

# Craig A. Ramseyer

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## EDUCATION

2016 Ph.D. in Geography – University of Georgia, Athens, GA.  
2011 M.S. in Geography – University of Georgia, Athens, GA.  
2009 B.S. in Geography with Honors and Distinction – James Madison University, Harrisonburg, VA.

## ACADEMIC APPOINTMENTS

2019–present Assistant Professor (tenure-track), Virginia Polytechnic Institute and State University, Department of Geography  
2016–2019 Assistant Professor (tenure-track), Salisbury University, Department of Geography and Geosciences  
2014–2016 Graduate Research Assistant, University of Georgia, NSF Luquillo LTER  
2011–2014 Graduate Teaching Assistant, University of Georgia  
2011–2012 Graduate Teaching Assistant Coordinator, University of Georgia  
2009–2011 Graduate Research Assistant, University of Georgia, USDA Forest Service  
2008–2009 Undergraduate Research Assistant, CISAT, James Madison University  
2007–2008 Teaching Assistant, CISAT, James Madison University

## PUBLICATIONS

### *Peer-Reviewed Journal Articles*

2020 Miller, P.W. and C.A. Ramseyer: Did the Climate Forecast System anticipate the 2015 Caribbean drought? *Journal of Hydrometeorology*, (Revised and resubmitted).

2019 **Ramseyer C.A.**, T.L. Mote, and P.W. Miller: Future Precipitation Variability during the Early Rainfall Season in the El Yunque National Forest. *Science of the Total Environment*, 661, 326–336, doi:10.1016/j.scitotenv.2019.01.167.

2019 Miller, P.W., Mote, T.L., **Ramseyer, C.A.**: An empirical study of the relationship between seasonal precipitation and thermodynamic environment in Puerto Rico. *Wea. Forecasting*, 34, 277–288, doi: 10.1175/WAF-D-18-0127.1.

2018 **Ramseyer, C.A.** and T.L. Mote: Empirical Downscaling of Historical Rainfall in Northeast Puerto Rico using Self-Organizing Maps. *International Journal of Climatology*, 38, e224–e236, doi:10.1002/joc.5364.

2018 Miller, P.W., T. L. Mote, **C. A. Ramseyer**, A. E. Van Beusekom, M. A. Scholl, and G. González: A 42-yr Inference of Cloud Base Height Trends in the Luquillo Mountains of Northeastern Puerto Rico. *Climate Research*, 76, 87–94, doi:10.3354/cr01529.

2017 Mote, T.L., **C.A. Ramseyer**, and P. W. Miller: The Saharan Air Layer as an Early Rainfall Season Suppressant in the Eastern Caribbean: The 2015 Puerto Rico Drought. *Journal of Geophysical Research – Atmospheres*, 122, 10966–10982, doi: 10.1002/2017JD026911.

- 2016 Mattingly, K.S., **C.A. Ramseyer**, J.J. Rosen, T.L. Mote, and R. Muthyala: Increasing water vapor transport to the Greenland Ice Sheet revealed using Self-Organizing Maps. *Geophys. Res. Lett.*, 43, 9250–9258 doi: 10.1002/2016GL070424.
- 2016 **Ramseyer, C.A.** and T.L. Mote: Atmospheric Controls on Puerto Rico precipitation using Artificial Neural Networks. *Clim. Dyn.*, 1–10, doi: 10.1007/s00382-016-2980-3.
- 2013 Gensini, V. A., **C. A. Ramseyer**, and T. L. Mote: Future convective environments using NARCCAP. *Int. J. Clim.*, 34, 1699–1705, doi: 10.1002/joc.3769.
- 2010 Grundstein, A., **C. Ramseyer**, F. Zhao, J.L. Pesses, P. Akers, A. Qureshi, L. Becker, J.A. Knox, and M. Petro: Retrospective Analysis of American Football Hypothermia Deaths in the United States, *Intl. J. Biometeorology*, 56, 11–20, doi: 10.1007/s00484-010-0391-4.

### ***Other Publications***

- 2016 **Ramseyer, C.A.**, 2016: The Response of Drought and Precipitation Variability to Regional Climate Forcing in Northeast Puerto Rico, Submitted in partial fulfillment of Doctor of Philosophy degree in Geography at University of Georgia, Athens, GA. 157 pp.
- 2011 **Ramseyer, C.A.**, 2011: Forest Fire Aerosol Forcing of Precipitation along the U.S. South Atlantic Coast, Submitted in partial fulfillment of Master of Science degree in Geography at University of Georgia, Athens, GA. 132 pp.
- 2009 **Ramseyer, C.A.**, 2009: Analyzing Spatial Trends between the El Nino Southern Oscillation and United States Tornadoes using GIS, Submitted in partial fulfillment of Bachelor of Science degree with Honor's Distinction in Geographic Science at James Madison University, Harrisonburg, VA. 57 pp.

