

CURRICULUM VITAE

Delphis F. Levia, Jr.

OFFICE ADDRESS

Department of Geography & Center for Climatic Research
University of Delaware
Newark, DE 19716-2541
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EDUCATION

Clark University, Worcester, MA
Ph.D. in Geography (2000)
Fields of Expertise: forest hydrology, biometeorology, biosphere-climate interactions, forest biogeochemistry, snow chemistry, field methods and instrumentation
Ph.D. dissertation: *Winter stemflow leaching from deciduous canopy trees in relation to meteorological conditions and canopy structure*
Advisor: Professor Stanley Herwitz

University of Massachusetts, Amherst, MA
M.S. in Geography (1996)
Fields of Expertise: natural hazards, geomorphology, environmental management, perception, land degradation
M.S. thesis: *The perception of floods associated with storm surges among the citizens of Scituate, Massachusetts*
Advisor: Professor David Alexander

Clark University, Worcester, MA
B.A. in Geography, *summa cum laude* (1994)
Senior thesis: *Mid-winter stemflow drainage from bigtooth aspen*

ACADEMIC APPOINTMENTS

Associate Professor of Ecohydrology (2009- pr)
Secondary Appointment, Plant & Soil Sciences (2006-pr)
University of Delaware, Newark, DE

Assistant Professor of Ecohydrology (2003-2009)
University of Delaware, Newark, DE

Assistant Professor of Geography (2001-2003)
Southern Illinois University, Carbondale, IL

Visiting Assistant Professor of Geography (2000-01)
Clark University, Worcester, MA

RESEARCH & OTHER APPOINTMENTS

Reference Librarian (1999-2001)
Quinsigamond Community College, Worcester, MA
Duties: provide reference support for students and faculty, teach library information literacy course, special projects manager

Research Assistant (1997)
Harvard University
Harvard Forest, Petersham, MA
Project title: Modeling the carbon budget of an old growth hemlock (*Tsuga canadensis*) stand

HONORS & AWARDS

Salzburg Global Seminar Fellow (2008)

Award for Excellence in Geography Programmatic Assessment (2008)

Phi Beta Kappa Honor Society (inducted 1994)

Gamma Theta Upsilon-Geographic International Honor Society (inducted 1992)

Strabo Prize for Intellectual Leadership, Exploration, & Creativity in Geography (1992)

PATENTS

2009. United States Patent and Trademark Office. United States Provisional Patent Application No.: 61/178,708. LaserBark™ automated tree measurement system (Patent pending)

GRANTS AWARDED

2008. National Science Foundation. International Research and Education: Planning Visits and Workshops (Ref No. OISE-0822226). U.S.-Switzerland planning visit: Seeking a better understanding of canopy-snowpack interactions in relation to the avalanche hazard. Role: PI. (Project total: \$15,588)

2008. National Science Foundation. Hydrologic Sciences (Ref No. EAR-0809205). Collaborative Research: Evolution of dissolved organic nitrogen (DON) from the headwaters to the catchment outlet: sources, variation with scale, and differences with DOC. Role: Co-PI. (Project total: \$540,634; Project total to University of Delaware: \$331,920)

2008. Association of American Geographers. AAG Research Grant. Dissolved organic carbon and nitrogen flux through the critical zone: effects of the canopy and litter layer. Role: PI. (Project total: \$1,200)
2007. Starrett Foundation. Microclimatology and biogeochemistry of a mid-Atlantic watershed located in southeastern Pennsylvania. Role: PI. (Project total: \$56,000)
2007. University of Delaware Research Foundation. Dissolved organic carbon and nitrogen flux through the critical zone: effects of the canopy and litter layer. Role: PI. (Project total: \$25,000)
2006. University of Delaware. Office of Educational Assessment. Assessment Faculty Fellow Grant. Role: PI. (Project total: \$1,000)
2006. University of Delaware. Center for Teaching Effectiveness, General Education Initiative, Information Technologies- Instructional Grant. Schistosomiasis and gold mining: two PBL activities for *Conservation of Natural Resources* (Geog235). Role: PI. (Project total:\$8,711)
2005. College of Arts & Sciences, Dean's Office and Department of Geography, University of Delaware. Conference Grant. The 2006 Joint Eastern Snow Conference/AAG Cryosphere Specialty Group Meeting, Newark, DE. Role: PI. (Project total: \$1,000)
2002. Oklahoma Climatological Survey, University of Oklahoma. Mesonet Data Grant. Assessing climatic suitability of the northward expansion of *Solenopsis invicta* Buren (red imported fire ant) in Oklahoma under three global climate change scenarios. Role: PI. (Project total: \$9,000)
2002. Office of Research and Development Administration, Southern Illinois University, Carbondale. Faculty Research/Creative Grant . The development of a methodology to detect farmland prone to residential development near small towns. Role: PI. (Project total: \$9,641)
2002. Office of Research and Development Administration, Southern Illinois University, Carbondale. Award of an Undergraduate Research Fellow (Ref. No. 3022-165). Litterfall interception of *Liquidambar styraciflua* L. (sweetgum) fruit litter in southern Illinois . Role: PI. (Project total: \$5,400)
1999. National Science Foundation. Doctoral Research Grant. Geography and Regional Science (Ref. No. SBR-9906545). Seasonality of leachate dynamics in broadleaved deciduous forest ecosystems in relation to global change and the increased frequency of mixed precipitation. Role: PI. (Project total: \$9,050)
1999. Massachusetts Water Resource Authority (MWRA), Commonwealth of Massachusetts. Chemical Analysis Grant. Seasonality of leachate dynamics in broadleaved deciduous forests in relation to global change and the increased frequency of mixed precipitation. Role: PI. (Project total: \$28,000)

