

Tammy Erlene Parece
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Website: <https://tammyparece.wordpress.com/>

Education

Ph.D., Geospatial and Environmental Analysis, 2016, Virginia Polytechnic Institute and State University. Dissertation Title: *Geospatial Analysis to site Urban Agriculture.*

M.S., Geography, 2010, Virginia Polytechnic Institute and State University. Thesis Title: *Managing water and electricity consumption in university residence halls: a study on promoting voluntary resource conservation by college students.*

Graduate Certificate - Geographic Information Systems, 2008, Virginia Commonwealth University.

B.S., Interdisciplinary Studies, 2006, Virginia Commonwealth University.

John Tyler Community College, Chesterfield, Virginia. 1994 – 2000.

Central Virginia Community College, Lynchburg, Virginia. 1983 – 1987.

College of DuPage, Glen Ellyn, Illinois. 1978 – 1979.

Purdue University, West Lafayette, Indiana. (Tammy Erlene Witthoft). 1977.

Academic Work History

Colorado Mesa University, Grand Junction Colorado, starting August 2016
Instructor of Geography, Department of Social and Behavioral Sciences

Virginia SNAP Ed Program. Summer 2016. GIS Analyst.

Virginia Tech, Blacksburg, Virginia

Instructor

Introduction to Remote Sensing. Summer 2014.

Introduction to Human Geography. Summer 2011 & 2012.

Assistantships - Teaching

College of Natural Resources and Environment's First Year Experience Course. 2014 – 2015.

Introduction to Remote Sensing. Fall 2012 & 2013. Department of Geography.

Analysis of Spatial Data. Spring 2012 & 2013. Department of Geography.

GIS in Natural Resource Management. Fall 2011. Department of Forest Resources and Environmental Conservation.

Information Technologies for Natural Resource Management. Spring 2011. Department of Forest Resources and Environmental Conservation.

Introduction to Human Geography. Spring 2009 & 2010. Department of Geography.

Introduction to Geographic Information Systems. Fall 2008 & 2009. Department of Geography.

Assistantship – Research

Integrating soil and vegetation performance engineered environments in urban watersheds. Summer 2011. Department of Forest Resources and Environmental Conservation.

AmericaView (<http://www.americaview.org/>)

Instructor, WS #16: Remote Sensing Using ArcGIS 10.x. April 14, 2016. American Society for Photogrammetry and Remote Sensing 2016 Annual Conference, Fort Worth, Texas.

VirginiaView (<http://virginiaview.cnre.vt.edu/>), **Blacksburg, Virginia**

Instructor, Getting to Know Lidar in ArcGIS. December 10, 2015, Virginia Tech, Blacksburg, Virginia. Workshop for Professionals.

Instructor, Introduction to Lidar in an ArcGIS 10.2 Environment. October 19, 2015. 26th Annual Virginia GIS Conference, Charlottesville Virginia.

<http://www.vamlis.org/VirginiaGISConference2015.aspx>

Instructor, Webinar: Subsetting and Enhancing Landsat Imagery using ArcGIS Desktop. October 15, 2015. <https://learn.extension.org/events/1875#.VcjzpPIFFcJ>

Instructor, Webinar: Displaying Landsat Imagery using Band Combinations in ArcGIS Desktop. September 9, 2015. <https://learn.extension.org/events/1873#.ViAiXCuX9cJ>

Instructional Developer, *Finding and using lidar data in ArcGIS*. Summer 2015

Instructor, Webinar: Selecting, Downloading, Displaying, and Understanding Landsat Imagery. June 3, 2015. <https://learn.extension.org/events/1871#.VXA0zEbyRcJ>

Co-Instructor, Remote Sensing Using ArcGIS 10.X. June 25 - 26, 2015 & June 26 - 27, 2014. Location - Reynolds Community College Campus, Richmond, Virginia.

Instructional Developer, *Using ESRI's On-Line Landsat Map Databases*. Summer 2014.

Instructional Developer, Created image analysis tutorials for Landsat Imagery using ArcGIS. Summer 2013.

Geospatial Technologies: Introductory Workshops for Educators. Co-instructor and developed curriculum and program for a series of workshops on GIS, GPS and remote sensing to improve Virginia Community College instruction in K-12 STEM education. Two-day workshops conducted in 3 different community colleges in Virginia. July 2012.

Conservation Management Institute (<http://cmi.vt.edu/>), **Blacksburg, Virginia**

Instructor, Introduction to GIS and Remote Sensing. October 29 – 31, 2013 and March 11 – 13, 2014. Virginia Department of Environmental Quality, Richmond, Virginia.