### **SCHOLARLY PRESENTATIONS (student co-authors underlined)**

- 2020 **C.A. Ramseyer**, A.W. Black, and R. Oliver: Future Changes in Hazardous Wet-bulb Temperatures in the Southeast U.S., *116<sup>th</sup> American Association of Geographers Annual Meeting*, Denver, CO.
- 2020 P.W. Miller and **C.A. Ramseyer**: Did the Climate Forecast System anticipate the 2015 Caribbean Drought? *116<sup>th</sup> American Association of Geographers Annual Meeting*, Denver, CO.
- 2020 Maier, K.J. and **C. A. Ramseyer**: The CLOUDS of Climate Change: Climate Objective Understanding and Dismissiveness Scale- Preliminary, *2020 Annual Convention of the American Psychological Association*, Washington D.C.
- 2019 **Ramseyer, C.A.** and P.W. Miller: A Climatology of the Trade Wind Inversion in the Caribbean, *115<sup>th</sup> American Association of Geographers Annual Meeting*, Washington D.C.
- 2019 Parnell, D.B. and **C.A. Ramseyer**: An Indian Summer Climatology across the Northeast United States, 1950-2015, *115<sup>th</sup> American Association of Geographers Annual Meeting*, Washington D.C.
- 2018 **Ramseyer, C.A.**, P.W. Miller, and T.L. Mote: Statistical Downscaling of CMIP5 data to predict future dry day frequency in the El Yunque National Forest, *2018 Annual AGU Fall Meeting*, Washington, D.C. AGU.
- 2018 Miller, P.W., T.L. Mote, and **C.A. Ramseyer**: Future Precipitation Variability during the Luquillo Mountains' Early Rainfall Season, *Annual Meeting of the Luquillo LTER*, International Institute of Tropical Forestry, San Juan, PR. NSF.

- 2018 **Magness, M.** and **C.A. Ramseyer**: Investigation and Analysis in to the Atmospheric Mechanisms that produced the Salisbury, Maryland Tornado, *17<sup>th</sup> Annual Salisbury University Student Research Conference*, Salisbury, MD, Salisbury University Office of Undergraduate Research and Creative Activities.
- 2018 **Banks, A.** and **C.A. Ramseyer**: Application of Self Organizing Maps to Winter Precipitation on the Delmarva Peninsula, *17<sup>th</sup> Annual Salisbury University Student Research Conference*, Salisbury, MD, Salisbury University Office of Undergraduate Research and Creative Activities.
- 2018 **Banks, A.** and **C.A. Ramseyer**: Application of Self Organizing Maps to Winter Precipitation on the Delmarva Peninsula, *114<sup>th</sup> American Association of Geographers Annual Meeting*, New Orleans, LA, Association of American Geographers.
- 2018 **Ramseyer, C.A.**, T.L. Mote, and P.W. Miller: Future Rainfall Variability during the Early Rainfall Season in Puerto Rico, *114<sup>th</sup> American Association of Geographers Geographers Annual Meeting*, New Orleans, LA, Association of American Geographers.
- 2017 **Ramseyer, C.A.**, T.L. Mote, and P.W. Miller: On the Role of the Saharan Air Layer in the 2015 Puerto Rico Drought, *113<sup>th</sup> American Association of Geographers Annual Meeting*, Boston, MA, Association of American Geographers.
- 2016 Mote, T.L., **C. A. Ramseyer**, P.W. Miller: On the Role of the Saharan Air Layer in the 2015 Puerto Rico Drought, *71<sup>st</sup> Southeastern Division of the American Association of Geographers Annual Meeting*, Columbia, SC, SEDAAG.
- 2016 **Ramseyer, C.A.** and T.L. Mote: Climate Downscaling of CMIP5 GCM Simulations to northeast Puerto Rico Precipitation Variability and Drought, *112<sup>th</sup> American Association of Geographers Annual Meeting*, San Francisco, CA, Association of American Geographers.
- 2016 **Ramseyer, C.A.** and T.L. Mote: Historical Caribbean Synoptic types and Downscaling to Northeast Puerto Rico Precipitation Variability using Self-Organizing Maps, *28<sup>th</sup> Conference on Climate Variability and Change, 96<sup>th</sup> American Meteorological Society Annual Meeting*, New Orleans, LA, American Meteorological Society. 601.
- 2015 **Ramseyer, C. A.** and T.L. Mote: Performance of Atmospheric Predictor Variables in Statistical Downscaling of Precipitation in Puerto Rico, *111<sup>th</sup> American Association of Geographers Annual Meeting*, Chicago, IL, Association of American Geographers, 1578.
- 2015 **Ramseyer, C.A.**, T.L. Mote: Historical and Future Precipitation Variability in Northeast Puerto Rico, *Annual Meeting of the Luquillo LTER*, International Institute of Tropical Forestry, San Juan, PR. NSF.
- 2014 **Ramseyer, C.A.**, T.L. Mote: Climate Change and Precipitation Variability in the LUQ LTER, *Annual Meeting of the Luquillo LTER*, San Juan, PR. NSF.
- 2014 **Ramseyer, C. A.**: Historical Precipitation Variability in Northeast Puerto Rico and Reconstruction of Synoptic Types, *110<sup>th</sup> American Association of Geographers Annual Meeting*, Tampa, IL, Association of American Geographers, 3441.
- 2014 **Ramseyer, C. A.**, J.A. Knox, J. Rackley, and A.W. Black: Superstorm Sandy's Social Media Surge in Twitter: A Three-Dimensional Analysis, *Superstorm Sandy and the Built Environment: New Perspectives, Opportunities, and Tools; 94<sup>th</sup> American Meteorological Society Annual Meeting*, Atlanta, GA, American Meteorological Society, 863.
- 2014 **Ramseyer, C. A.**, Y. Wang, J. Vanxel, J.M. Shepherd, and J.A. Knox: Analyzing U.S. fatalities from Superstorm Sandy using Socioeconomic and Exposure Metrics, *Superstorm Sandy and the Built Environment: New Perspectives, Opportunities, and Tools; 94<sup>th</sup> American Meteorological Society Annual Meeting*, Atlanta, GA, American Meteorological Society, 862.