1999. Pruser/Holzhauser Graduate Enhancement Research Grant. Graduate School of Geography, Clark University. Aboveground winter leachate dynamics from the woody surfaces of deciduous canopy trees in relation to canopy structure and meteorological conditions .Role: PI. (Project total: \$500)

GRANT PROPOSALS PENDING

2009. National Science Foundation. Geography and Regional Science. Canopy-snowpack interactions in open larch dominated forests of the Swiss Alps in relation to tree-to-tree spacing and slope aspect. Role: PI. (\$522,665)
2009. Provincial Government of British Columbia, Forest Science Program. Stemflow hydrology and biogeochemistry in young conifer stands. Role: Co-PI.
2009. Department of Energy. National Institute for Climate Change Research. Quantifying the effects of climatic change and altered precipitation regimes on the temperate deciduous forest biome. Role: PI. (\$125,000)
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PUBLICATIONS (student co-author color code: green = undergraduate; purple = graduate)

Journal articles & other peer-reviewed publications

- Van Stan, II, J.T. and Levia, D.F. 2009. Inter- and intraspecific variation of stemflow production from *Fagus grandifolia* Ehrh. (American beech) and *Liriodendron tulipifera* L. (yellow poplar) in relation to bark microrelief in the eastern United States. *Ecohydrology*: Accept. w/ minor revision.
- Fang, K., Gou, X., Levia, D.F., Li, J., Liu, X., He, M., Zhang, Y. and Peng, J. 2009. Variations of radial growth patterns in trees along three altitudinal transects in north central China. *IAWA Journal*: In press.
- Rudrappa, T., Choi Y.S., Levia, D.F., Legates, D.R., Lee, K.H. and Bais, H.P. 2009. *Phragmites australis* root secreted phytotoxin undergoes photo-degradation to execute severe phytotoxicity. *Plant Signaling and Behavior* 4(6): In press.
- Levia, D.F. 2008. A generalized allometric equation to predict foliar dry weight on the basis of trunk diameter for eastern white pine (*Pinus strobus* L.). *Forest Ecology and Management* 255 (5/6): 1789-1792.
- Levia, D.F. and Leclair, L.A. 2008. Winter leaf conductance rates of *Pinus strobus* L. (eastern white pine). *Physical Geography* 29 (5): 474-482.
- Levia, D.F. and Quiring, S.M. 2008. Assessment of student learning in a hybrid PBL capstone seminar. *Journal of Geography in Higher Education* 32 (2): 217-231.

