

Curriculum Vitae

Justin Timothy Maxwell

January 2015

Department of Geography
Indiana University
Bloomington, IN 47405

maxweljt@indiana.edu
(Office) 812.855.5557
(Fax) 812.855.1661

Education

2012 The University of North Carolina at Greensboro, Greensboro, NC

Doctor of Philosophy (Ph.D.) in Geography

Dissertation: Beekeepers' Gold: Reconstructing Tupelo Honey in Northwest Florida Using Nyssa ogeche Tree-Ring Data.

2008 Appalachian State University, Boone, NC

Master of Arts (M.A.) in Geography

Thesis: Drought and Other Driving Forces behind Population Change in Rural Counties in the United States.

2006 Appalachian State University, Boone, NC

Bachelor of Science (B.S.) in Business Administration (Concentration in Hospitality and Tourism and a Minor in Geography).

Research Interests

Climatology, Biogeography, Dendrochronology, and Forest Disturbances

Professional Experience

2012– *Assistant Professor*, Department of Geography, Indiana University

2011–2012 *NSF GK-12 Fellow*, Departments of Biology, Chemistry and Biochemistry, and Geography, The University of North Carolina at Greensboro. Funded by the National Science Foundation.

2011–2012 *NADEF Research Fellow*, North American Dendroecological Fieldweek. Funded by the National Science Foundation.

2011 *Adjunct Instructor*, Department of Social Sciences, Winston-Salem State University.

- 2009–2011 *Instructor and Research Assistant*, For “Radial growth response among naturally occurring western U.S. conifers under changing environmental conditions” funded by the National Science Foundation, Principal investigators: Paul Knapp and Peter Soulé
- 2008–2009 *Laboratory Instructor and Research Assistant*, Department of Geography, The University of North Carolina at Greensboro.
- 2006–2008 *Teaching/Research Assistant*, Department of Geography and Planning, Appalachian State University.

RESEARCH

Publications

* and underline a represents student author

- In Press **J.T. Maxwell**, Harley, G.L. and *Matheus, T.J. Dendroclimatic reconstructions from multiple co-occurring species: a case study from an old-growth deciduous forest in Indiana, USA. *International Journal of Climatology* DOI:10.1002/joc.4021
- 2014 J.T. Ortegren, and **Maxwell, J.T.** Characteristics of the interaction between droughts and tropical cyclones in the southeastern U.S. *Geography Compass* **8** (8): 540–559.
- 2014 J.T. Ortegren, Weatherall, A., and **Maxwell, J.T.** Subregionalization of low frequency summer drought variability in the southeastern U.S.A. *Professional Geographer* **66** (2): 323–332.
- 2013 M. Smith, Stallins, J.A., **Maxwell, J.T.**, Van Dyke, C. The complex nature of hydrological shifts and tree growth responses to river modification along the Apalachicola River, Florida. *Physical Geography* **34** (6): 491–511.
- 2013 **J.T. Maxwell**, Ortegren, J.T., Knapp, P.A., and Soulé, P.S. Tropical cyclones and drought amelioration in the Gulf and Southeastern Coastal United States. *Journal of Climate* **26** (21): 8440–8452.
- 2013 **J.T. Maxwell**, Knapp, P.A., and Ortegren, J.T. Influence of the Atlantic Multidecadal Oscillation on Tupelo Honey Production from AD 1800–2010. *Agricultural and Forest Meteorology* **174–175**: 129–134.
- 2013 P.A. Knapp, Soulé, P.T. and **Maxwell, J.T.** Mountain Pine Beetle Selectivity in Old-Growth Ponderosa Pine Forests: A Dendroecological Analysis between Live and Dead Trees in Outbreak Areas. *Ecology and Evolution* **3** (5): 1141–1148.

- 2013 H.D. Grissino-Mayer, **Maxwell, J.T.**, Harley, G.L., Garland, N.A., Holt, D.H., Absher, C., Beale, B.J., Boehm, M.S., de Graauw, K.A., Rautio, A., and Dye, A.W. Dendrochronology reveals the construction history of an early 19th century farm settlement, southwestern Virginia, USA. *Journal of Archaeological Science* **40** (1): 481–489.
- 2012 **J.T. Maxwell**, Soulé, P.T., Ortegren, J.T., and Knapp, P.A. Drought busting tropical cyclones in the southeastern Atlantic United States: 1950–2008. *Annals of the Association of American Geographers* **102** (2): 259–275.
- 2012 **J.T. Maxwell** and Knapp, P.A. Reconstructed tupelo-honey yield in northwest Florida inferred from *Nyssa Ogeche* tree-ring data: 1850–2009. *Agriculture, Ecosystems, and Environment* **149**: 100–108.
- 2011 J.T. Ortegren, Knapp, P.A., **Maxwell, J.T.**, Tyminski, W.P., and Soulé, P.T. Ocean atmosphere influence on low-frequency warm-season drought variability in the Gulf Coast and Southeastern U.S.A. *Journal of Applied Meteorology and Climatology* **50** (6): 1177–1186.
- 2011 **J.T. Maxwell**, Soulé, P.T. Drought and other driving forces behind population change in six rural counties in the United States. *Southeastern Geographer* **51** (1): 133–149.
- 2009 **J. T. Maxwell** and Soulé, P.T. United States drought of 2007: historical perspectives. *Climate Research* **38** (2): 95–104.