- 2013 **Ramseyer, C.A.**, T.L. Mote: The role of climate change on the ecosystems of the Luquillo Long-Term Ecological Research Site, *Annual Meeting of the Luquillo LTER*, San Juan, PR. NSF.
- 2013 Gensini, V. A., **C.A. Ramseyer**, and T. L. Mote: Examining future severe weather environments using data from the NARCCAP. *25th Conference on Climate Variability and Change; 93rd AMS Annual Meeting*, Austin, TX, American Meteorological Society, 3A.2.
- 2011 **Ramseyer, C.A.** and T.L. Mote: Forest Fire Aerosol Forcing of Precipitation Along the U.S. South Atlantic Coast. *66<sup>th</sup> Annual Meeting of the Southeastern Division of Association of American Geographers*, Athens, GA, Masters Honors Session 11.21.11
- 2011 Gensini, V. A., **C.A. Ramseyer**, and T. L. Mote: Examining future severe weather environments in the Southeast U.S. *6th International Conference on Wind & Trees*, Athens, GA, IUFRO Section 8.03.06.

### **SUPERVISION OF STUDENT RESEARCH**

- 2018 Research Advisor to Ms. Alison Banks, Salisbury University  
Topic: Application of Self Organizing Maps to Winter Precipitation on the Delmarva Peninsula.
- 2018 Research Advisor to Mr. Maximilian Magness, Salisbury University  
Topic: Investigation and Analysis in to the Atmospheric Mechanisms that produced the Salisbury, Maryland Tornado.

### **GRANTS**

#### ***Awarded, external***

- 2017–2018 Ramseyer, C.A. (*Senior Consultant*). Future Precipitation Variability in the El Yunque National Forest. National Science Foundation: Luquillo Long-Term Ecological Research Site. \$5,000.

#### ***Awarded, internal***

- 2017–2018 Ramseyer, C.A. (*PI*). Regional Atmospheric Influences on Winter Precipitation Type on Delmarva Peninsula. Salisbury University Undergraduate Research Mini-Grant. \$3,000.

#### ***Under Review, external***

- 2020–2023 Ramseyer, C.A. (*Co-PI*). Understanding the Mechanisms Leading to Early Warning of Meteorological and Hydrological Drought in the U.S. Caribbean. National Oceanic and Atmospheric Administration. \$507,198. (Ramseyer: \$154,367).

