

# NATALIE G. TEALE

September 2020

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## Education

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- 2020 **Ph.D.** (program completion certified June 1, 2020; diploma to be dated October 1, 2020)  
Geography: Rutgers University, New Brunswick, NJ  
Dissertation: *Investigating the relationship between atmospheric moisture transport and precipitation in the eastern United States*  
Advisor: Dr. David A. Robinson  
Certificates: *Improving Classroom Skills*: Rutgers University TA Project  
*Earth Systems Science*: Rutgers University Institute of Earth, Ocean, and Atmospheric Sciences
- 2015 **M.S.** Geography: Texas A&M University, College Station, TX  
Thesis: *Hydroclimatic conditions associated with rapid flooding in watersheds of the New York City water supply system*  
Advisor: Dr. Steven Quiring
- 2012 **B.A.** (Honors, *Summa Cum Laude*) Earth Sciences, Geography: Syracuse University, Syracuse, NY.  
Honors Capstone: *A characterization of baseline groundwater quality in the New York Southern Tier for Project SWIFT (Shale-Water Interaction Forensic Tools)*  
Advisor: Dr. Gregory Hoke

## Refereed Publications

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- 2020 **Teale, N.**, D. A. Robinson. Pathways of water vapor in the northeastern United States (in press, *Journal of Hydrometeorology*)
- 2020 **Teale, N.** "Hydroclimatology and Climate Variability." In Oxford Bibliographies in Geography. Ed. Barney Warf. New York: Oxford University Press.
- 2017 **Teale, N.**, S. Quiring, T. Ford. Association of synoptic-scale atmospheric patterns with flash flooding in watersheds of the New York City water supply system. *International Journal of Climatology*. DOI: 10.1002/joc.4709

- 2014 **Teale, N.**, H. Mayhan, S. Bleakney, A. Berger, N. Shibley, O. Frauenfeld, S. Quiring, A. Rapp, B. Roark, R. Washington-Allen. Impacts of Vegetation and Precipitation on Throughfall Heterogeneity in a Tropical Pre-Montane Transitional Cloud Forest. *Biotropica*, 46(6):667-676. DOI: 10.1111/btp.12166
- 2014 Lautz, L.K., G.D. Hoke, Z. Lu, D.I. Siegel, K. Christian, J. Kessler, **N.G. Teale**. Using discriminant analysis to determine sources of salinity in shallow groundwater prior to hydraulic fracturing. *Environmental Science & Technology*, 48(16):9061–9069. DOI: 10.1021/es502244v

### Non-Refereed Publications

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- 2019 **Teale, N.**, and D. A. Robinson. A climatology of water vapor fluxes and precipitation in the northeastern United States. *99<sup>th</sup> American Meteorological Society Annual Meeting*, Phoenix, AZ. January 2019. Available online.
- 2015 **Teale, N.** Hydroclimatic Conditions Associated with Rapid Flooding in Watersheds of the New York City Water Supply System. M.S. Thesis. *Texas A&M University*. 199 pp.

### Manuscripts in Preparation or Under Review

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- Teale, N.**, D. A. Robinson. A historical analysis of water vapor fluxes in the eastern United States (in preparation)
- Teale, N.**, D. A. Robinson. Characterization of precipitation variability in the eastern United States through a water vapor flux approach (in preparation)

### Fellowships and Scholarships

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- 2017-2020 **Excellence Fellowship.** School of Arts and Sciences, Rutgers University.....\$23000/year, plus tuition and benefits
- 2015-2019 **Presidential Fellowship Supplement.** The Graduate School, Rutgers University.....\$15000/year
- 2017 **MaGrann Field Research Award.** MaGrann Geography Field Research Fund, Department of Geography, Rutgers University.....\$550
- 2015-2016 **Institute of Earth, Ocean, and Atmospheric Sciences Fellowship.** Institute of Earth, Ocean, and Atmospheric Sciences, Rutgers University .....\$23000, plus tuition and benefits
- 2013-2014 **Lechner Graduate Scholarship.** College of Geosciences, Texas A&M University.....\$3000

## Awards

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- 2019 **Graduate Student Research Excellence Award.** Department of Geography, Rutgers University
- 2019 **Graduate Student Teaching Excellence Award.** Department of Geography, Rutgers University
- 2019 **Student Presentation Award- Second Place Oral Presentation.** 33<sup>rd</sup> Conference on Hydrology at the American Meteorological Society
- 2016 **Student Paper Competition Honorable Mention.** Climate Specialty Group of the Association of American Geographers
- 2015 **Outstanding Student Paper Award.** Hydrology Section of the American Geophysical Union
- 2013 **Estwing Award.** Department of Earth Sciences, Syracuse University
- 2013 **National Council for Geographic Education Outstanding Geography Student Award.** Department of Geography, Syracuse University

