

Johnathan W. Sugg

Assistant Professor of Geography
Department of Geography and Planning
Appalachian State University
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Education

University of North Carolina. *Chapel Hill, NC.*

Ph.D. Geography, 2017

Dissertation: *Geovisualization of Mountain Hydroclimatic Variability: Linkages between Atmospheric Circulation and the Spatial Pattern of Precipitation*

Appalachian State University. *Boone, NC.*

M.A. Geography, 2013

Thesis: *Satellite Perspectives on the Spatial Extent of New Snowfall in the Southern Appalachian Mountains*

B.S. Geography, 2008

Thesis: *A GIScience Investigation of Mass Balance Change on the Franz Josef Glacier, New Zealand*

Employment

Appalachian State University. *Boone, NC.*

Assistant Professor, Department of Geography and Planning, 2017-

Adjunct Assistant Professor, Department of Geography and Planning, 2015-2017

University of North Carolina. *Chapel Hill, NC.*

Research Associate, Southeast Regional Climate Center, 2014-2015

Graduate Assistant, Department of Geography, 2013

Appalachian State University. *Boone, NC.*

Graduate Assistant, Department of Geography and Planning, 2011-2013

Orbis, Inc. *Charlotte, NC.*

GIS Specialist, 2008-2010

Publications

* indicates student author

Kinlaw, T. K.*, J. W. Sugg, and L. B. Perry, 2019: Warm season hydroclimatic variability and change in the Appalachian Region of the southeastern U.S. from 1950 to 2018. *Atmosphere*, **10**, 289, DOI: <https://doi.org/10.3390/atmos10050289>

Sugg, J. W., and C. E. Konrad II, 2019: Defining hydroclimatic regions using daily rainfall characteristics in the southern Appalachian Mountains. *International Journal of Digital Earth*, DOI: <https://doi.org/10.1080/17538947.2019.1576785>

Eck, M. A.*, L. B. Perry, P. T. Soulé, J. W. Sugg, and D. K. Miller, 2018: Winter climate variability in the southern Appalachian Mountains, 1910-2017. *International Journal of Climatology*, **39**, 1, DOI: <https://doi.org/10.1002/joc.5795>

Sugg, J. W., and C. E. Konrad II, 2017: Relating warm season hydroclimatic variability in the southern Appalachians to synoptic weather patterns using self-organizing maps. *Climate Research*, **74**, 2, 145-160, DOI: <https://doi.org/10.3354/cr01493>

Sugg, J. W., C. M. Fuhrmann, L. B. Perry, D. K. Hall, and C. E. Konrad II, 2016: Sub-regional snow cover distribution across the southern Appalachian Mountains. *Physical Geography*, **38**, 2, 105-123, DOI: <https://doi.org/10.1080/02723646.2016.1162020>

Sugg, J. W., L. B. Perry, D. K. Hall, G. A. Riggs, and C. A. Badurek, 2014: Satellite perspectives on the spatial patterns of new snowfall in the southern Appalachian Mountains. *Hydrological Processes*, **28**, 16, 4602-4613, DOI: <https://doi.org/10.1002/hyp.10196>

Grants and Awards

Faculty Reassigned Time for Proposal Development, Appalachian State University. Historic and future changes to hydroclimatic extremes across the southeastern U.S., 2019

University Research Council Grant, Appalachian State University. The changing hydroclimatology of the southeastern U.S., \$3,168.97, 2018

1st Place, Climate Specialty Group Student Paper Competition, American Association of Geographers (AAG) Annual Meeting, San Francisco, CA, 2016

Suzanne Levy Summer Research Fellowship, University of North Carolina. \$4,000, 2015

2nd Place, Climate Specialty Group Student Paper Competition, American Association of Geographers (AAG) Annual Meeting, Chicago, IL, 2015

Graduate Student Travel Award, Department of Geography, University of North Carolina,

2014

Honorable Mention, Climate Specialty Group Student Paper Competition, American Association of Geographers (AAG) Annual Meeting, Tampa, FL, *2014*

Marcus Fund for Physical Geography, American Association of Geographers (AAG). Cordillera Vilcanota research expedition to Peru, \$2,000, *2013*