- Gou, X., Peng, J., Chen, F. Yang, M., **Levia, D.F.** and Li, J. 2008. A dendrochronological analysis of the maximum summer-half-year temperature variations over the past 700 years on the northeastern Tibetan Plateau. *Theoretical and Applied Climatology* 93(3/4): 195-206.
- Klingaman, N.P.**, **Levia, D.F.** and **Frost, E.E.** 2007. A comparison of several canopy interception models for a leafless mixed deciduous forest stand in the eastern United States. *Journal of Hydrometeorology* 8 (4): 825-836.
- Yang, M., Yao, T., Gou, X., Hirose, N., Fuji, H., Hao, L. and **Levia, D.F.** 2007. Diurnal freeze/thaw cycles of the ground surface on the Tibetan Plateau. *Chinese Science Bulletin* 52 (1): 136-139.
- Levia, D.F.** 2006 (invited). Evapotranspirational losses from plants: effects of canopy architecture and climate. In: *Encyclopedia of Water Science*. Trimble, S.W. (Ed.), Boca Raton, Florida, USA: CRC Press, DOI: 10.1081/E-EWS-120010165, 6 p.
- Levia, D.F.** and Bashour, M.J. 2006. Interpreting the place space of an extinct cultural landscape: the Swift River Valley of central Massachusetts. *Historical Journal of Massachusetts* 34 (2): 149-170.
- Levia, D.F.** and **Frost, E.E.** 2006. Variability of throughfall volume and solute inputs in wooded ecosystems. *Progress in Physical Geography* 30 (5): 605-632.
- Levia, D.F.** and **Wubbena, N.** 2006. Vertical variation in the bark water storage capacity of *Pinus strobus* L. in southern Illinois. *Northeastern Naturalist* 13 (1): 131-137.
- Kidane-Mariam, T. and **Levia, D.F.** 2006. The political ecology of land degradation in Ethiopia. In: *Africa's Development in the Twenty-first Century: Pertinent Socioeconomic and Development Issues*. Konadu-Agyemang, K. and Panford, K. (Eds.), Aldershot, Hampshire, UK: Ashgate Publishing Ltd., pp. 139-159.
- Underwood, S.J., **Levia, D.F.** and **Lavin, J.** 2006. A climatology of solar radiation attenuation during fog episodes in the Central Valley of California. *California Geographer* 46 (1): 57-68.
- Levia, D.F.** and Herwitz, S.R. 2005. Interspecific variation of bark water storage capacity of three deciduous tree species in relation to stemflow yield and solute flux to forest soils. *Catena* 64 (1): 117-137.
- Levia, D.F.**, **Bollinger, W.C.** and **Hrabik, R.A.** 2005. Evaporation of intercepted precipitation from fruit litter of *Liquidambar styraciflua* L. (sweetgum) in a clearing as a function of meteorological conditions. *International Journal of Biometeorology* 49 (5): 325-331.
- Levia, D.F.** 2004. Differential winter stemflow generation under contrasting storm conditions in a southern New England broadleaved deciduous forest. *Hydrological Processes* 18 (6): 1105-1112.

- Levia, D.F.** and **Frost, E.E.** 2004. Assessment of climatic suitability for the expansion of *Solenopsis invicta* Buren in Oklahoma using three general circulation models. *Theoretical and Applied Climatology* 79 (1/2): 23-30.
- Levia, D.F.** and Underwood, S.J. 2004a. Hydrological research and the status of physical geography journals: increasing the impact of physical geography in the academy. *The Professional Geographer* 56 (3): 345-349.
- Levia, D.F.** and Underwood, S.J. 2004b. Snowmelt induced stemflow in northern hardwood forests: a theoretical explanation on the causation of a neglected hydrological process. *Advances in Water Resources* 27 (2): 121-128.
- Levia, D.F., Bollinger, W.C., Hrabik, R.A.** and Pogge, J.T. 2004. Water storage capacity of empty fruiting heads of *Liquidambar styraciflua* L. (sweetgum). *Hydrological Sciences Journal* 49 (5): 843-853.
- Herwitz, S.R., **Levia, D.F.** and Ewe, S.M.L. 2004. Transpiration rates of the understory annual *Impatiens capensis* (Balsaminaceae) in response to the autumnal change in canopy leaf area. *Flora* 199 (6): 524-530.
- Yates, E.D., Levia, D.F.** and Williams, C.L. 2004. Recruitment of three non-native invasive plants into a fragmented forest of southern Illinois. *Forest Ecology and Management* 190 (2/3): 119-130.
- Levia, D.F.** 2003a. Winter stemflow leaching of nutrient-ions from deciduous canopy trees in relation to meteorological conditions. *Agricultural and Forest Meteorology* 117 (1/2): 39-51.
- Levia, D.F.** 2003b. Winter stemflow nutrient inputs into a southern New England broadleaved deciduous forest. *Geografiska Annaler* 85A (1): 13-20.
- Levia, D.F.** and **Frost, E.E.** 2003. A review and evaluation of stemflow literature in the hydrologic and biogeochemical cycles of forested and agricultural ecosystems. *Journal of Hydrology* 274 (1/4): 1-29.
- Levia, D.F.** 2002. Nitrate sequestration by corticolous macrolichens during winter precipitation events. *International Journal of Biometeorology* 46 (2): 60-65.
- Levia, D.F.** and Herwitz, S.R. 2002. Winter chemical leaching from deciduous tree branches as a function of branch inclination angle in central Massachusetts. *Hydrological Processes* 16 (14): 2867-2879.
- Levia, D.F.** and Herwitz, S.R. 2000. Physical properties of stemflow water in relation to leachate dynamics: implications for nutrient cycling. *Canadian Journal of Forest Research* 30 (4): 662-666.