### **HONORS AND AWARDS**

- 2017–2018 Salisbury University Honors College Faculty Fellow
- 2016 1<sup>st</sup> Place Student Poster Presentation, 96<sup>th</sup> American Meteorological Society Annual Meeting, New Orleans, LA
- 2013 Outstanding Teaching Assistant Award, University of Georgia
- 2011 Masters Honors Paper Finalist, SEDAAG
- 2009 Best Geographic Science Thesis Award, James Madison University
- 2007 Integrated Science and Technology Roop Scholarship, James Madison University

### **TEACHING EXPERIENCE**

Virginia Tech

GEOG 4504: Synoptic Meteorology  
GEOG 4984: Atmospheric Data Analysis and Programming

Salisbury University

GEOG 317: Atmospheric Data Analysis and Programming  
GEOG 389: Great Plains Thunderstorm Laboratory Field Course  
HONR 212: Climate Change in the Chesapeake Bay Region (Honors College)  
GEOG 314: Tropical Meteorology  
GEOG 105: Introduction to Physical Geography (with laboratory)  
GEOG 107: Weather, Hazards, and Climate Change  
GEOG 415: Selected Problems  
GEOG 422: Readings in Geography

University of Georgia

GEOG 1112: Introduction to Weather and Climate (with laboratory)

**SERVICE**

***University***

2019 Dean of Henson School of Science and Technology Search Committee  
2018 Invited keynote speaker, Salisbury University Research Day  
2018 Honors College Dean Search Committee: Dr. Andrew Martino  
2018–2019 Faculty Advisor, Salisbury University Club Baseball Team  
2018 Invited lecturer, PSYC 425/HONR 311 Psychology and Global Climate Change  
2018 Invited lecturer, IDIS 280 Responding to Climate Change Seminar  
2017–2018 Member, Salisbury University Goldwater Scholarship Advisory Panel  
2017–2018 Honors College Faculty Fellow  
2017–2019 Undergraduate Graduation Marshal  
2016–2018 Member, First Year Experience Steering Committee for New General Education Program  
2016–2017 Council of University System of Maryland Faculty (CUSF) - Elected Member

***College***

2018 Research and Faculty Development Committee  
2017–2019 Henson School Curriculum Committee  
2017–2019 High Performance Computing Laboratory Steering Committee  
2018 High Performance Computing Laboratory Administrator Search Committee Member: Richard Quackenbush  
2016–2018 Henson Safety Committee

***Department***

2019– Undergraduate Curriculum Committee Member, Department of Geography, Virginia Tech  
2018–2019 Faculty Advisor, Salisbury University Student Chapter of the American Meteorological Society  
2017–2019 Chair, Department of Geography and Geoscience Curriculum Committee

2017–2019 Department of Geography and Geosciences Webmaster  
2017–2018 Programming and Installation of Augmented Reality Sandboxes for Departmental laboratory courses.

### ***Other Professional***

2019– Journal Reviewer, *Dendrochronologia*  
2018– Journal Reviewer, *Climate Research*  
2018 Judge, Outstanding Student Presentation Awards, American Geophysical Union Fall Meeting, Washington D.C.  
2016 Journal Reviewer, *International Journal of Planning and Sustainable Development*  
2014 Invited Panelist, James Madison University ISAT 20<sup>th</sup> Anniversary  
2014–2015 Paper Judge, University of Georgia Geography Undergraduate Research Conference

### ***Public***

2016–2018 Invited Speaker (“Weather and Climate”), Worcester County School District  
2017–2018 Instructor, Delmarva Boy Scout Council Merit Badge College Instructor – Weather and Climate  
2017 Invited Speaker (“Climate Change on the Delmarva Peninsula”), Lunch and Learn, Ocean City, MD  
2011–2015 Invited Speaker (“Weather and Climate”), Clarke County School District  
2005 Participant, Alternative Spring Break – Hurricane Katrina Volunteer Service (Biloxi, MS), James Madison University

### ***Media Engagements***

2018 Interviewed by NASA about ongoing research on Puerto Rico, the Saharan Air Layer, and 2015 Caribbean drought (<https://earthdata.nasa.gov/user-resources/sensing-our-planet/out-of-africa>)  
2018 Interviewed by WBOC (Salisbury) about leading Salisbury University’s inaugural Great Plains Thunderstorm Laboratory Field Course  
2017 Interviewed by WBOC (Salisbury) about Salisbury University Department of Geography and Geosciences Atmospheric Science courses  
2017 Article by Oak Ridge National Laboratory Distributed Active Archive Center for Biogeochemical Dynamics discussing our publication on Saharan Dust and Puerto Rico drought.

### ***Professional Affiliations***

2011–present American Meteorological Society (AMS)  
2012–present American Association of Geographers (AAG)  
2012–present Climate Specialty Group (AAG)  
2018–present American Geophysical Union (AGU)

### **COMPUTER SKILLS**

MATLAB; NCAR Command Language; Linux/Unix; Python; Shell Scripting; NCO; CDO; ArcGIS; HTML5/CSS; IDL; Fortran