# Craig A. Ramseyer

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## EDUCATION

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| 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

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| 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*

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)

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, *17th 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, *17th 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, *114th 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, *114th 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, *113th 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, *71st 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, *112th 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, *28th Conference on Climate Variability and Change, 96thAmerican 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, *111th 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, *110th 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; 94th American Meteorological Society Annual Meeting*, Atlanta, GA, American Meteorological Society, 863.

2014 **Ramseyer, C. A.**, Y. Wang, J. Vanexel, 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; 94th 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. *66th 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 ($5000).

### *Awarded, internal*

2017–2018 Ramseyer, C.A. (*PI*). Regional Atmospheric Influences on Winter Precipitation Type on Delmarva Peninsula. Salisbury University Undergraduate Research Mini-Grant, ($3000).

## HONORS AND AWARDS

2017–2018 Salisbury University Honors College Faculty Fellow
2017 Henson School of Science & Technology Faculty Travel Award, Salisbury University
2016 1st Place Student Poster Presentation, 96th 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 3504: Synoptic Meteorology

*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*

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| 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*

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| 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*

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*

2018–2019 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 20th 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