Outstanding Thesis Award in Science and Technology, Provost's Fellowship, Cratis D. Williams Graduate School, Appalachian State University, *2013*

Miller Best Student Poster Award, 69th Eastern Snow Conference, Claryville, (Frost Valley), NY, *2012*

Graduate Student Research and Travel Grants, Appalachian State University, \$1,360, *2012-2013*

Invited Presentations

Mountain hydroclimatic variability and its relationship with synoptic weather patterns. Department of Geography, Virginia Tech, Blacksburg, VA, *2018*

Geovisualization of warm season hydroclimatic extremes in the southern Appalachians. Department of Geology, Appalachian State University. Boone, NC, *2016*

Conference Presentations

Sugg, J. W., A comparison of gridded rainfall estimates for examining hydroclimatic variability. Poster presented at the 73rd Southeastern Division of the American Association of Geographers (SEDAAG) Meeting, Johnson City, TN, *2018*

Sugg, J. W., and C. E. Konrad II, Self-organizing maps as a visualization tool for understanding hydroclimatic variability. American Association of Geographers (AAG) Annual Meeting, New Orleans, LA, *2018*

Sugg, J. W., and C. E. Konrad II, Disentangling the spatiotemporal complexity of synoptic and orographic precipitation patterns in the southeastern U.S. with a self-organizing map. 71st Southeastern Division of the American Association of Geographers (SEDAAG) Meeting, Columbia, SC, *2016*

Sugg, J. W., and C. E. Konrad II, Geovisualization of hydroclimatic variability across the southeastern US: 1979-2014. Poster presented at 3rd Annual UNC-CH Climate Change Symposium. Chapel Hill, NC, *2016*

Sugg, J. W., and C. E. Konrad II, Relating mountain hydroclimatic variability to synoptic weather patterns using self-organizing maps. American Association of Geographers (AAG) Annual Meeting, San Francisco, CA, *2016*

Sugg, J. W., Mapping warm season hydroclimate extremes in the southern Appalachians. 70th Southeastern Division of the American Association of Geographers (SEDAAG) Meeting, Pensacola, FL, *2015*

Sugg, J. W., and C. E. Konrad II, Spatial characteristics of hydroclimate variability across the southern Appalachian Mountains of the southeastern U.S. American Association of Geographers (AAG) Annual Meeting, Chicago, IL, *2015*

Sugg, J. W., and C. E. Konrad II, Mapping warm season hydroclimate extremes in the southern Appalachians. Poster presented at 2nd Annual UNC-CH Climate Change Symposium. Chapel Hill, NC, *2015*

Sugg, J. W., and C. E. Konrad II, Spatial characteristics of hydroclimate variability across the Southern Appalachian Mountains of the southeastern U.S. 69th Southeastern Division of the American Association of Geographers (SEDAAG) Meeting, Athens, GA, *2014*

Sugg, J. W., C. M. Fuhrmann, L. B. Perry, D. K. Hall, and C. E. Konrad II, Sub-regional variation in fractional snow cover across the southern Appalachian Mountains. 71st Eastern Snow Conference, Boone, NC, *2014*

Sugg, J. W., L. B. Perry, and D. K. Hall, A synoptic classification of new snowfall in the southern Appalachian Mountains using MODIS fractional snow cover. American Association of Geographers (AAG) Annual Meeting, Tampa, FL, *2014*

Sugg, J. W., A. Seimon, D. Martin, L. B. Perry, C. Rodda, S. Haines, S. Sneed, and P. Mayewski, Climate-glacier interaction in the tropical Andes: field observations from the Cordillera Vilcanota, Peru. Poster presented at 68th Southeastern Division of the American Association of Geographers (SEDAAG) Meeting, Roanoke, VA, *2013*

Sugg, J. W., L. B. Perry, D. K. Hall, G. A. Riggs, and C. A. Badurek, Satellite perspectives on the spatial patterns of new snowfall in the southern Appalachian Mountains. 70th Eastern Snow Conference, Huntsville, Ontario, Canada, *2013*

Sugg, J. W., Land cover effects on snow classification in the southern Appalachian Mountains. Poster presented at 67th Southeastern Division of the American Association of Geographers (SEDAAG) Meeting, Asheville, NC, *2012*