## Research Appointments

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- Research Assistant** Jun. 2020- Jul. 2020  
Rutgers University President's Task Force on Carbon Neutrality and Climate Resilience, Working Group 6: Climate Preparedness. (Group Lead: Dr. R. Leichenko)
- Graduate Research Assistant** Jan. 2014- Jul. 2015  
Assistant to the Director of the Environmental Grand Challenge, Texas A&M University (Director: Dr. S. Quiring)
- Graduate REU Assistant** May 2013- Aug. 2013  
Ecohydrology of a Tropical Montane Cloud Forest, Texas A&M University Soltis Center for Research and Education, San Isidro de Peñas Blancas, Alajuela, Costa Rica; College Station, TX, USA (PI: Dr. C. Houser)
- Geospatial Analyst** Feb. 2013- Apr. 2013  
Galápagos Tortoise Movement Ecology Programme, Charles Darwin Research Station, Puerto Ayora, Galápagos, Ecuador (PI: Dr. S. Blake)
- Undergraduate Research Assistant** Aug. 2012- Dec. 2012  
Project SWIFT: Shale-Water Interaction Forensic Tools, Department of Earth Sciences, Syracuse, NY (PIs: Dr. L. Lautz, Dr. G. Hoke, Dr. D. Siegel, Dr. Z. Lu)
- Undergraduate REU Researcher** May 2012- Aug. 2012

Ecohydrology of a Tropical Montane Cloud Forest, Texas A&M University Soltis Center for Research and Education, San Isidro de Peñas Blancas, Alajuela, Costa Rica; College Station, TX, USA (PI: Dr. C. Houser)

## Teaching Experience

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### University of Tennessee, Department of Geography

- F. 2020      **Lecturer**  
Course: GEOG 131 “*Weather, Climate, and Climate Change*”  
(enrollment: 151; 150)  
Course: GEOG 137: “*Honors Weather, Climate, and Climate Change*”  
(enrollment: 10)  
Course: GEOG 331: “*Natural Hazards*” (enrollment: 45)

### Rutgers University, Department of Geography

- Su. 2019      **Instructor, part time**  
Online Course 01:450:101 “*Earth Systems*” (enrollment: 27)
- Su. 2018      **Instructor, part time**  
Online Course 01:450:101 “*Earth Systems*” (enrollment: 25)
- Sp. 2018      **Instructor, part time**  
Course 01:450:101 “*Earth Systems*” (enrollment: 200)
- Sp. 2017      **Teaching Assistant**  
Course 01:450:101 “*Earth Systems*”
- F. 2016      **Teaching Assistant**  
Course 01:450:321 “*Introduction to Geographic Information Systems*”

### Texas A&M University, Department of Geography

- F. 2013      **Teaching Assistant**  
Course GEOG 203 “*Planet Earth*” (Lab enrollment: ~25 each; 3 sections)

## Invited Talks

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- 2019      **Teale, N.** Understanding Precipitation Variability in the Eastern United States through Moisture Fluxes. *Atmosphere, Ocean, and Climate Dynamics Seminar Series*, Department of Geology & Geophysics, Yale University. 7 November 2019.

## Conference Talks

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\*denotes presenting author

- 2020 **(accepted) Teale, N.\***, D. Robinson. Characterization of the relationship between water vapor fluxes and the precipitation regime of the eastern US. Paper accepted for presentation at the Annual Meeting of the American Association of Geographers 2020, Denver, CO, USA. ....*Meeting cancelled due to COVID-19 pandemic.*
- 2020 **Teale, N.\*** D. Robinson. Spatial and Temporal Variability in the Relationship Between Water Vapor Transport and Associated Precipitation in the Eastern United States. Paper accepted for presentation at the 100<sup>th</sup> Annual American Meteorological Society, Boston, MA, USA.
- 2019 **Teale, N.\***, D. Robinson. Characterizing the relationship between water vapor transport and associated regional precipitation in the eastern United States. Paper presented at the American Geophysical Union Fall Meeting 2019, San Francisco, CA, USA.
- 2019 **Teale, N.\***, D. Robinson. Temporal Analysis of Atmospheric Moisture Pathways in the Northeastern United States. Paper presented at the American Association of Geographers Annual Meeting 2019, Washington DC, USA.
- 2019 **Teale, N.\***, D. Robinson. A climatology of water vapor fluxes in the northeastern United States. Paper presented at the 99<sup>th</sup> Annual American Meteorological Society, Phoenix, AZ, USA
- 2018 **Teale, N.\*** Association of synoptic-scale atmospheric patterns with flash flooding in watersheds of the New York City water supply system. Paper presented at the Catskills Environmental Research and Monitoring 2018 Conference, Highmount, NY, USA.....*Solicited*
- 2018 **Teale, N.\***, D. Robinson. Climatology of water vapor fluxes within the northeastern US. Paper presented at the American Association of Geographers Annual Meeting 2018, New Orleans, LA, USA.
- 2017 **Teale, N.\***, D. Robinson. (2017) Characterization of moisture transport into the northeastern United States using a self-organizing map methodology. Paper presented at the American Association of Geographers Annual Meeting 2017, Boston, MA, USA.
- 2016 **Teale, N.\***, S. Quiring, D. Robinson. Atmospheric patterns linked with flash flooding in the Catskill Mountains, NY, USA: A case study approach. Paper presented at the American Association of Geographers Annual Meeting 2016, San Francisco, CA, USA.