Levia, D.F. and **Page, D.R.** 2000. The use of cluster analysis in distinguishing farmland prone to residential development: a case study of Sterling, Massachusetts. *Environmental Management* 25 (5): 541-548.

Levia, D.F. 1999. Land degradation: why is it continuing? *Ambio* 28 (2): 200-201.

Levia, D.F. 1998. Farmland conversion and residential development in north central Massachusetts. *Land Degradation and Development* 9 (2): 123-130.

Herwitz, S.R. and **Levia, D.F.** 1997. Mid-winter stemflow drainage from bigtooth aspen (*Populus grandidentata* Michx.) in central Massachusetts. *Hydrological Processes* 11 (2): 169-175.

Conference Proceedings & Reports

Levia, D.F. 2009. *Cold Trail*. (Ed.) Cryosphere Specialty Group Newsletter, Association of American Geographers: Volume 6, Issue 1.

Levia, D.F. 2008. Dissolved organic carbon and nitrogen flux through the critical zone: effects of the canopy and litter layer. *University of Delaware Research Foundation*, Newark, DE.

Levia, D.F. 2008. Dissolved organic carbon and nitrogen flux through the critical zone: effects of the canopy and litter layer. *Association of American Geographers*, Washington, DC.

Levia, D.F. 2008. *Cold Trail*. (Ed.) Cryosphere Specialty Group Newsletter, Association of American Geographers: Volume 5, Issue 1.

Levia, D.F. 2007. Schistosomiasis and gold mining: two PBL activities for *Conservation of Natural Resources* (Geog 235). Final Project Report. *University of Delaware, Center for Teaching Effectiveness*, General Education Initiative & Information Technologies, Newark, DE.

Levia, D.F. and Leclair, L.A. 2006. Winter needle conductance rates of *Pinus strobus* L. (eastern white pine): meteorological conditions and intraspecific variability. Final Project Report. *Delaware Water Resources Center*, Newark, DE.

Levia, D.F. 2003. Differential winter stemflow generation under contrasting storm conditions in a southern New England broadleaved deciduous forest. *Proceedings of the 60th Annual Eastern Snow Conference*, Sherbrooke, Quebec, Canada.

Levia, D.F. 2002. The development of a methodology to detect farmland prone to residential development near small towns. Final Project Report. *Office of Research Development and Administration, Southern Illinois University*, Carbondale, IL.

Levia, D.F. and Herwitz, S.R. 2002. Seasonality of leachate dynamics in broadleaved deciduous forest ecosystems in relation to global change and the increased frequency of mixed precipitation. Research Nugget Report. *National Science Foundation*, Washington, DC.

Levia, D.F. and Herwitz, S.R. 2002. Winter chemical leaching from deciduous tree branches as a function of branch inclination angle in central Massachusetts. *Proceedings of the 59th Annual Eastern Snow Conference*, Stowe, Vermont, USA.

Herwitz, S.R. and **Levia, D.F.** 2001. Seasonality of leachate dynamics in broadleaved deciduous forest ecosystems in relation to global change and the increased frequency of mixed precipitation. Final Project Report. *National Science Foundation*, Washington, DC.

Levia, D.F. 2000. Winter stemflow leachate dynamics from deciduous canopy trees in relation to precipitation event characteristics. *Proceedings of the 57th Annual Eastern Snow Conference*, Syracuse, New York, USA.

Ault, H.K., Herwitz, S.R. and **Levia, D.F.** 2000. Modeling the geometry of leafless canopy trees for the determination of total woody surface area and its influence on leachate chemistry. *Proceedings of the 9th International Conference on Geometry and Graphics*, Johannesburg, South Africa.

MANUSCRIPTS IN REVIEW

Levia, D.F. and Leathers, D.J. (submitted to *Encyclopedia of Snow, Ice and Glaciers*) (invited) Rain-induced snowmelt.

