring, Awarded to S. Filoso (PI).

2. Pending

2016-20 São Paulo State Foundation for Research Development, Brazil. *Multiperspective Assessment of Ecosystem Services at Atlantic Forest Restoration Sites for Public Policy Support*. Miguel Cooper (lead PI), S. Ferraz (PI), R. Rodrigues (co-PI), S. Filoso (co-PI), M. Palmer (co-PI) and others.

D. Invited Seminars and Presentations

1. Invited seminars

- 2001 Impacts of Agriculture Intensification and Urbanization on Nitrogen Budgets in Brazil. Ecosystem Center Seminar Series, Ecosystems Center, MBL, Woods Hole, MA.
- 2003 Nitrogen Export in a Developed Tropical Watershed. Department of Ecology and Evolutionary Biology Weekly Seminar Series, Cornell University, Ithaca, NY.
- 2004 Land Use and Nitrogen Balance in the Piracicaba River, Brazil. Faculty Seminar Series, Horn Point Laboratory, Cambridge, MD.
- 2008 Sugarcane Ethanol Expansion in Brazil, Chesapeake Biological Laboratory (CBL-UMCES) Distinguished Scholar Seminar Series, MD.
- 2008 Assessing the Impacts of Stream Restoration, South River Federation, Annapolis, MD.
- 2009 Effectiveness of Stream Restoration at Reducing TSS and N Loads in Streams in Anne Arundel County, Annapolis, MD.
- 2009 Expanding Sugarcane Ethanol Production in Brazil: Unintended Consequences and Prospects for Sustainability, Global Energy Seminar Series, U.S. State Department, Washington, DC.
- 2011 Stream Restoration for N Removal: Rethinking Practice and Expectations, Chesapeake Biological Laboratory (CBL-UMCES) Distinguished Scholar Seminar Series, MD.
- 2011 Assessing Stream Restoration Effectiveness at Reducing Pollutant Loads to Downstream Waters. Center for Watershed Protection, Ellicott City, MD.
- 2013 Effectiveness of Restoration of Clements Creek Headwaters: Results from a Two-year Monitoring Project. Arlington Echo, Crownsville, MD.
- 2014 Present stream conditions and functional response to nutrient dynamics. Maryland Department of Natural Resources Stream Information Exchange Meeting, Anne Arundel County, MD.
- 2015 *Co-author*, Sources of Fe and their Regulation of Fe-Oxidizing Bacteria in RSC Structures, EPA Region III headquarters, Philadelphia. Michael R. Williams, Barret M. Wessel, Solange Filoso.
- 2015 *Co-author*, Sources of Fe and their Regulation of Fe-Oxidizing Bacteria in RSC Structures; Michael R. Williams, Barret M. Wessel, Solange Filoso, Maryland Department of Natural Resources, MANTA, Annapolis, MD.
- 2016 Impacts of stream restoration on nutrient and sediment concentrations and fluxes: An overview. The Chesapeake Bay Trust Stream Restoration Forum, Baltimore, MD.

- 2016 River Restoration: Case Studies from the Chesapeake Bay Region, USA. Workshop for the Restoration of the Jacaré River. Niterói, RJ, Brazil. (*special guest*).
- 2017 Emerging Patterns of Stream Restoration Efficacy at Reducing Nitrogen and Sediment Export. The Chesapeake Bay Trust Stream Restoration Forum, Baltimore, MD.