Virginia Commonwealth University, Richmond, Virginia

Undergraduate Assistantship -Teaching

World Regions Geography Service-Learning Course. 2005 – 2006

Graduate Assistantship - Research

Research on service learning and nature deficit disorder, preparing and coordinating activities for an environmental festival. 2007 – 2008.

Publications

Journal Articles

Parece, T.E., and Campbell, J.B. **Under peer review**. Intra-Urban Microclimate Effects on Phenology.

Parece, T.E., and Campbell, J.B. **Under peer review**. An analysis of the ecological impacts of community gardens using NDVI.

Parece, T.E. and Campbell, J.B. **Pending publication**. Geospatial evaluation for urban agriculture land inventory: Roanoke, Virginia. *International Journal of Applied Geospatial Research* 8(1).

- Parece, T.E., Campbell, J. B., and Serrano, E.L. 2016. Strategically siting urban agriculture: A socio-economic analysis of Roanoke, Virginia. *The Professional Geographer*. <http://dx.doi.org/10.1080/00330124.2016.1157496>
- Parece, T.E., Lie, J., Campbell, J.B., and Carroll, D. 2016. Assessing urban landscape variables contribution to microclimates. *Advances in Meteorology*. DOI:10.1155/2016/8736263.
- Parece, T.E. and Campbell, J.B. 2015. Identifying Urban Watershed Boundaries and Area, Fairfax County, Virginia. *Photogrammetric Engineering & Remote Sensing* 81(5):365-372.
- Parece, T.E., McGee, J, Campbell, J.B., and Wynne, R.H. 2015. Virginia's Efforts to Expand Learning Geospatial Technologies across the Educational Spectrum. *Photogrammetric Engineering & Remote Sensing* 81(3):173-181.
- Parece, T.E. and Campbell, J.B. 2013. Comparing Urban Impervious Surface Identification Using Landsat and High Resolution Aerial Photography. *Remote Sensing* 5(10): 4942-4960.
- Parece, T., Younos, T., Grossman, L.S., and Geller, E.S. 2013. A study of environmentally relevant behavior in university residence halls. *International Journal of Sustainability in Higher Education* 14 (4): 466-481.
- Parece, T.E. and Aspaas, H.R. 2007. Reedy Creek Cleanup: The Evolution of a University Geography Service Learning Project. *Journal of Geography* 106 (4): 153-161.

Book Chapters

- Parece, T.E. and Campbell, J.B. **Pending Publication.** A survey of urban gardeners across the United States. In *Global Urban Agriculture: Convergence of Theory and Practice between North and South*, Antoinette WinklerPrins, Ed. CABI.
- Parece, T.E. Lumpkin, M., and Campbell, J.B. 2016. Integrating harvested rainwater in urban agriculture. In *Sustainable Water Management in Urban Environments*. T. Younos and T.E. Parece, eds. Book Series: The Handbook of Environmental Chemistry, Volume 47; Springer.
- Parece, T.E., McGee, J., and Campbell, J.B. 2016. On-line geospatial resources to support STEM instruction. Chapter 4 in *STEM and GIS in Higher Education*. (David J. Cowen, Ed.). ESRI Press (ebook). 303 pages. <https://esri.app.box.com/v/STEMGIS>
- Parece, T.E. and Campbell, J.B. 2015. Land use/land cover monitoring and geospatial technologies: An overview. In *Advances in Watershed Science and Assessment*. T. Younos and T.E. Parece, eds. Book Series: The Handbook of Environmental Chemistry, Volume 33; Springer. DOI 10.1007/978-3-319-14212-8_1
- Parece, T., Grossman, L.S., and Geller, E.S. 2013. Reducing Carbon Footprint of Water Consumption: A Case Study of Water Conservation at a University Campus. In *Climate Change and Water Resources*, Volume Editors: T. Younos and C. Grady. Book Series: The Handbook of Environmental Chemistry, Volume 25. Springer.
- Younos, T. and Parece, T.E. 2012. Water Use and Conservation. In: Stoltman, J., ed. *21st Century Geography: A Reference Handbook*. 40: 446-456. Los Angeles: Sage.

Books

- Parece, T.E., Campbell, J.B. and McGee, J. 2016. *Working with Lidar using ArcGIS Desktop*. Kindle Direct Publishing. <https://www.amazon.com/dp/B01K57CNE8#nav-subnav>.
- Parece, T.E., Campbell, J.B. and McGee, J. 2015. *Remote Sensing Analysis in an ArcMap Environment*. Kindle Direct Publishing. <http://www.amazon.com/dp/B00VGE0464>. 255 p.