Submitted Manuscripts

Resubmissions

- 2014 **J.T. Maxwell**, Ficklin, D.L., Harley, G.L., and Jones, G.V. Projecting future winegrape yields using a combination of *Vitis vinifera* growth rings and soil moisture simulations, northern California, U.S.A. *Australian Journal of Grape and Wine Research* (Revise and Resubmit, Resubmitted Dec. 2014)

Initial Submissions

- 2014 D.L Ficklin, Letsinger, S.L., Gholizadeh, H., **Maxwell, J.T.** A tool to calculate Palmer drought indices using Penman-Monteith potential evapotranspiration: an update to Jacobi et al. (2013). *Computers & Geosciences* (Submitted in July 2014).
- 2014 *H.M. Mason, Ortegren, J.T., **Maxwell, J.T.**, and Tyminski, W.P. Dendrochronological analysis of Atlantic white cedar (*Chamaecyparis thyoides*) and a species variant (*henryae*) in Northwest Florida. *Dendrochronologia* (Submitted in Sept. 2014).

- 2014 **J.T. Maxwell** The benefit of including rarely used species in dendroclimatic reconstructions: a case study using *Juglans nigra* in south-central Indiana, USA. *Tree-Ring Research* (Submitted in Nov. 2014)
- 2014 D.L Ficklin, **Maxwell, J.T.** Letsinger, S.L., *Gholizadeh, H.A. climatic deconstruction of recent drought trends in the United States. *Environmental Research Letters* (Submitted in Nov. 214).
- 2014 G.L. Harley and **Maxwell, J.T.** Microtopography promotes long-term survival of a foundation species on islands in the Florida Keys. *Journal of Vegetation Science* (Submitted in Nov. 2014).

Manuscripts in Preparation

P.A. Knapp and **Maxwell, J.T.**, Ortegren, J.T., and Soulé, P.T. Climate Envy: Spatial-temporal Changes in Comfortable Weather Duration in the U.S. and Implications for Wellness. Plan on submitting in Jan. 2015. Currently Prepared: Final draft nearly complete.

G.L. Harley, King, J.S., and **Maxwell, J.T.** Trans-Atlantic connections between African dust flux and tree growth. Plan on submitting in Jan. 2015. Currently Prepared: Final draft nearly complete.

R.S. Maxwell, Harley, G.L., **Maxwell, J.T.**, Rayback, S.A., and Pederson, N. Reconstructing streamflow in the eastern U.S. Plan on submitting in Mar. 2015. Currently Prepared: Analysis complete, first draft nearly complete.

J.T. Maxwell, Knapp, P.A., Ortegren, J.T., and Soulé, P.T. Why are tropical cyclones ending droughts more frequently? Plan on submitting in Apr. 2015. Currently prepared.:Analysis ongoing.

Grants, Honors, and Awards

2011–2012 *GK-12 Fellowship*, National Science Foundation, **\$30,000**.

2011 *NADEF Research Fellowship*, National Science Foundation, **\$3,000**

2011 *Honorable Mention*, Graduate Student Honors Paper Competition (Ph.D.) Southeastern Division of the Association of American Geographers.

2011 *Graduate School Summer Competitive Research Assistantship*, University of North Carolina at Greensboro, **\$2,000**.

2010 *Graduate School Summer Competitive Research Assistantship*, University of North Carolina at Greensboro, **\$2,000**.