Levia, D.F., **Van Stan, II, J.T.**, **Mage, S.M.** and **Kelley-Hauske, P.W.** (submitted to *Water Resources Research*) Spatio-temporal variability of stemflow volume in a beech-yellow poplar forest in relation to tree species and size.

Frost, E.E., **Levia, D.F.** and Willmott, C.J. (submitted to *Journal of Hydrology*) Variability of throughfall inputs in a southern Illinois deciduous forest.

Hellström, R.Å., Mark, B.G. and **Levia, D.F.** (submitted to *Boundary-Layer Meteorology*) Seasonal and diurnal fluctuations of boundary layer conditions within a tropical alpine valley in the Peruvian Andes.

Van Stan, II, J.T., Jarvis, M.T. and **Levia, D.F.** (submitted to *IEEE Transactions on Instrumentation and Measurement*) An automated instrument for measurement of bark microrelief.

INVITED LECTURES AND PRESENTATIONS

Levia, D.F. 2009. "A synopsis of research activities of UD's Ecohydrology Group: past, present, and future." Department of Geography, University of Delaware, Newark, Delaware

Levia, D.F. 2008. "Biometeorology of a beech-yellow poplar forest in northeastern Maryland in relation to stemflow inputs." Northern Delaware/Philadelphia Area Local Chapter, American Meteorological Society

- Levia, D.F.** and Mage, S.M. 2008. "The stemflow hydrology of a beech-yellow poplar forest in northeastern Maryland: implications for hydrogeology." Presented at the First International Hydrogeology Conference, Pennsylvania State University, State College, Pennsylvania
- Klingaman, N.P., **Levia, D.F.** and Frost, E.E. 2006. "A comparison of several canopy interception models for a leafless mixed deciduous forest stand in the eastern United States." Tropical Research Group Colloquia, University of Reading, Reading, United Kingdom
- Levia, D.F.** 2004. "Biosphere-climate interactions in a southern New England broadleaved deciduous forest." Geography Colloquium Series, Ball State University, Muncie, Indiana
- Levia, D.F.** 2003. "Forest biometeorology." Colloquium Series, Department of Geology, University of Delaware, Newark, Delaware
- Levia, D.F.** 2001. "Winter stemflow leachate dynamics from deciduous canopy trees in relation to precipitation event characteristics." Colloquium Series, Southern Illinois University Ecology Consortium, Carbondale, Illinois
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SYMPOSIUM PRESENTATIONS

- Levia, D.F.**, Van Stan, J.T., Mage, S.M. and Hauske, P.W. 2009. "Spatio-temporal variability of stemflow volume in a beech-yellow poplar forest in relation to tree species and size." Presented at the American Geophysical Union 2009 Joint Assembly, Meeting of the Americas, Toronto, Ontario, Canada
- Van Stan, J.T., Jarvis, M.T. and **Levia, D.F.** 2009. "An automated instrument for measurement of bark microrelief." Presented at the American Geophysical Union 2009 Joint Assembly, Meeting of the Americas, Toronto, Ontario, Canada
- Siegert, C.M. and **Levia, D.F.** 2009. "An investigation into the transpiration and stomatal conductance rates of three co-occurring seedling species of varying shade tolerance." Presented at the 105th Annual Meeting of the Association of American Geographers, Las Vegas, Nevada
- Frost, E.E., **Levia, D.F.** and Willmott, C.J. 2008. "Variability of throughfall inputs in a southern Illinois broadleaved deciduous forest." Presented at the 104th Annual Meeting of the Association of American Geographers, Boston, Massachusetts
- Levia, D.F.** and Quiring, S.M. 2007. "Assessment of student learning in a hybrid PBL capstone seminar." Presented at the 103rd Annual Meeting of the Association of American Geographers, San Francisco, California
- Levia, D.F.** and Bednarz, R.S. 2007. "Geographic education: active learning and assessment in cultural, environmental, and techniques subfields, I, II." Organizers, Chairs, and Discussants at the 103rd Annual Meeting of the Association of American Geographers, San Francisco, California

