

# LESLEY-ANN DUPIGNY-GIROUX, Ph.D.

Vermont State Climatologist

Department of Geography

(Secondary appointment - Department of Geology; College of Education & Social Services)  
(Faculty affiliate - Environmental Sciences; Canadian Studies; Center for Research on Vermont)

University of Vermont

200 Old Mill Building

94 University Place

Burlington, Vermont 05405-0114

(802) 656-2146 (telephone)

(802) 656-3042 (facsimile)

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## ACADEMIC EXPERIENCE

University of Vermont	Associate Professor, 2003 - present Assistant Professor, 1997 - 2003
Southern Illinois University at Edwardsville	Assistant Professor, 1996 - 1997
McGill University	Lecturer, 1994 1995

## EDUCATION

<u>Doctor of Philosophy</u> , McGill University. Climatology & Geographic Information Systems	1996 (Oct.)
Dissertation: Techniques for rainfall estimation and surface characterization over northern Brazil.	
<u>Master of Science</u> , McGill University. Climatology and Hydrology.	1992 (Feb.)
Thesis: An analysis of the Temporal and Spatial Variability of the Rainfall and Runoff Regimes of Drainage Basins in Trinidad.	
<u>Bachelor of Science</u> , University of Toronto (High Distinction). Physical Geography and Development Studies.	1989
Thesis: An Analysis of Textural Variability in a Forest Soil.	
<u>G.C.E. (Cambridge) Advanced Level</u> , St. Joseph's Convent (Trinidad).	1979-1986

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## SCHOLARSHIPS/AWARDS

* Warren Fund for Geographical Information Systems (McGill University)	1995
* IGIF Award for the Best Proposed Research (Ph.D. thesis)	1994
* AM/FM International Scholarship	1993
* NOAA Colloquium on Operational and Environmental Prediction	1992
* Canadian Centre for GIS in Education Scholarship	1991

- continued -

- \* Intergraph Award for excellence in computer cartography. 1991
- \* Scarborough College In-Course scholarship. 1987
- \* Medal of Merit for Outstanding Contribution to Geography (St. Joseph's Convent) 1986

## UNIVERSITY/NATIONAL RECOGNITION

- \* Keynote speaker - 23<sup>rd</sup> National NSF EPSCoR conference, Nashville TN 2013
- \* Keynote speaker - 38<sup>th</sup> Annual Northeastern Storm Conference, Rutland VT 2013
- American Association of University Women (AAUW)
- \* Luncheon speaker, New England Regional Convention, Wellesley College, MA 2004
- \* Educational Foundation Fellow 2003
- University of Georgia
- \* Franklin Visiting Scholar (Inclusion and Diversity Leadership) 2010
- University of Vermont
- \* Keynote speaker - Center for Research on Vermont Annual Meeting 2010
- \* Faculty Fellow in Service-Learning 2004
- \* Fellow - Center for Research on Vermont 2000
- \* Vermonters in pursuit of excellence in research series 1999

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## SCHOLARSHIP

### PUBLICATIONS

#### BOOK

Dupigny-Giroux, L-A.. and Mock, C.J. (co-editors) (2009) Historical climate variability and impacts in North America, Springer Publishers.[Citations: 3 (Google Scholar)]

#### PEER-REVIEWED PUBLICATIONS

[\* denotes a student co-author]

Dupigny-Giroux, L-A., Toolin, R., Fortney, M.D. and Hogan, S. (2012) "The Satellites, Weather and Climate (SWAC) teacher professional development program: Making the case for climate and geospatial literacy", *Journal of Geoscience Education*, 60: 133-146. LADG contribution 60%.