2008 *Julian Yoder Scholarship*, Department of Geography and Planning, Appalachian State University. **\$500.**

Invited Presentations

- Nov. 2014 Spatiotemporal patterns of drought-busting tropical cyclones in the Southeastern Coastal United States. *Colloquium Series, School of Public and Environmental Affairs, Indiana University, Bloomington, IN.*
- Oct. 2014 Drought busting tropical cyclones: Spatiotemporal patterns of drought amelioration in the Gulf and Southeastern Coastal United States. *Colloquium Series, Department of Geography, University of Kentucky, Lexington, KY.*
- Nov. 2012 Global Climate Change. *Geography Awareness Week, Department of Geography, Indiana University, Bloomington, IN.*
- Oct. 2011 Tree-Ring Growth and Tupelo Honey Production. *Ninety-First Annual Convention of the Florida State Beekeepers Association, Orlando, FL.*
- Oct. 2011 *Nyssa ogeche* tree-rings, tupelo honey and ARSTAN. *Seminar in Tree-Ring Research, Department of Geography and Planning, Appalachian State University, Boone, NC.*

Presentations at Professional Meetings

* and underline a represents student author

- Dec. 2014 **J.T. Maxwell**, Harley, G.L., *Pendergrass, K., *Matheus, T.J. Dendroclimatic reconstruction from multiple co-occurring species from old-growth deciduous forests in Indiana, U.S.A. *American Geophysical Union Annual Meeting, San Francisco, California. (Poster)*
- Dec. 2014 D.L. Ficklin, Letsinger, S.L., *Gholizadeh, H., **Maxwell, J.T.** A tool to calculate Palmer drought indices using Penman-Monteith potential evapotranspiration. *American Geophysical Union Annual Meeting, San Francisco, California. (Poster)*
- Nov. 2014 *K. Pendergrass, Harley G.L., and **Maxwell, J.T.** Climate reconstructions from multiple co-occurring tree species: a case study from an old-growth deciduous forest in Indiana, U.S.A. *Sixty-Ninth Annual Meeting of the Southeastern Division of the Association of American Geographers, Athens, Georgia.*
- Nov. 2014 G.L. Harley, **Maxwell, J.T.**, Maxwell, R.S., and Pederson, N.P. Flint River streamflow since 947 AD Reconstructed from tree rings. *Sixty-Ninth Annual*

Meeting of the Southeastern Division of the Association of American Geographers, Athens, Georgia.

- Apr. 2014 **J.T. Maxwell**, Harley, G.L., and *Matheus, T.J. Dendroclimatic reconstructions from multiple co-occurring species: a case study from an old-growth deciduous forest in Indiana, USA. *Annual Meeting of the Association of American Geographers, Tampa, FL. (Poster)*
- Apr. 2014 G.L. Harley, **Maxwell, J.T.**, and Grissino-Mayer, H.D. Forest structure of sub-tropical pine rockland in relation to micro-site elevation on islands in the Florida Keys. *Annual Meeting of the Association of American Geographers, Tampa, FL.*
- Apr. 2014 P.A. Knapp and **Maxwell, J.T.** Spatio-temporal changes in comfortable weather duration in the Continental U.S.: 1950–2011. *Annual Meeting of the Association of American Geographers, Tampa, FL. (Poster)*
- Apr. 2014 *H.M. Mason, Ortegren, J.T., and **Maxwell, J.T.** Dendrochronological analysis and growth-climate response of *Chamaecyparis thyoides* and *Chamaecyparis thyoides* var. *henryae* in Northwest Florida. *Annual Meeting of the Association of American Geographers, Tampa, FL.*
- Nov 2013 P.A. Knapp and **Maxwell, J.T.** Changes in Comfortable Weather Duration in the Continental U.S.: 1950–2011. *Sixty-Eight Annual Meeting of the Southeastern Division of the Association of American Geographers, Roanoke, VA. (Poster)*
- May 2013 **J.T. Maxwell**, Knapp, P.A., and Ortegren, J.T. The Influence of the Atlantic Multidecadal Oscillation on Tupelo Honey Production since AD 1800. *The Second American Dendrochronological Conference, Tucson, AZ.*
- Apr. 2013 **J.T. Maxwell**, Ortegren, J.T., Knapp, P.A., and Soulé, P.T. Tropical Cyclones and Drought Amelioration in the Gulf and Southeastern Coastal United States. *Annual Meeting of the Association of American Geographers, Los Angeles, CA.*
- Apr. 2013 P.A. Knapp, Soulé, P.T. and **Maxwell, J.T.** Growth Divergence Between Mountain Pine Beetle-Infested and Healthy Ponderosa Pine in Montana Prior to Outbreak. *Annual Meeting of the Association of American Geographers, Los Angeles, CA. (Poster)*
- Nov. 2012 J.T. Ortegren, Weatherall, A. and **Maxwell, J.T.** Subregionalization of Low Frequency Summer Drought Variability in the Southeastern U.S.A. *Sixty-Seventh Annual Meeting of the Southeastern Division of the Association of American Geographers, Asheville, NC. (Poster)*