Technical Reports

- Parece, T., DiBettito, S., Sprague, T., and Younos, T. 2010. The Stroubles Creek Watershed: History of development and chronicles of Research. VWRRC Special Report No. SR48-2010. Virginia Tech, Blacksburg, VA. Available at: http://www.vwrrec.vt.edu/special_reports.html#2009

DiBetto, S. Younos, T., and Parece, T. 2009. A longitudinal analysis of the impact of urbanization on Stroubles Creek: Historical Perspective. In *Virginia Water Resources Research Center, 2009 NSF REU Proceedings of Research: Research Opportunities in Interdisciplinary Watershed Sciences and Engineering*. VWRRC Special Report No. SR47-2009. T. Parece, T. Younos & V. Lohani, eds. Virginia Tech: Blacksburg, VA. Pp: 75-84. Available at http://www.vwrcc.vt.edu/nsf_reu.html

Sprague, T., Parece, T., and Younos, T. 2009. Analyzing the Upper Stroubles Creek Watershed using geospatial technologies. In *Virginia Water Resources Research Center, 2009 NSF REU Proceedings of Research: Research Opportunities in Interdisciplinary Watershed Sciences and Engineering*. VWRRC Special Report No. SR47-2009. T. Parece, T. Younos & V. Lohani, eds. Virginia Tech: Blacksburg, VA. Pp: 85 - 94. Available at http://www.vwrcc.vt.edu/nsf_reu.html

Teacher Resources

McNally, RJ, Parece, T., and Campbell, J. 2015. An Educator's Guide to Weather Underground®: A Step-by-Step User's Manual for K-12 Educators. Weblink forthcoming.

McNally, RJ, Parece, T., and Campbell, J. 2015. WeatherLink®: A Step-by-Step Software Users' Guide. Prepared for Roanoke City Public Schools, Roanoke, Virginia, for use with fixed weather stations installed in 2013.

Edited Works

Hydrology. Special Edition – The Intersection of Society and Watershed Science. T. Younos, T.E. Parece, and A.J. Armel, Special Editors. Deadline for submissions – January 31, 2016. http://www.mdpi.com/journal/hydrology/special_issues/watershed_science.

Sustainable Water Management in Urban Environments. 2016. T. Younos and T. Parece, eds. Book Series: The Handbook of Environmental Chemistry, Volume 47; Springer. <http://www.springer.com/gp/book/9783319293356>

Advances in Watershed Science and Assessment. 2015. T. Younos and T.E. Parece, eds. Book Series: The Handbook of Environmental Chemistry, Volume 33; Springer.

Virginia Water Resources Research Center, 2009 NSF REU Proceedings of Research: Research Opportunities in Interdisciplinary Watershed Sciences and Engineering. VWRRC Special Report No. SR47-2009. T. Parece, T. Younos & V. Lohani, eds. Virginia Tech: Blacksburg, VA. Available at http://www.vwrcc.vt.edu/nsf_reu.html

Competitive Funding

Fellowships

- American Society for Photogrammetry and Remote Sensing. 2016 Robert N. Colwell Memorial Fellowship. \$6,500.
- Virginia Space Grant Consortium 2015 – 2016 Graduate Research Fellowship. \$6,000.
- U.S. Environmental Protection Agency STAR Fellowship. 2014 – 2016. \$84,000.
- Virginia Space Grant Consortium 2014 – 2015 Graduate Research Fellowship. \$5,000.

Scholarships

American Society for Photogrammetry and Remote Sensing. Paul R. Wolf Memorial Scholarship, 2014. \$3,500.

U.S. Geospatial Intelligence Foundation Doctoral Scholarship. August 2013. \$5,000.

Cabell Brand Center First Freedom Scholarship, April 2013. \$1,000

Virginia Chapter of the American Water Works Association Scholarship, August 2012. \$1,000.00

Virginia Chapter of the Water Environment Federation. Sonny Roden Memorial Scholarship.
May 2012. \$1,500.00

Virginia Lakes and Watersheds Scholarship. September 2009. \$2,500.00

Virginia Water Environment Federation. Sonny Roden Memorial Scholarship. September 2009.
\$1,500.00

Grants

Gamma Theta Upsilon AAG Travel Grant. April 2015. \$200.00

Sigma Xi Graduate Award for Doctoral Degree Students. May 2013. \$1,000

Sidman Poole Endowment Fund. January 2013. \$1500.00 grant to use for dissertation research -
purchasing weather stations for Roanoke City Public Schools.

Graduate Research Development Project, Virginia Tech. December 2012. \$500.00 for
dissertation research project – purchasing weather stations for Roanoke City Public Schools.