Dupigny-Giroux, L.-A. (2010) "Exploring the challenges of climate science literacy: Lessons from students, teachers & lifelong learners, *Geography Compass*, 4/9 (2010): 1203–1217, 10.1111/j.1749-8198.2010.00368.x. [Citations: 5 (Google Scholar)]

Prevatt, D.O., Dupigny-Giroux, L. and Masters, F.J. (2010) "Engineering Perspectives on Reducing Hurricane Damage to Housing in CARICOM Caribbean Islands" *Natural Hazards Review*, Vol.11, No.4. CASCE, ISSN 1527-6988/2010/4-140-150. [Citations: 3 (Google Scholar); ISI Web of Knowledge Impact Factor:

ISI Web of Knowledge Impact Factor: 0.780]

Prevatt, D.O., Dupigny-Giroux, L.A. and Masters, F.J. (2010) Chapter 13 “Twenty-five years of Caribbean hurricane disaster mitigation” in *Wind Storm and Storm Surge Mitigation, (CDRM4)*, American Society of Civil Engineers, Reston VA, pp. 153-161. LADG contribution 30 %.

Dupigny-Giroux, L.-A. (2009) “Backward seasons, droughts and other bioclimatic indicators of variability,” in *Historical climate variability and impacts in North America*, Lesley-Ann Dupigny-Giroux and Cary Mock (Editors), Springer Publishers, pp.231-250.

Dupigny-Giroux, L.-A. (2008) “Introduction - Climate science literacy - A state of the knowledge overview,” *Physical Geography*, 29(6):483-486 [guest editor of special issue on Climate Literacy]. [Citations: 3 (Google Scholar)]

Dupigny-Giroux, L.-A. and Furtak-Cole\*, E. (2008) “Multiangular imaging of wetlands in New England,” in *Wetlands: Ecology, Conservation and Restoration*, Raymundo Russo (editor), Nova Science Publishers, Inc. pp. 7-14.

Dupigny-Giroux, L.-A., Ross, T.F., Elms, J.D., Truesdell, R. and Doty, S.R. (2007) “NOAA’s Climate Database Modernization Program - Rescuing, archiving and digitizing history,” *Bulletin of the American Meteorological Society*, Volume 88, No. pp.1015-1017. [Citations: 24 (Google Scholar); 16 (Web of Science); ISI Web of Knowledge Impact Factor: 3.475 in 2007 & 6.591 in 2012]

Dupigny-Giroux, L.-A. (2007) “Using AirMISR data to explore moisture-driven land use-land cover variations at the Howland Forest, Maine - a case study,” *Remote Sensing of Environment*, 107, pp.376-384. [Citations: 4 (Google Scholar); ISI Web of Knowledge Impact Factor: 3.013 in 2007 & 5.103 in 2012]

Biglin\*, K.A. and Dupigny-Giroux, L.-A. (2006) “The ecological impact of the Chittenden County Circumferential Highway: Mapping the road-effect zone” *Journal of Conservation and Planning*, Volume 2, pp. 1-31 (<http://www.journalconsplanning.org/volume2/bb8b/finalmanuscript.pdf>).

Dupigny-Giroux, L.-A. Hanning, J.R. and Engstrom, E. (2006) “Orographic influence on frontally-produced flooding in northern Vermont - The 14-15 July 1997 event”, *Physical Geography*, Volume 26, No. 2, pp. 1-38. [Citations: 1 (Web of Science); ISI Web of Knowledge Impact Factor: 0.333 in 2006 & 0.947 in 2012]

Dupigny-Giroux, L.-A., Blackwell\*, C.F., Bristow\*, S.W. and Olson\*, G.M. (2003) “Vegetation response to ice disturbance and consecutive moisture extremes,” *International Journal of Remote Sensing*, Volume 24, No. 10, 20 May, pp. 2105-2129. [Citations: 8 (Google Scholar); 6 (Web of Science); ISI Web of Knowledge Impact Factor: 1.138 in 2012]

Dupigny-Giroux, L.-A. (2002) “Climate variability and socioeconomic consequences of Vermont’s natural hazards: A historical perspective,” *Vermont History*, Volume 70, Winter/Spring, pp. 19-39.[Citations: 2 (Google Scholar);

Dupigny-Giroux, L.-A. (2001) “Towards characterizing and planning for drought in Vermont. Part I. A Climatological Perspective,” *Journal of the American Water Resources Association*, Volume 37, No. 3, pp.505-525. [Citations: 10 (Google Scholar); 6 (Web of Science); ISI Web of Knowledge Impact Factor: 1.956 in 2012]