- Nov. 2012 P.A. Knapp, Soulé, P.T. and **Maxwell, J.T.** Mountain Pine Beetle Selectivity in Old-Growth Ponderosa Pine Forests: A Dendroecological Analysis between Live and Dead Trees in Outbreak Areas. *Sixty-Seventh Annual Meeting of the Southeastern Division of the Association of American Geographers*, Asheville, NC.
- Sept. 2012 H.D. Grissino-Mayer, **Maxwell, J.T.**, Harley, G.L., Garland, N.A., Holt, D.H., Absher, C., Beale, B.J., Boehm, M.S., de Graauw, K.A., Rautio, A., and Dye, A.W. Dendrochronology Reveals the Construction History of an Early 19th Century Farm Settlement, Southwestern Virginia, U.S.A. *Upland Archaeology in the East – Archaeology and History of the Blue Ridge and Beyond: Symposium XI*, Salem, VA.
- Feb. 2012 **J.T. Maxwell**, Harley, G.L., Holt, D.H., Apsher, C., Garland, N.A., Beale, B.J., Boehm, M.S., Dye, A.W., de Graauw, K.A. Rautio, A., and Grissino-Mayer, H.D. Techniques of dendroarchaeology elucidate the construction history of an early 19th century settlement compound. *Annual Meeting of the Association of American Geographers*, New York, NY.
- Feb. 2012 J.T. Ortegren, Knapp, P.A , **Maxwell, J.T.**, Tyminski, W.P., and Soulé, P.T. Low-frequency ocean-atmospheric drivers of warm-season drought in the Southeastern U.S.A. *Annual Meeting of the Association of American Geographers*, New York, NY.
- Nov. 2011 **J.T. Maxwell**. Examining tupelo honey yield decline using *Nyssa ogeche* tree-rings. *Sixty-Sixth Annual Meeting of the Southeastern Division of the Association of American Geographers*, Savannah, GA.
- Nov. 2011 D. H. Holt, **Maxwell, J.T.**, Garland, N.A., Harley, G.L., Apsher, C., Beale, B.J., Boehm, M.S., de Graauw, K.A., Rautio, A., and Grissino-Mayer, H.D. Using trees to date structures on the Anderson-Doosing Farm, Roanoke, Virginia. *Sixty-Sixth Annual Meeting of the Southeastern Division of the Association of American Geographers*, Savannah, GA.
- Nov.2011 S. Walcott, **Maxwell, J.T.**, and Tyminski, W.P. Transition in American agriculture: specialty crops with a conscience. *Sixty-Sixth Annual Meeting of the Southeastern Division of the Association of American Geographers*, Savannah, GA.
- Apr. 2011 **J.T. Maxwell** and Knapp, P.A. Reconstructing honey yield from *Nyssa ogeche* tree-rings in Northwest Florida: a preliminary analysis. *Annual Meeting of the Association of American Geographers*, Seattle, WA.
- Nov. 2010 **J.T. Maxwell**. A preliminary analysis of the utility of tree-rings from *Nyssa Ogeche* to reconstruct tupelo honey yield in Northwest Florida. *Sixty-Fifth Annual*

Meeting of the Southeastern Division of the Association of American Geographers, Birmingham, AL. (Poster)

- Oct. 2010 W.P. Tyminski, Farrell, M.L., and **Maxwell, J.T.** A comparison of untapped and tapped sugar maple tree growth: A dendrochronological approach. *Annual Meeting of the North American Maple Syrup Council, Stratford, Ontario, Canada. (Poster)*
- Apr. 2010 **J.T. Maxwell.** An assesment of the dendrochronological utility of *Nyssa ogeche*. *Annual Meeting of the Association of American Geographers, Wasington DC.*
- Apr. 2010 J.T. Ortegren, Knapp, P.A., **Maxwell, J.T.**, and Soulé, P.T. Homogenous summer drought regions in the contiguous U.S.A., and their relative susceptibility to multi-year sustained drought events: A synoptic “safety net” protecting the Southeast and the eastern Gulf Coast? *Annual Meeting of the Association of American Geographers, Wasington DC.*
- Nov. 2009 **J.T. Maxwell,** Soulé, P.T., Knapp, P.A., Ortegren, J.T. and Sufficool, M. Drought-busting tropical cyclones in the southeastern Atlantic United States: 1950–2008. *Sixty-Fourth Annual Meeting of the Southeastern Division of the Association of American Geographers, Knoxville, TN.*
- Nov. 2009 J.T. Ortegren, Knapp, P.A., **Maxwell, J.T.**, and Soulé, P.T. Homogenous summer drought regions in the contiguous U.S.A. and their relative susceptibility to multi-year sustained drought events. *Sixty-Fourth Annual Meeting of the Southeastern Division of the Association of American Geographers, Knoxville, TN.*
- Mar. 2009 **J.T. Maxwell** and Soulé, P.T. How does the United States drought of 2007 compare historically? *Annual Meeting of the Association of American Geographers, Las Vegas, NV. (Poster)*
- Nov. 2008 **J.T. Maxwell.** Drought and other driving forces behind population change in rural counties in the United States. *Sixty-Third Annual Meeting of the Southeastern Division of the Association of American Geographers, Greensboro, NC.*
- Apr. 2008 **J.T. Maxwell.** Drought in the United States during 2007: historical perspective versus media attention. *Eleventh Annual Celebration of Student Research and Creative Endeavors, Boone, NC. (Poster)*