- 2015 **Teale, N.\***, S. Quiring. Hydrometeorological and climatological conditions associated with flash flooding in watersheds in the Catskill Mountains, New York, USA. Paper presented at the Annual Meeting of the Association of American Geographers 2015, Chicago, IL, USA.

### Conference Posters

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\*denotes presenting author

- 2017 **Teale, N.\***, D. Robinson. Assessment of atmospheric moisture transport patterns through the northeastern US, 1900-2016. Poster presented at the American Geophysical Union Fall Meeting 2017, New Orleans, LA, USA.
- 2017 Wachowicz, L.\* and **N. Teale**. The Influence of Atmospheric Rivers on the Seasonal Snowpack in the Columbia River Basin. Poster presented at the American Meteorological Association Annual Meeting 2017, Seattle, WA, USA
- 2016 **Teale, N.\***, D. Robinson. Identification of Pathways of Moisture Transport in the Northeastern United States. Poster presented at the American Geophysical Union Fall Meeting 2016, San Francisco, CA, USA.
- 2015 **Teale, N.\***, S. Quiring. Synoptic-scale atmospheric patterns associated with flash flooding in watersheds of the Catskill Mountains, NY, USA. Poster presented at the American Geophysical Union Fall Meeting 2015, San Francisco, CA, USA.
- 2014 **Teale, N.\***, S. Quiring. Hydrometeorological and climatological conditions associated with flash flooding in the Catskill Mountains, NY. Poster presented at the American Geophysical Union Fall Meeting 2014, San Francisco, CA, USA.
- 2013 **Teale, N.\***, H. Mayhan, S. Bleakney, A. Berger, N. Shibley, O. Frauenfeld, S. Quiring, A. Rapp, B. Roark, R. Washington-Allen. Impacts of Vegetation and Precipitation on Throughfall Heterogeneity in a Tropical Pre-Montane Transitional Cloud Forest. Poster presented at the American Geophysical Union Fall Meeting 2013, San Francisco, CA, USA.
- 2013 Bleakney, S.\*, **N.G. Teale**, A. Berger, H. Mahan, A.D. Rapp, O.W. Frauenfeld, S.M. Quiring, E.B. Roark. Canopy Influence on Throughfall in a Transitional Cloud Forest. Poster presented at the American Geophysical Union Fall Meeting 2013, San Francisco, CA, USA.
- 2013 Shibley, N.\*, **N. Teale**. Characterizing Spatial Variability in Precipitation and Throughfall in a Tropical Pre-Montane Cloud Forest. Poster presented at the American Meteorological Society Annual Meeting 2013, Austin, TX, USA.

- 2012 **Teale, N.\***, N. Shibley. Microscale Throughfall and Precipitation Heterogeneity in a Transitional Cloud Forest. Poster presented at the American Geophysical Union Fall Meeting 2012, San Francisco, CA, USA.
- 2012 Washington-Allen, R.\*, E. Buckwalter, G. Moore, J. Burns, A. Dennis, O. Dodge, E. Guffin, E. Morris, R. Oien, G. Orozco, A. Peterson, **N. Teale**, N. Shibley, N. Tourtellotte, C. Houser, S. Brooks, K. Brumbelow, A. Cahill, O. Frauenfeld, E. Gonzalez, C. Hallmark, K. McInnes, G. Miller, C. Morgan, S. Quiring, A. Rapp, E.B. Roark, A. Delgado, J. Ackerson, D.R. Arnott. Exploratory Water Budget Analysis of a Transitional Premontane Cloud Forest in Costa Rica through Undergraduate Research. Poster presented at the American Geophysical Union Fall Meeting 2012, San Francisco, CA, USA.