Dupigny-Giroux, L.-A. (2001) "Towards characterizing and planning for drought in Vermont. Part II. Policy Implications," *Journal of the American Water Resources Association*, Volume 37, No. 3, pp. 527-531. [Citations: 1 (Google Scholar); ISI Web of Knowledge Impact Factor: 1.956 in 2012]

Dupigny-Giroux, L.-A. (2000) "Impacts and Consequences of the Ice Storm of 1998 for the North American northeast," *Weather*, Volume 55, No.1, pp.7-14. [Citations: 5 (Google Scholar); ISI Web of Knowledge Impact Factor: 1.539]

Dupigny-Giroux, L.-A. (1999) "The Influence of the El Niño-Southern Oscillation and other Teleconnections on Winter Storms in the North American Northeast - A Case Study," *Physical Geography*, Volume 20, No. 5, pp.394-412. [Citations: 5 (Google Scholar); 2 (Web of Science); ISI Web of Knowledge Impact Factor: 0.947 in 2012]

Dupigny-Giroux, L.-A. and Lewis, J.E. (1999) "A Moisture Index for Surface Characterization over a Semiarid Area," *Photogrammetric Engineering and Remote Sensing*, Volume 65, No. 8, pp. 937-945. [Citations: 17 (Google Scholar); 8 (Web of Science)]

Dupigny-Giroux, L.-A. (1999) "Localized Thunderstorm Activity and Flash Flooding in Vermont," *NESTVAL '98 Proceedings*, Volume XXVIII, pp. 41-49.

Dupigny-Giroux, L.-A. (1998) "Drought & its Monitoring: An Interdisciplinary Perspective," *NESTVAL '97 Proceedings*, Volume XXVII, pp.90-95.

#### CONFERENCE PROCEEDINGS

(Extended abstracts published following acceptance of oral presentations)

Prevatt, D.O., G.M. Marcelle, I. Kelman, L.-A. Dupigny-Giroux, and F.J. Masters, (2010) "On Reducing Hurricane Damage to Housing in the Caribbean Islands," 13th US-Japan Workshop on the Improvement of Structural Design and Construction Practices, April 20-22, Big Island, Hawaii.

Dupigny-Giroux, L.-A. and Loughner\*, C. (2004) "A synoptic climatology of flooding in New England," *Preprints, 14<sup>th</sup> Conference on Applied Climatology*, Seattle, Washington, Paper 1.3 (2 pages).

Dupigny-Giroux, L.-A., Ross, T.R., Doty, S.R. (2004) "Developing climate station histories for pre-20th century U.S. observing sites," *Preprints, 14<sup>th</sup> Conference on Applied Climatology*, Seattle, Washington, Poster 1.2 (8 pages).

Lee, J.E., Cannon, J.W., Ronco, J.A., Colby, J.A., Schoof, J., Sisson, P., McGill, C., Edson, J.B., Dupigny-Giroux, L.-A., Atkins, N.T., Taylor, D.M., Keim, B., Yang, H., Sawyer, C., Michaels, M. and Tongue, J.S. (2001) "The New England Weather Observation Network: A 21<sup>st</sup> Century Vision for Environmental Monitoring and Science Education in the New England States," *Preprints, 17<sup>th</sup> International Conference on Interactive Information and Processing Systems*, American Meteorological Society, Albuquerque, NM, pp. 92-96.

Dupigny-Giroux, L.-A. (1999) "Drought follows the deluge in Vermont," *Drought Network News*, Volume 11, No. 2, pp. 8-14.

## WORKS IN PROGRESS

Dupigny-Giroux, L.-A., "Climate literacy", in The International Encyclopedia of Geography, to be published by Wiley-Blackwell and the Association of American Geographers (2014). Invited submission.

Timofeyeva, M., Horsfall, F. Holligshead, A., Meyers, J. and Dupigny-Giroux, L.-A., "NOAA Local Climate Analysis Tool: Data, Methods, and Usability," proposed submission to the *Bulletin of the American Meteorological Society*, approved in August 2013.