Precourt Energy Efficiency Center – Precourt Center Fellow for the 2009 Behavior, Energy and
Climate Change Conference. November 2009. \$330.00

The Honor Society of Phi Kappa Phi Love of Learning Award. September 2009. \$500.00

Sidman P. Poole Endowment Fund. April 2009. \$800.00

Graduate Research Development Project, Virginia Tech - \$400.00 for graduate research project -
Managing Water and Electricity Consumption in University Residence Halls: A study on
promoting voluntary resource conservation by college students. Spring 2009.

Co-Principal Investigator, Virginia Commonwealth University Counsel for Community
Engagement. \$10,280. Environmental Festivals: Opportunities for Engaging our Citizens in
Watershed Sustainability. July 1, 2007 – June 30, 2008.

Co-Principal Investigator, Virginia Environmental Endowment. \$3,000. Environmental
Festivals: Opportunities for Engaging our Citizens in Watershed Sustainability. September
1, 2007 – May 1, 2008.

Co-Principal Investigator, Virginia Naturally Partner Grant. \$2,000. Environmental Festivals:
Opportunities for Engaging our Citizens in Watershed Sustainability. October 1, 2007 – June
1, 2008.

Honors and Awards

2016 ESRI Award for Best Scientific Paper in Geographic Information Systems. “Identifying
Urban Watershed Boundaries and Area, Fairfax County, Virginia.” *PE&RS*, 81 (5), 365-372.

Outstanding Ph.D. Student. Virginia Tech, College of Natural Resources, Department of
Geography. 2016.

Citizen Scholar Engagement Award. Virginia Tech. March 2014.

AmericaView Education Committee Service Award, February 2014.

A. B. Massey Award for Outstanding Ph.D. Student. Virginia Tech, College of Natural
Resources, Department of Geography. 2013

Who’s Who among Students in American Universities and Colleges®. Nominated by Dr. Karen
DePauw, Dean of the Virginia Tech Graduate School. 2012, 2013, 2014 & 2015

Geographic Society at Virginia Tech Outstanding Member. 2010 – 2011

2010 Robert L. and Esther E. Youngs Award for Excellence in Written Contribution to Natural
Resources. Virginia Tech, College of Natural Resources and Environment. 2010

A. B. Massey Award for Outstanding Masters Student. Virginia Tech, College of Natural
Resources, Department of Geography. 2010

Distinguished Academic Service Award -Nontraditional Studies Alumni Council Student
Achievement Award. Virginia Commonwealth University. 2007.

Summa cum Laude. Virginia Commonwealth University, Richmond, VA. 2006.

Bachelor of Interdisciplinary Studies Outstanding Student. Virginia Commonwealth University, College of Humanities and Sciences. 2006.

Top One Percent of the Senior Class. Virginia Commonwealth University, College of Humanities and Sciences. 2006.

Distinguished Graduate Award in the Associate in Loss Control Management Program. American Society of Safety Engineers. 2000.

Professional History

Employment

Scott Insurance, Lynchburg, Virginia. 2002 – 2014.

AIG Claims Services, Richmond, Virginia. 1993 – 2002.

Midkiff and Hiner (now Midkiff, Muncie & Ross), Richmond, Virginia. 1990 – 1993.

Sentry, A Mutual Insurance Company, Richmond, Virginia. 1988 – 1990.

Nationwide Insurance, Lynchburg, Virginia. 1983 – 1988.

The Bell System (AT&T, Chicago, IL & Illinois Bell Telephone Company, Champaign, IL). 1978 – 1982.

Education

Insurance Institute of America, Malvern, PA. 1987 – 2006.

Professional Insurance Certifications

- Associate in Insurance Services (AIS), 2006
- Associate in Claims (AIC), 2005
- Associate in Loss Control Management (ALCM), 2000
- Chartered Property Casualty Underwriter (CPCU), 1997
- Certificate in General Insurance, 1996

Insurance Teaching Positions

Instructor - Insurance Institute of America, Malvern, PA and Richmond CPCU Society, Richmond Virginia

- CPCU 510, Foundations of Risk Management, Insurance & Professionalism. Fall 2005 & 2006
- INS 22, Personal Insurance. Spring 2005
- AIC 36, Liability Claims Practices. Fall 2004 (Apprentice Instructor).

Academic Conferences

Oral Presentations

Rainwater Harvesting in Roanoke, Virginia, part of panel discussion titled - *Developing Integrated Urban Resiliency: The Nexus between Water, Food, Energy and Public Health*. Association for Environmental Studies and Sciences 2016 Annual Conference, Washington DC. Scheduled for June 9, 2016.