- Levia, D.F.** 2006. "Base cation solute enrichment of winter throughfall flux in a deciduous forest in relation to meteorological conditions." Presented at the 63rd Annual Eastern Snow Conference, Newark, Delaware
- Levia, D.F.** 2006. "Intraspecific variation of base cation solute enrichment of winter throughfall flux in a deciduous forest." Presented at the 102nd Annual Meeting of the Association of American Geographers, Chicago, Illinois
- Underwood, S.J. and **Levia, D.F.** 2006. "Solar radiation attenuation during fog episodes in the Central Valley of California." Presented at the 69th Annual Meeting of the Association of Pacific Coast Geographers, Eugene, Oregon
- Levia, D.F.** 2005. "Geography in higher education: trends and issues." Panelist at the 101st Annual Meeting of the Association of American Geographers, Denver, Colorado
- Levia, D.F.** and Underwood, S.J. 2005. "Hydrological research and the status of physical geography journals: increasing the impact of physical geography in the academy." Presented at the 101st Annual Meeting of the Association of American Geographers, Denver, Colorado
- Levia, D.F.** and Frost, E.E. 2004. "Assessment of climatic suitability for the expansion of *Solenopsis invicta* Buren in Oklahoma using three general circulation models." Presented at the 100th Annual Meeting of the Association of American Geographers, Philadelphia, Pennsylvania
- Levia, D.F.** 2003. "Differential winter stemflow generation under contrasting storm conditions in a southern New England broadleaved deciduous forest." Presented at the 60th Annual Eastern Snow Conference, Sherbrooke, Quebec, Canada
- Levia, D.F.** 2003. "Employing field experimentation methods during winter: an example of nitrate sequestration by corticolous macrolichens during winter precipitation events." Presented at the 99th Annual Meeting of the Association of American Geographers, New Orleans, Louisiana
- Kidane-Miriam, T. and **Levia, D.F.** 2003. "Political ecology of land degradation in Ethiopia." Presented at the 99th Annual Meeting of the Association of American Geographers, New Orleans, Louisiana
- Levia, D.F.** and Herwitz, S.R. 2002. "Winter chemical leaching from deciduous tree branches as a function of branch inclination angle in central Massachusetts." Presented at the 59th Annual Eastern Snow Conference, Stowe, Vermont
- Levia, D.F.** 2002. "Detecting farmland prone to residential development in small towns." Presented at the 98th Annual Meeting of the Association of American Geographers, Los Angeles, California
- Levia, D.F.** 2002. "Land cover and land use change on the urban fringe." Session chairperson at the 98th Annual Meeting of the Association of American Geographers, Los Angeles, California

- Levia, D.F.** 2001. "Influence of global change and species composition of a broadleaved deciduous forest on biogeochemical cycling." Presented at the 97th Annual Meeting of the Association of American Geographers, New York, New York
- Levia, D.F.** 2001. "Natural hazards and climatic change." Session chairperson at the 97th Annual Meeting of the Association of American Geographers, New York, New York
- Levia, D.F.** 2000 "Winter stemflow leachate dynamics from deciduous canopy trees in relation to precipitation event characteristics." Presented at the 57th Annual Eastern Snow Conference, Syracuse, New York
- Ault, H. K., Herwitz, S.R. and **Levia, D.F.** 2000. "Modeling the geometry of leafless canopy trees for the determination of total woody surface area and its influence on leachate chemistry." Presented at the 9th International Conference on Geometry and Graphics, Johannesburg, South Africa
- Levia, D.F.** and Herwitz, S.R. 1999. "Nutrient cycling in deciduous forests during dormancy: implications of global change and increased frequency of mixed precipitation events." Presented at Annual Meeting of the New England-Saint Lawrence Valley Geographical Society, Farmington, Maine
- Levia, D.F.** and Schiller, A. 1999. "Implications of global change for sustainable communities and natural systems." Session co-organizers and chairpersons for Annual Meeting of the New England-Saint Lawrence Valley Geographical Society, Farmington, Maine
- Levia, D.F.** 1998. "Farmland conversion and residential development in north central Massachusetts." Presented at the 94th Annual Meeting of the Association of American Geographers, Boston, Massachusetts
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GRADUATE TEACHING EXPERIENCE

Graduate students:

Chair:

Ethan E. Frost (Ph.D. student)- stemflow chemistry from live, moribund, and standing dead trees

John T. Van Stan, II (Ph.D. student)- DOC and DON cycling as a function of spatial and temporal scale

John C. Fry (M.S. student)- forest fragmentation and recruitment of *Ailanthus altissima* (tree of heaven) in northeastern Maryland, USA

Courtney M. Siegert (M.S. student)- differential stomatal conductance and transpiration rates from seedlings of shade tolerant, shade intolerant, and intermediate species in relation to microclimatological conditions

Serve as committee member:

Kevin Brinson (Ph.D. student, University of Delaware)