2. Invited Conference/ Workshop Presentations

- 2002 Nitrogen Export in the Piracicaba River. Workshop on Nitrogen Cycling across the Americas, Ubatuba, Brazil.
- 2004 Human Activities Changing the Nitrogen Cycle in Brazil. Inter-American Nitrogen Network Workshop, San Juan, Puerto Rico.
- 2005 Human Activities Changing the Nitrogen Cycle in Brazil. Inter-American Nitrogen Network Workshop, Brasilia, Brazil.
- 2007 4th International Nitrogen Conference, Bahia, Brazil.
- 2007 Stream restoration monitoring in Anne Arundel County. Stream Restoration Workshop, US Geological Survey, Baltimore, MD.
- 2007 Sampling stream water, Colloquium, Alliance for Coastal Technologies, Solomons, MD.
- 2009 Reducing N and TSS Loads to Coastal Waters Using Stream Restoration, Watershed Management Symposium, Albright College, Reading, PA.
- 2010 Nitrogen dynamics and flux in rehabilitated Coastal Plain streams. Maryland Water Monitoring Council Annual Conference, Lythicum, MD.
- 2011 Assessing Stream Restoration Effectiveness at Reducing N and TSS Loads to Downstream Waters. Tidal Monitoring and Analysis Group (TMAW), Baltimore, MD.
- 2012 Monitoring Stream Restoration in Anne Arundel County. Urban Stream Restoration Expert Panel Meeting (Chesapeake Bay Program), Annapolis, MD.
- 2014 Novel stream restoration designs and their potential to reduce pollutant loads. Maryland Water Monitoring Council 20th Annual Meeting, Lythicum, MD.
- 2014 Present stream conditions in MD and functional response to nutrient dynamics. Maryland Department of Natural Resources Stream Exchange, Anne Arundel Community College, MD.
- 2015 River Restoration to Improve Water Quality, VI Ecological Restoration Symposium, São Paulo, Brazil. (*special guest*).
- 2015 Tropical Forest Restoration for Ecosystem Services: Project Overview, Workshop at SESYNC, Annapolis, MD.
- 2016 Impacts of stream restoration on nutrient and sediment concentrations and fluxes: An overview. The Chesapeake Bay Trust Stream Restoration Forum, Baltimore, MD. (*special guest*).
- 2016 River Restoration: Case Studies from the Chesapeake Bay Region, USA. Workshop for the Restoration of the Jacaré River. Niterói, RJ, Brazil. (*special guest*).
- 2017 Water-quality effectiveness of stream restoration. STAC Workshop, April 24-25, Annapolis, MD.

3. Conference Presentations

- Filoso, S.** 2009. Moving toward more strategic approaches in stream restoration. Ecological Society of America, Special Session: Linking People, Nature, and Water Together through Restoration, Pittsburg, PA.
- Filoso, S.** 2010. Restoration as a network process or stream by stream? North American Benthological Society Annual Meeting, Special session "Stream Network Connections: Quantifying Hydrological, Chemical, and Biological Linkages". Santa Fe, NM.
- Filoso, S.** 2013. Plain Drainage Networks and Implications to Nutrients and Sediments Delivery. The Geological American Society Northeastern Section Meeting, Bretton Woods, NH.
- Filoso, S.** and Williams, M.R. 2014. Climate change and the management of N export from urban catchments to aquatic ecosystems: A watershed approach. CERF Meeting 2013, San Diego, CA.
- Williams, M. , Yactayo, G. and **Filoso, S.** 2015. Managing Stormwater Runoff from Urban Areas in Consideration of Predicted Climate Change Impacts in the Chesapeake Bay Watershed. American Water Resources Association annual meeting, New Orleans.
- Bezerra, M.O., **Filoso, S.** and Palmer, M.A. 2016. Does Compliance with the Brazilian Forest Code Mitigate the Impacts of Sugarcane Agriculture and its Legacy on Stream Nutrient Concentrations in Brazil? Society of Freshwater Science Annual Conference, Sacramento, CA.
- Bezerra, M.O., **Filoso, S.** and Palmer, M.A. 2015. Hydrological connectivity via gully formation in tropical watersheds limits the effectiveness of riparian buffers in protecting streams. American Geophysical Union Fall Meeting, San Francisco, CA.
- Williams, M.R., **Filoso, S.** Yactayo, G. and Bhatt, G. 2015. Stream Restoration and the TMDL Process: Challenges Posed by Climate Change. Maryland Water Monitoring Council Annual Conference, Lythicum, MD, November 2015.
- Williams, M.R. and **Filoso, S.** 2016. Performance of headwater regenerative streamwater conveyance (RSC) structures. Maryland Water Monitoring Council Annual Conference, Lythicum, MD, December, 2016. (Abstract accepted)
- Williams, M.R., Bhatt, G., **Filoso, S.** and Yactayo, G. 2017. Stream Restoration Performance and its Contribution to the Chesapeake Bay TMDL: Challenges Posed by Climate Change in Urban Areas. AGU Chapman Conference, Puerto Rico, January 2017. (Abstract accepted).