Evaluating Urban Agriculture's NDVI Signature. American Society for Photogrammetry and Remote Sensing 2016 Annual Conference, April 11 – 15, 2016 Fort Worth, Texas. Tammy E. Parece and James B. Campbell.

Virginia's K-12 Teachers and Students see their World from a New Perspective. National Council for Geographic Education. Washington, D.C. August 6 – 9, 2015. Tammy E. Parece, John McGee and James B. Campbell.

- A Survey of U.S. Urban Gardeners and their Food Production.* Association of American Geographers Annual Conference, Chicago, IL. April 20 – 25, 2015. Tammy E. Parece and James B. Campbell.
- Using Mobile and Fixed Stations to Observe Spatial and Temporal Variations In Roanoke Virginia's Urban Heat Island.* Association of American Geographers Annual Conference, Chicago, IL. April 20 – 25, 2015. Tammy Parece, James B. Campbell, Jie Li, and David F. Carroll.
- Geography, Sustainability, and the Green Campus – Virginia Tech's First Year Experience Program.* Association of American Geographers Annual Conference, Chicago, IL. April 20 – 25, 2015.
- Geospatial resources to engage learners across educational spectrums.* ESRI Education GIS Conference, San Diego, CA. July 12 – 13, 2014. Tammy E. Parece, John McGee and James Campbell.
- Delineating Drainage Networks in Urban Areas.* American Society for Photogrammetry and Remote Sensing Annual Conference, Louisville, KY. March 23 – 27, 2014. Tammy Parece and James Campbell
- Assessing Variations in Urban Heat Island Effects within Roanoke, Virginia.* American Society for Photogrammetry and Remote Sensing Annual Conference, Louisville, KY. March 23 – 27, 2014. Tammy Parece, James Campbell, and Dave Carroll
- Helping Educators to Educate with Geospatial Technologies.* American Society for Photogrammetry and Remote Sensing Annual Conference, Baltimore, MD. March 24 – 28, 2013. Tammy Parece, James Campbell and John McGee.
- Behavior Change and Water Conservation at On-Campus Residential Halls.* 2011 Environment Virginia Symposium, Lexington, Virginia. April 6, 2011.
- Investigating the Relationship between Education and Natural Resource Consumption in University Residence Halls.* 26th Annual Graduate Student Assembly Research Symposium, Virginia Tech, Blacksburg, Virginia. March 24, 2010.
- Addressing Stormwater at the Residential Level: Citizen Education and Best Practices Implementation.* Co-author: Chris French, Alliance for the Chesapeake Bay. Virginia Lakes and Watershed Association Conference, Richmond, Virginia. March 7 – 9, 2010.
- Developing Methodology to Evaluate Urbanization's Effects on Watersheds.* 2009 American Water Resources Association Annual Conference, Seattle, Washington. November 9 – 12, 2009.
- Investigating the Relationship between Education and Water Conservation in University Residence Halls.* Tammy E. Parece & Tamim Younos. 2009 Virginia Water Resources Conference: Water Resources in Changing Climates, Richmond, Virginia. October 15 – 16, 2009.
- Stormwater Management and Water Conservation at Institutions of Higher Learning: Models for Urban Water Issues.* Tammy Parece, Tara McCloskey & Tamim Younos. 2009 Universities Council on Water Resources/The National Institutes for Water Resources Annual Conference, Chicago, Illinois. July 7 – 9, 2009.
- Service Learning Evolution: Progressing from Integration to Facilitation.* 61st Annual Meeting of the Southeastern Division of the Association of American Geographers (SEDAAG) in conjunction with the Mid-Atlantic Division of the Association of American Geographers (MADAAG). Morgantown, WV. November 19 – 21, 2006.
- Co-authored but presented by colleagues*
- VirginiaView's Geospatial Workshops.* 2012. John A. McGee, Tammy Parece, & James B. Campbell. Presented by John A. McGee. AmericaView Fall Technical Meeting, 24-25 September, USGS EROS Data Center Sioux Fall, SD.

An Analysis of the Upper Stroubles Creek Watershed Characteristics Using Geospatial Technologies. Tiffany Sprague, Tammy E. Parece & Tamim Younos. Presented by Tiffany Sprague at 2009 Virginia Water Resources Conference: Water Resources in Changing Climates, Richmond, Virginia. October 15 – 16, 2009

A Longitudinal Analysis of Urbanization Changes on Stroubles Creek: Historical Perspective. Stephanie DiBetitto, Tammy E. Parece & Tamim Younos. Presented by Stephanie DiBetitto at the 2009 Virginia Water Resources Conference: Water Resources in Changing Climates, Richmond, Virginia. October 15 – 16, 2009.