Nina Finger (Ph.D. student, University of Delaware)

Adam J. McKee (M.Sc. student, Thompson Rivers University, British Columbia, Canada)

Graduate students completed:

Served as committee chair:

John T. Van Stan, II (M.S., 2008)

Employment: Ph.D. student, University of Delaware, Newark, DE

Thesis: *Inter- and intraspecific variation of stemflow production from Fagus grandifolia and Liriodendron tulipifera: effects of bark microrelief and meteorological conditions*

Ethan E. Frost (M.S., 2006)

Employment: Ph.D. student, University of Delaware, Newark, DE

Thesis: *Throughfall variability in a southern Illinois broadleaved deciduous forest*

Emily D. Yates (M.S., 2003)

Employment: Chicago Botanical Garden, Co-Coordinator for Millennium Seed Bank Project, Chicago, IL

Thesis: *Recruitment of three non-native invasive plants into a fragmented forest of southern Illinois*

Served as a committee member:

Mark N. Demitroff (M.S., 2007)

Christopher A. Miehle (M.S., 2003)

Vincent G. McGowan (M.S., 2001)

COURSES TAUGHT (UNDERGRADUATE & GRADUATE)

Prior to University of Delaware:

Biosphere-Atmosphere Interactions

Earth's Biophysical Environments (traditional & web)

Environmental Impact Analysis

Forest Hydrology Field Methods

At University of Delaware:

Fall 2003: ENSC 425- *Environmental Field Methods* (Enrollment: 10)

Spring 2004: GEOG 652- *Seminar: Ecological Climatology* (Enrollment: 4)

Fall 2004: GEOG 235- *Conservation of Natural Resources* (Enrollment: 67), GEOG 451/651- *Microclimatology* (Enrollment: 8)

Spring 2005: ENSC 450- *Proseminar in Environmental Science* (Enrollment: 17)

Spring 2006: ENSC 450- *Proseminar in Environmental Science* (Enrollment: 18)

Fall 2006: GEOG 235- *Conservation of Natural Resources* (Enrollment: 40), GEOG 451/651- *Microclimatology* (Enrollment: 11)

Spring 2007: ENSC 450- *Proseminar in Environmental Science* (Enrollment: 14)

Fall 2007: ENSC 425- *Environmental Field Methods* (Enrollment: 10), GEOG 667- *Watershed Ecology* (Enrollment: 7)

Spring 2008: ENSC 450- *Proseminar in Environmental Science* (Enrollment: 11)

Fall 2008: GEOG 235- *Conservation of Natural Resources* (Enrollment: 39), GEOG 451/651- *Microclimatology* (Enrollment: 7)

Spring 2009: GEOG 342- *Bioclimatology* (Enrollment: 8)

Undergraduate and Graduate Student Directed Research Advisees:

Daniel R. Page (1999-2000)

William C. Bollinger, III (2002-2003)

Michael J. Mihalik (2003-2004)

Noel Wubben (2003-2004)

Lydia A. Leclair (2005-2006)

E. Rachel Bernstein (2007-2008)

Anna N. Bevan (2009-2010)

Ethan E. Frost (2000-2002)

Robert A. Hrabik (2002-2003)

Mark P. Neimeister (2003-2004)

Nicholas P. Klingaman (2004-2005)

Gregory Marchesiello (2007-2008)

Susanna M. Mage (2008-2009)

**ADVISEE AWARDS
& HONORS**

Anna N. Bevan, Undergraduate advisee (2009-2010)

Delaware Water Resources Center Research Internship Award

Ethan E. Frost, Ph.D. advisee (2007-2008, 2008-2009)

University Fellowship

Susanna M. Mage, Undergraduate advisee (2008-2009)

UDRF-REU, Undergraduate Research Scholar

Gregory D. Marchesiello, Undergraduate advisee (2007)

NSF EPSCoR Science & Engineering Research Scholar

Lydia A. Leclair, Undergraduate advisee (2005-2006)

Delaware Water Resources Center Research Internship Award

Emily D. Yates, Master's advisee (2004)

Arey Award for Outstanding Master's Thesis

William C. Bollinger, III, Undergraduate advisee (2003)

Southern Illinois University Undergraduate Research Prize

**SPECIALIZED PBL
TRAINING**

Problem Based Learning (PBL) Workshop

Institute for Transforming Undergraduate Education (ITUE)

University of Delaware

Certified Fellow (June 2005)

Institute for Transforming Undergraduate Education (ITUE)