E. Symposia Organized/Chaired for Professional Meetings

- 2004 *Organizing Committee Member* (with Robert W. Howarth and Luiz. A. Martinelli), Workshop for the Inter-American Nitrogen Initiative. San Juan, Puerto Rico.
- 2005 *Organizing Committee Chair* (with Linda Raben of Cornell University Latin American Studies), Brazil Symposium at Cornell University.
- 2005 *Session Convener*, Session on Development and Environmental Problems in Brazil, Cornell University Symposium "Brazil in Four Dimensions: Local, Regional, National, International."
- 2007 *Session Convener* (with Dr. Elizabeth Boyer of UC Berkley), Nitrogen Budget session at the 4th International Nitrogen Initiative Conference, Bahia, Brazil.

- 2015 *Organizing Committee Co-chair* (with Dr. Ricardo Rodrigues of University of São Paulo), Workshop at the National Socio-Environmental Synthesis Center to delineate a multi-disciplinary research project to study the recovery of ecosystem services in restored tropical forests in Brazil. Annapolis, MD.
- 2015 *Organizing Committee Co-chair* (with Dr. Ricardo Rodrigues of University of São Paulo), Workshop at the National Socio-Environmental Synthesis Center to develop new collaborative research to study the recovery of ecosystem services with forest restoration in Brazil. Annapolis, MD.

F. Active Membership in Professional Societies

Society for Freshwater Science, Ecological Society of America (Biogeosciences Section).

V. Outreach and Service

A. Peer Review

Manuscript Reviewer

Applied Ecology and Environmental Research, Biogeochemistry, Biomass and Bioenergy, Environmental Management, Journal of American Water Resources Association, Journal of Biomass and Biofuels, Journal of Environmental Management, Journal of North American Benthological Society/Freshwater Science, Journal of Renewable and Sustainable Energy, Limnology and Oceanography, Oecologia, Philosophical Transactions of the Royal Society B, Water.

B. Public Service

- Ad-hoc adviser for the Anne Arundel County Watershed Protection and Restoration Program, Anne Arundel, MD.
- Adviser for the American Chestnut Land Trust on watershed management and stream restoration in the Parkers River watershed, Prince Frederick, MD.
- Presented talks at the Center for Watershed Protection, South River Federation, and Anne Arundel County.

C. Federal/State/Local Government

- Member, MD DNR Maryland Water Monitoring Council Stream Restoration Monitoring Subcommittee.
- Affiliate, EPA Stream Health Work Group.

D. International

- Liaison, transferring scientific knowledge about stream restoration and urban stormwater management from the Chesapeake Bay to scientists, policy makers, and natural resources managers in Brazil.
- Ad-hoc adviser for issues of forest restoration and water provision services for the International Union for Conservation of Nature.
- Ad-hoc adviser for World Research Institute Brazil on the impacts of tropical forest restoration on water quality and quantity.
- Provide publication support for Brazilian scientists (English grammar).

F. UMCES and Laboratory

- Member, UMCES Global Reach-Brazil committee.
- CBL Distinguished Seminar Series co-chair in 2009 and 2011.

G. Other Outreach Services

On the media

- 1) Capital Gazette. Stormwater. May 30, 2013.
[<http://www.capitalgazette.com/cg2-arc-aca9b552-0cc3-57d2-909a-7034ae4f25a8-20130530-story.html>]
- 2) Yale Environment 360. Will Indonesian Fires Spark Reform of Rogue Forest Sector? 05 Nov 2015.
[http://e360.yale.edu/feature/will_indonesian_fires_spark_reform_of_rogue_forest_sector/2928/]
- 3) Chesapeake Quarterly. Through Rain and Cold, the Monitoring Must Go On.
[<http://www.chesapeakequarterly.net/V14N1/side1/>]
- 4) Niteroi Urgente. Seminar discusses Jacaré River restoration.
[http://www.niteroi.rj.gov.br/index.php?option=com_content&view=article&id=3842:2016-03-07-22-52-23&catid=44:2016]