Conventional and decentralized water supply infrastructure: Energy consumption and carbon footprint. Tamim Younos, Caitlin Grady, Teresa Chen & Tammy Parece. Presented by Tamim Younos at American Water Resources Association Spring Specialty Conference, Anchorage Alaska. May 2009.

Poster Presentations

Accuracy assessment of the National Land Cover Database Impervious Surface Dataset for Roanoke, Virginia. Tammy E. Parece & James B. Campbell. 2014 GIS and Remote Sensing Research Symposium, Virginia Tech, Blacksburg, VA. April 4, 2014. 1st Place in Graduate Poster Competition.

Identifying the Extent of Urban Impervious Surfaces using Landsat Imagery. Tammy E. Parece & Dr. James B. Campbell. 2013 GIS and Remote Sensing Research Symposium, Virginia Tech, Blacksburg, VA. April 19, 2013.

Virginia's K-12 Students see their World from a New Perspective. Tammy E. Parece. Virginia Tech Engagement Showcase, Virginia Tech, Blacksburg, VA. April 17, 2013. 1st Place in Graduate Poster Competition.

Delineating drainage networks in urban areas. Tammy E. Parece & Conrad D. Heatwole. 2012 GIS and Remote Sensing Research Symposium, Virginia Tech, Blacksburg, VA. (April 13, 2012); 1st place in Poster Competition. Also presented at 28th Annual Virginia Tech GSA Research Symposium, Virginia Tech, Blacksburg, VA. (March 28, 2012); 2nd place in Poster Competition.

Urbanization and stormwater management problems in the Upper Stroubles Creek Watershed. Tammy E. Parece & Tamim Younos. 2010 Virginia Stormwater Symposium, Richmond, Virginia. October 21, 2010.

**Educating homeowners on stormwater management: Implementing a home watershed protection audit program.* Tammy E. Parece, Suzette Lyon, William Shanabruch, Chris French, & Anna Mathis. Presented by Tammy E. Parece and William Shanabruch, 2010 Virginia Stormwater Symposium, Richmond, Virginia. October 21, 2010.

An Analysis of Poverty in the Los Angeles PMSA using GIS and 2000 U.S. Census Data. Tammy E. Parece. 2010 GIS and Remote Sensing Research Symposium, Blacksburg, Virginia. April 9, 2010.

Promoting Resource Conservation Habits by Changing Attitudes, Values and Beliefs in College Students Living in University Residence Halls. Tammy E. Parece. 2009 Behavior, Energy and Climate Change (BECC) Conference, Washington, D.C. November 15 – 18, 2009.

Reedy Creek: A Prime Example of Urbanization's Detrimental Effects on Streams and Watersheds. Tammy E. Parece. Virginia Water Resources Conference: Water Resources in Changing Climates, Richmond, Virginia. October 15 – 16, 2009

Co-authored but presented by colleagues

McGee, John, J. B. Campbell, and T. E. Parece. 2014. *VirginiaView: Advancing the Geospatial Pipeline.* Poster presentation, AmericaView Fall Technical Meeting. Davis, CA. October 26-28.

**Implementing an in-stream stormwater monitoring program to measure BMP effectiveness.*
Chris French, William Shanabruch, Anna Mathis, & Tammy Parece. Presented by William Shanabruch, 2010 Virginia Stormwater Symposium, Richmond, Virginia. October 21, 2010.

*Posters re-presented by request at the Virginia Water Monitoring Council 2010 Conference – Enhance Your MS4 Program: Outreach and Monitoring Strategies for Local Governments, December 8, 2010.

Service Activities

Mentoring

Undergraduate Research Projects. Spring 2015. Department of Geography, Virginia Tech.
Students - RJ McNally, Lynn Wormeli, and Malayshia Lumpkin.
Graduate/Undergraduate Mentoring Program, Virginia Tech. Spring 2013 & 2014.
National Science Foundation – Research Experience for Undergraduates (NSF REU) – Virginia Tech. Mentor to Tiffany Sprague from James Madison University and Stephanie DiBettito from University of Vermont. Research projects - longitudinal analyses of the Upper Stroubles Creek Watershed in Blacksburg, Virginia. Research Advisor – Dr. Tamim Younos. Summer 2009

Manuscript Reviewer

Remote Sensing, 2016
Journal of Hydrology, 2016
International Journal of Sustainability in Higher Education, 2015-2016
Journal of Applied Meteorology and Climatology, 2015
On-line journal – *Sustainability*, 2015
Journal of Environmental Studies and Sciences, 2014 & 2015
IEEE Transactions on Geoscience and Remote Sensing, 2013 – 2014