University of Delaware

Assessment Workshop

Winter 2006 Faculty Institute
University of Delaware

Advanced PBL Workshop, "Taking PBL to the Next Level"
Winter 2006 Faculty Institute
University of Delaware

Advanced PBL Workshop, "Refining and Publishing PBL Problems"
Winter 2006 Faculty Institute
University of Delaware

PROFESSIONAL AND UNIVERSITY SERVICE

Professional service:

Editorial duties:

Editorial Board, *Publications in Climatology*

Journal manuscript, book publisher, and proposal reviewer:

Journal manuscript reviewer for:

Advances in Water Resources

Agricultural and Food Science

Agricultural and Forest Meteorology (4)

Agriculture and Human Values

Biogeochemistry

Climate Research

Ecohydrology

Global and Planetary Change

Forest Ecology and Management (3)

Hydrological Processes (3)

Hydrological Research Letters (Japan)

Hydrological Sciences Journal

Journal of Arid Environments

Journal of Environmental Informatics

Journal of Geography in Higher Education

Journal of Hydrology (6)

Journal of Vegetation Science

Physical Geography

Professional Geographer (2)

Publications in Climatology

Water International

Book reviewer for:

Rowman & Littlefield Publishers, Inc.

Proposal reviewer for:

National Science Foundation, Hydrologic Sciences Program (4)

National Science Foundation, Ecosystem Science Cluster

U.S. Civilian Research & Development Foundation

Association of American Geographers:

Chair, Cryosphere Specialty Group (2007- present)

Member, Publications Committee (2008-present)

Member, Board of Directors, Cryosphere Specialty Group (2005- 2007)

Eastern Snow Conference:

Member, Research Committee (2007- present)

Local Arrangements Coordinator, 2006 Joint ESC/CrSG Meeting, Newark, DE

Outreach activities:

Consulting expert, *The News Journal* (2003- present)

Duties: supply journalists with topical expertise for newspaper articles

Climatologist, Fair Hill Nature Center, Elkton, MD (2004- present)

Duties: maintain meteorological station on-site, *Wild about Weather* program

Member, Board of Directors, Fair Hill Nature Center, Elkton, MD (2004- 2007)

Duties: oversee operations, participate in fundraising & educational programs (k-12, adult)

Judge, State (Delaware) Geography Bee (2005-2006)

Duties: render a decision concerning the validity of a response when queries arose

Presenter, 2005 Water Festival at Bellevue State Park, DE

Duties: present information on field instrumentation to junior high students

Member, Conservation Commission, New Braintree, MA (1993-1996)

Duties: field site evaluation, wetlands delineation, administration of Wetlands Protection Act

University service:**University of Delaware****University posts:**

Assessment Faculty Fellow (2006- present)

Alpha of Delaware Chapter, Phi Beta Kappa, President (2009- present)

Alpha of Delaware Chapter, Phi Beta Kappa, Transcript Review Team (2006- 2009)

College posts:

College of Arts & Sciences Faculty Senate (2003-2004, 2007-2009)

Departmental posts:

Coordinator for Physical Geography (2009- present)

Delaware Valley Geographical Association, Council Member (2003-2007)

DOUG Faculty Co-Advisor (2006-2007)

Environmental Science Advisor (2004- present)

Environmental Studies Advisor (2009- present)

Undergraduate Career Advisor (2005-2008)

Departmental committees:

Academic Council, Interim Chair (Spring 2006)

Academic Council, Member (2009- present)

Graduate Program Committee, Member (2009)

Ph.D. in Geography Committee, Member (2005-2007)

Social Events Planning Committee, Member (2003- 2005)

Southern Illinois University, Carbondale**Departmental posts:**

Undergraduate Program Director (2001- 2003)

Undergraduate Advisor for Environmental Planning specialization (2001- 2003)
Preparer of Geography Undergraduate Assessment Report (2001- 2003)

Departmental committees:

Chair, GIScience Faculty Search Committee (Spring 2003)
Natural Resources Faculty Search Committee (Spring 2002)
Merit Pay Committee (Spring 2002)

PROFESSIONAL AFFILIATIONS

American Geophysical Union (AGU)
Association of American Geographers (AAG)
Delaware Geographic Alliance (DGA)
Eastern Snow Conference (ESC)
International Association of Hydrological Sciences (IAHS)
Phi Beta Kappa, Alpha Chapter of Delaware (PBK)
University of Delaware, Institute for Transforming Undergraduate Education (ITUE)