Sugg, J. W., L. B. Perry, and D. K. Hall, Satellite and surface perspectives of snow extent in the southern Appalachian Mountains. Poster presented at 69th Eastern Snow Conference, Claryville (Frost Valley), NY, *2012*

Sugg, J. W., and C. A. Badurek, A GIScience investigation of mass balance change on the Franz Josef Glacier, New Zealand: 1990 to 2002. International Geographical Union

Meeting, Tunis, Tunisia, 2008

Arnold, J., L. B. Perry, M. Mayfield, and J. W. Sugg, A snow-related flood hydroclimatology of the southern Appalachian Mountains of North Carolina and Tennessee. 65th Eastern Snow Conference, Fairlee (Lake Morey), VT, 2008

Conference Proceedings Papers

Sugg, J. W., C. M. Fuhrmann, L. B. Perry, D. K. Hall, and C. E. Konrad II, 2014: Sub-regional snow cover distribution across the southern Appalachian Mountains. Proceedings of the 71st Eastern Snow Conference, Boone, NC

Sugg, J. W., L. B. Perry, D. K. Hall, G. A. Riggs, and C. A. Badurek, 2013: Satellite perspectives on the spatial patterns of new snowfall in the southern Appalachian Mountains. Proceedings of the 70th Eastern Snow Conference, Huntsville, Ontario, Canada

Sugg, J. W., L. B. Perry, and D. K. Hall, 2012: Satellite and surface perspectives of snow extent in the southern Appalachian Mountains. Proceedings of the 69th Eastern Snow Conference, Claryville (Frost Valley), NY

Teaching

Appalachian State University

Courses:

GHY 1010 - Introduction to Physical Geography (*Fall 2015, 2016*)

GHY 2310 - Cartographic Design and Analysis (*Fall 2017, 2018, Spring 2018, 2019*)

GHY 3000 - Communicating Geographic Information (*Fall 2017, 2018, Spring 2018, 2019*)

GHY 4812/5812 - Advanced GIS (*Spring 2018*)

GHY 5150 - Graduate Seminar in Geographic Information Science (*Fall 2018*)

WRC 1103 - Participatory Mapping and Community-based Cartography (*Fall 2016*)

WRC 1104 - The Nature and Culture of Climate Change (*Spring 2017*)

Laboratory Sections:

GHY 1011 - Global Climate Change Laboratory (*Fall 2011, 2015, 2016, 2017, Spring 2016*)

GHY 1012 - Global Change of the Biosphere Laboratory (*Fall 2012, Spring 2016, 2017*)

GHY 3310 - Environmental Remote Sensing Laboratory (*Spring 2013*)

Student Supervision

Theses Chaired

Timothy Kinlaw, M.A. in Geography, 2019, Thesis: *Warm season hydroclimatic variability in the southern Appalachian Mountains, 1955-2017.*, Committee: J. W. Sugg (Chair), L. B. Perry, S. van de Gevel, Winner of the Master's Student Poster Competition, 2018 South-eastern Division of the American Association of Geographers

Internships Chaired

Elizabeth Goughnor, M.A. in Geography, 2018
Thomas Dean, B.S. in Geography/GIS, 2018
Rachel McCoy, B.S. in Geography/GIS, 2018

Thesis Committee Membership

Matthew Wilson, M.A. in Geography, 2019
Montana Eck, M.A. in Geography, 2018

Professional Activity

Departmental Service

Search Committee for Remote Sensing and GIS Assistant Professor, Member, *2018-2019*
GIS Curriculum Committee, Member, *2017-*
Map Library Committee, Member, *2017-*
Departmental Personnel Committee, Alternate Member, *2017-*

College and University Service

Writing in the Discipline Consultant, Writing Across the Curriculum Program, *2018-2019*
Work-Life Balance Panel, Center for Academic Excellence Early Career Programs, Panelist, *2018*
University Corporation for Atmospheric Research, Annual Members Meeting, Early Career Faculty Guest, Boulder, CO, *2017*
Appalachian Orientation Weekend, Student Faculty Exchange Volunteer, *2017*
American Association of Geographers, Early Career Faculty Development Alliance, Participant. Knoxville, TN, *2017*

Affiliations

American Association of Geographers
Southeastern Division of the American Association of Geographers

Last updated on May 31, 2019