Officer Positions

Vice President - Membership, Iota Delta Rho - the Interdisciplinary Research Honor Society – 2011- 2014
Student Representative - SouthEastern Division of the Association of American Geographers, 2013 – 2014.
Treasurer – Alpha Epsilon Lambda, Virginia Tech Graduate Academic Excellence and Leadership Honor Society, 2012 – 2013, 2014 - 2015
Graduate President – Geographic Society of Virginia Tech, 2009 -2010, 2011 – 2013
Graduate President – Virginia Tech Chapter of the American Water Resources Association, 2009/2010

Other

Judge for Graduate Poster Competition - 2016 GIS and Remote Sensing Research Symposium, Virginia Tech, Blacksburg, VA. April 8, 2016.
Poster and Oral Presentation Abstract Reviewer: Interdisciplinary Research Awards for the Graduate Student Assembly Research Symposium, March 24, 2016.
Judge for Web Mapping Presentations and Moderator for two different paper sessions. October 20, 2015. 26th Annual Virginia GIS Conference, Charlottesville Virginia.
Judge for Undergraduate Poster Competition - 2013 GIS and Remote Sensing Research Symposium, Virginia Tech, Blacksburg, VA. April 19, 2013.
Grant Application Reviewer. Spring 2011 & 2013 and Fall 2011 & 2014 Graduate Research Development Program

Abstract Reviewer: Graduate Student Assembly Research Symposium, March 23, 2011.
Interdisciplinary Research Symposium, November 4, 2011 & IDR Day Research Symposium
February 26, 2015.

Invited Speaking Engagements

Virginia Commonwealth University, College of Humanities and Sciences' Bachelors of
Interdisciplinary Studies Commencement Address. *The Meaning of Interdisciplinary
Studies*. December 11, 2010
Campus-Community Partnership Breakfast. Reynolds Community College, University of
Richmond, Virginia Union University and Virginia Commonwealth University. Held at
University of Richmond, Richmond, Virginia.

Outreach and Engagement

Virginia Geographic Alliance K-12 Teacher Workshop. April 30, 2016, Virginia Tech,
Blacksburg, VA. Remote sensing and weather educational resources related to the Children's
Museum exhibit noted below.

Blacksburg Children's Museum. 2015 – 2016. VirginiaView remote sensing children's activity to
include: (1) a 10 x 15 ft. Landsat 8 wall mural of the New River Valley region, (2) a 10 x 10
ft. Landsat 8 carpet map of the Chesapeake Bay and New River Watersheds, (3) light tables
with aerial imagery, and (4) an outdoor weather station with indoor software and internet
connectivity.

<http://www.vtnews.vt.edu/articles/2016/02/022516-cnre-geospatialexhibit.html>

Roanoke Virginia City Public Schools. 2013 – present. In 2013, 11 weather stations were
installed in individual schools, to support my dissertation research, funded by my scholarship
and grant resources. Once installed, software and connectivity to the internet was completed
with the assistance of Virginia Tech Meteorology students, and maintenance of the software
and connectivity has continued to date. Two manuals for teacher use of 1) weather station
software and 2) WeatherUnderground website have been completed. Highlighted in Virginia
Tech News at: <http://www.vtnews.vt.edu/articles/2014/02/021014-cnre-weatherstations.html>.

Grayson County Extension Program – Career Immersion Day for Grayson County High School
Students. July 18, 2015. Geospatial – GIS and Remote Sensing Activities.

Virginia Science Festival, Virginia Tech, Blacksburg, VA. September 26, 2015 & October 4,
2014. Remote Sensing and GIS hand-on activities.

Kids Tech University. Annual program for middle school students at Virginia Tech, Blacksburg,
VA

- February 27, 2016, February 22, 2014, January 26, 2013, & February 25, 2012. *Looking Down is Looking Up: Why do we work with aerial photography?* GIS and Remote Sensing hands on activities.
- March 23, 2013. *Mapping Home: The Importance of Place and Space*. Used a Geography Bee type activity to introduce cultural definitions of place, space, and the natural environment.
- February 23, 2013. *Our Changing Planet*. Introduced students and parents to on-line geospatial tools and their use in evaluating anthropogenic and natural changes over time.
- March 24, 2012. *Tracking the geographical spread of disease: how and why diseases seem more prevalent in today's globalized world*.
- March 28, 2009. Conducted watershed and wetland demonstration using Enviroscape® Model.
- February 28, 2009. Team leader for 10 middle school students.