Manuscript Reviewer

Annals of the Association of American Geographers
Climatic Change
European Journal of Forest Research

Forest Ecology and Management
Geophysical Research Letters
International Journal of Climatology (2)
Journal of Applied Meteorology and Climatology (2)
Journal of Ecology
Madera y Bosques (Wood and Forests)
Palaeogeography, Palaeoclimatology, Palaeoecology
Population and Environment
Scandinavian Journal of Forest Research
Southeastern Geographer

Grant Proposals – Outside Reviewer

National Science Foundation– Geography and Spatial Sciences Program
National Geographic Society

TEACHING

Courses Taught

Indiana University

GEOG 109 – Weather and Climate
GEOG-G237 – Cartography and Geographic Information
*GEOG-G307 – Biogeography: Distribution of Life
*GEOG-G440/540 – Topics in Environmental Geography: Climate and Vegetation
*GEOG-G452/552–Tree-Ring Science

Winston-Salem State University

Justice 4342 – Technological Analysis (Introduction and Advanced GIS)

University of North Carolina at Greensboro

GEO 103 – Introduction to Earth Science
Lab section of GEO 106 – Geosystems Science
Lab Section of GEO 111 – Physical Geology

*Course material was majorly revised or developed and added to departmental course catalog.

Student Advising

Doctoral Students Graduate Committee Chair

Trevis Matheus (Ph.D. *In progress*)

Master Students Graduate Committee Chair

Trevis Matheus (M.S. 2014)

Thesis: *A 332-year reconstruction of Midwest droughts from tree-rings*. Department of Geography, Indiana University, 91pp.

Karly Schmidt – (M.S. *In progress*)
Matthew Wenzel – (M.S. *In progress*)
Nicholas Batchos – (M.S. *In progress*)

Undergraduate Student Honors Thesis Advisor
Jessica Ayers – (B.S. *In progress*)

Doctoral Students Graduate Committee Member
Zuoning Jiang – (Ph.D. *In progress*)

Master Students Graduate Committee Member
Thomas Patterson – (M.A. 2013, Geography, University of North Carolina at Greensboro)
Sara Johnson – (M.S. *In progress*)

SERVICE

Department

Department Honors, Awards, and Fellowship Committee, 2013
Publicity Committee, 2013–
Salary Committee, 2013
Departmental Hiring Committee, 2012, 2013 (Chair)

University

Program Committee Member: Bachelor of Science in Environmental Science (BSES), 2013–

Regional, National, and International

Board Member:

2013–2015 – *Young Scholars Director*, Climate Specialty Group, Association of American Geographers, 2013–2015

Reviewer:

2014 – Student Research Grant Competition, Biogeography Specialty Group, Association of American Geographers

Judge:

2014 – Student Paper Competition, Climate Specialty Group, Association of American Geographers

Session Organizer:

2014 – Undergraduate student poster competition session, Climate Specialty Group, Association of American Geographers

2015 – Undergraduate student poster competition session, Climate Specialty Group, Association of American Geographers

Community

- 2013 Invited Speaker: I'm the Lorax and I Speak for the Trees. *Rotary Club*, Bloomington, IN.
- 2010 Invited Speaker: The Health of the white tupelo (*Nyssa ogechee*). *Lion's Club*, Donalsonville, GA.

Memberships

Core Faculty: Climate and Environmental Change Program, Department of Geography, 2012–

Faculty Affiliate: Indiana University's Integrated Program in the Environment, 2013–

Faculty Affiliate: Atmospheric Science, Department of Geological Sciences, 2012–

Member: Association of American Geographers

-Biogeography Specialty Group

-Climate Specialty Group