### Service

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- 2016-Present **American Meteorological Society Applied Climate Committee**  
*Position:* Student Representative (renewed in 2018)
- 2018-2019 **American Meteorological Society 2019 Annual Meeting Applied Climate Conference**  
*Position:* Co-organizer
- 2017-2019 **Association of American Geographers Climate Specialty Group**  
*Position:* Young Scholar Director
- 2017-2019 **Rutgers Gathering of Rutgers Earth, Environmental, and Natural Sciences graduate student organization**  
*Position:* Geography Department Representative
- 2016-2017 **Rutgers University Graduate Geography Project**  
*Position:* Co-President
- 2015 **Texas Junior Science and Humanities Symposium Judge**  
*Categories:* Environmental Sciences, Finals
- 2014-2015 **Texas A&M University Association of Geography Graduate Students**  
*Position:* Executive Committee
- 2014 **Texas Junior Academy of Science Judge**  
*Categories:* Earth and Space Sciences, Environmental Sciences

### Referee for Professional Journals

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- 2017, 2020 *Climate Research*
- 2016 *International Journal of Climatology*

### **Chaired, Organized, and Co-Organized Conference Sessions**

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- 2020 **Association of American Geographers (Denver, CO):**  
Hydroclimatology I, Hydroclimatology II: Extremes  
*Meeting cancelled due to COVID-19 pandemic*
- 2019 **Association of American Geographers (Washington, DC):**  
Hydroclimatology I, Hydroclimatology II, Underrepresented Groups in Geography-  
Climatology (*Panel*), Career Paths in Climatology-Geography (*Panel*)
- 2018 **Association of American Geographers (New Orleans, LA):**  
Hydroclimatology I, Hydroclimatology II, Hydroclimatology III
- 2017 **Association of American Geographers (Boston, MA):**  
Hydroclimatology I, Hydroclimatology II, Hydroclimatology III
- 2016 **Association of American Geographers (San Francisco, CA):**  
Hydroclimatology I, Hydroclimatology II, Hydroclimatology III
- 2015 **Association of American Geographers (Chicago, IL):**  
Hydroclimatology I, Hydroclimatology II

### **Teaching Preparation and Pedagogical Instruction**

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*Introduction to Online and Hybrid Teaching*, Rutgers University TA Project, Spring 2019  
(0-credit course)

*Designing Your Own Course*, Rutgers University TA Project, Fall 2018 (0-credit course)

*Integrating Instructional Methodologies for Engaged Learning*, Rutgers University TA  
Project, November 2018

*Crafting Useful and Appropriate Learning Goals*, Rutgers University TA Project,  
October 2018

*Strategies for Teaching in a Multilingual Classroom*, Rutgers University TA Project,  
September 2018

*Active Learning Boot Camp*, Rutgers University Active Learning Community, May 2017

### **Miscellaneous Travel Funding**

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- 2020 **Rutgers University School of Graduate Studies Conference Travel Program**  
Support to attend the 2020 Annual Meeting of the American Meteorological Society in  
Boston, MA: January 12-16.....\$500



- 2019 **Institute of Earth, Ocean, and Atmospheric Sciences Conference Travel Award**  
Support to attend the 2019 Annual Meeting of the American Meteorological Society in Phoenix, AZ: January 6-10.....\$500
- 2017 **Institute of Earth, Ocean, and Atmospheric Sciences Conference Travel Award**  
Support to attend the 2017 Annual Meeting of the American Geophysical Union in New Orleans, LA: December 10-14.....\$500
- 2017 **Rutgers Climate Institute Student Support Fund**  
Support to attend the 2017 Annual Meeting of the American Association of Geographers in Boston, MA: April 5-9.....\$250
- 2016 **Institute of Earth, Ocean, and Atmospheric Sciences Conference Travel Award**  
Support to attend the 2016 Annual Meeting of the American Geophysical Union in San Francisco, CA: December 18-22.....\$300

### Membership in Organizations

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<b>Professional Societies:</b>	American Meteorological Society	(2015-present)
	American Geophysical Union	(2012-present)
	Association of American Geographers	(2012-present)
	Association of Tropical Biology & Conservation	(2013-2015)

**Academic Honor Societies:** Phi Beta Kappa  
Gamma Theta Upsilon

### Professional References

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- Dr. David A. Robinson  
State Climatologist of New Jersey  
Distinguished Professor, Department of Geography, Rutgers University  
Email: david.robinson@rutgers.edu
- Dr. Anthony Broccoli  
Professor, Department of Environmental Sciences, Rutgers University  
Email: broccoli@envsci.rutgers.edu
- Dr. Steven Quiring  
Professor, Department of Geography, The Ohio State University  
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