Reedy Creek Coalition: clean-up activities, environmental education, home watershed audit program, GIS analysis of the watershed, preparing maps for use by the Coalition, assisting in grant proposals, monthly meetings, and manning booths at different events throughout the city. 2005 – present.

Friends of Forest Hill Park: clean-up activities and environmental education. 2009 – 2013.

Virginia Waterways Cleanup. Site supervisor 2007, 2008, 2010, 2011

Stroubles Creek Stream Restoration Project. 2009

Master Naturalist Educator – Water quality and macroinvertebrate indicators. 2009

Virginia Save our Streams Chapter of the Isaak Walton League Regional Trainer – Eastern Muddy Bottom Method and Water Quality Monitor. 2007 – 2010.

City of Richmond, 9th Council District Community Clean-up Projects. Attended organizational meetings, assisted with community clean ups, supervised clean-up activities at the Beaufont Hills Wetlands, provide resources for clean-up activities and assisted in engaging the Commonwealth of Virginia Department of Environmental Quality in addressing an illegal dump within the District. 2007 – 2009

Seven Hills Middle School: Led a team of university and middle school students on watershed education, clean-up activities and water quality testing on Reedy Creek, Richmond, Virginia. 2007 - 2008

World Water Monitoring Day – water testing for streams in the City of Richmond. 2007 – 2008.

Miles J. Jones Elementary School and After School Program, Richmond, Virginia: environmental education activities including an environmental festival covering water, watersheds and wetlands. 2007 – 2008.

Honor Society Memberships

Sigma Xi, The Scientific Research Society, 2012

Iota Delta Rho, Interdisciplinary Research Honor Society, Founding Member, 2011

Gamma Sigma Delta, Honor Society of Agriculture, 2010

Alpha Epsilon Lambda, Academic Excellence and Leadership Honor Society, Alpha Xi Chapter at Virginia Polytechnic Institute and State University, 2010

Phi Kappa Phi, The Honor Society, Virginia Commonwealth University Chapter #193, 2007

Gamma Theta Upsilon, The International Geographical Honor Society, 2002

Professional Affiliations

Colorado Geographic Alliance, 2016

American Society for Photogrammetry and Remote Sensing, 2012

Association of American Geographers, 2008

National Geographic Education Network, 2007

National Council for Geographic Education, 2007

Virginia Geographic Alliance, 2007

Southeastern Division of the Association of American Geographers, 2006

American Association of University Women, 2006

Professional Development

2016 Incorporating Weather and Climate into GIS Curricula. NCAR Workshop. July 6 – 9, 2016, Boulder Colorado.

2016 Early Career Conference, May 15-18, 2016. Lafayette, Louisiana. Grosvenor Center for Geographic Education and National Center for Research in Geography Education.

- Geoprogessions Workshop. October 2015, Washington D.C. Association of American Geographers.
- Virginia Tech Faculty Development Institute. MATLAB Programming Techniques. 2013
- Conflict of Interest Training. Virginia Tech Office of Research. August 10, 2012.
- Virginia Tech Faculty Development Institute.
- Integrating Service-Learning into NSF Broader Impact Requirements, March 31, 2012
 - Designing and Assessing Community-Engaged Learning, March 3, 2012
 - Service-learning as an Engaged Learning Pedagogy Workshop, February 12, 2012
- Virginia Citizens for Water Quality Summit, University of Virginia, Charlottesville, VA, 2008 & 2009.
- Preparing Future Faculty Seminar in College Teaching, Preparing Future Faculty & Preparing Future Faculty Seminar – Active Learning. – The Academic Profession. Virginia Commonwealth University, 2007.
- Clean Virginia Waterways Train the Trainer Rain Barrel Workshop. Longwood University and the Piedmont Soil and Water District. Farmville, Virginia. 2007.
- Wetland Education Workshop (WETMAAP). Virginia Geographic Alliance, U.S. Geological Survey's National Wetlands Research Center and Chadron State College. Richmond, Virginia. 2007.
- Virginia Save Our Streams Chapter of the Isaak Walton League Water Quality Monitor Training. 2007.
- CITI Course in The Protection of Human Research Subjects. 2007.
- Project Wet Educators Workshop. 2007.
- Project Learning Tree and Virginia's State Parks Your Backyard Classrooms – Chesapeake Edition Educators Workshop. 2007.
- Shenandoah Valley Environmental Educator Training Workshop, including Virginia's State Parks Your Backyard Classrooms – Mountain Edition. 2007.
- National Sciences Foundation Workshop on Grants. Virginia Commonwealth University Office of Research Services. 2007.