Dupigny-Giroux, L.-A., Shonk\*, B. & Kunkel, K. "Changes in heavy precipitation over northern New England (1895-present)". Analysis complete

Dupigny-Giroux, L.-A. & students "A synoptic and geospatial analysis of Tropical Storm Irene in northern New England." Analysis complete

Dupigny-Giroux, L.-A., Raphael, M., Shepherd, J.M., Mote, T.L., Garton\*, K. and Chaplin\*, A. "The Diversity Climate Network - Implications for student recruitment and retention in Climatology." Data collection complete

Eastman, J.R. & Dupigny-Giroux, L.-A. "Relating phenological trends over New England to hemispheric teleconnections using the IDRISI Earth Trends Modeler".

## REPORTS

In the Nation's Best Interest: Making the Most of NOAA's Science Enterprise, A Report to the NOAA Science Advisory Board by the Research & Development Portfolio Review Task Force (2013). Appointed member of the Task Force.

*This report was commissioned by the NOAA Science Advisory Board to whom the final version was presented in February 2013, followed by its presentation to the NOAA Administrator for her interaction with the U.S. Congress.*

Horton, R., Solecki, W. and Rosenzweig (2012). Contributing author to the *Climate Change in the Northeast: A Sourcebook, for the NorthEast Region* chapter of the 2013 National Climate Assessment report, US Global Change Research Program, Office of Science and Technology Policy pp:28-32 & 225-229.

*This peer-reviewed report will be published in its entirety by the Island Press in either 2013 or 2014.*

Dupigny-Giroux, L.-A. (2012) Igniting a passion for climate, International Innovation, Research Media, United Kingdom, June pp. 79-81.

Dupigny-Giroux, L.-A. (2009) Blue sky thinking for climate education, Innovations in International Research, Research Media, United Kingdom, pp. 27.

Dupigny-Grioux, L.-A. (2009) Vermont's Changing Forests: Key Findings on the Health of Forested Ecosystems from the Vermont Monitoring Cooperative, Vermont Monitoring Cooperative, Co-lead author of the chapter on Weather and Climate, pp: 20-24.

Dupigny-Giroux, L.-A. (2003) Revision of the CLIM-60 - Climate of Vermont publication of the National Climatic Data Center. Available online at <http://www.uvm.edu/~vtstclim>

Dupigny-Giroux, L.-A. with the assistance of Blackwell, C.F., Bristow, S.W. and Olson, G.M. (2000) Mapping Ice Storm Damage in Vermont via SPOT/Landsat Imagery, Vermont Department of Forests, Parks & Recreation.

Dupigny-Giroux, L.-A. (1999) Winter/Spring Drought Conditions in Vermont, *Bug Bytes*, June, p.1.

Dupigny-Giroux, L.-A. (1998) "Highlights from Vermont Climate Symposium," *The State Climatologist*, Volume 21, Issue 4, Winter 1997, pp.2-3.

Dupigny, L.-A. (rapporteur) (1995) "Overview of NOAA's Role in Environmental Prediction," by Dr. William Hooke, Lecture Notes from the 1992 NOAA Colloquium on Operational and Environmental Prediction, June 2-26, Camp Springs, Maryland, pp. 1-7.

Dupigny, L.-A. (rapporteur) (1995) "Runoff Modeling," by Dr. Eric Anderson, Lecture Notes from the 1992 NOAA Colloquium on Operational and Environmental Prediction, June 2-26, Camp Springs, Maryland, pp.350-361.

Dupigny, L.-A. (1994) "The climatological context of drought in the Horn of Africa", in the Report on Drought in the Horn of Africa, prepared by the EROS Data Center for the USAID. Presented to the United States House of Representatives.

Dupigny, L.-A. (1992) An analysis of the Temporal and Spatial Variability of the Rainfall and Runoff Regimes of Drainage Basins in Trinidad, M.Sc. thesis, McGill University, published as C<sup>2</sup>GCR Report No.92-18.

## BOOK REVIEWS

Dupigny-Giroux, L.-A. (2004) New England Weather, New England Climate, by G. Zielinski and B. Keim, reviewed in *Bulletin of the American Meteorological Society*, Vol.85, Issue 5, pp:754-755.

Dupigny-Giroux, L.-A. (2004) New England Weather, New England Climate, by G. Zielinski and B. Keim, reviewed in *Vermont History*, Vol.74, Nos. 1&2, pp.77-79.

Dupigny-Giroux, L.-A. (1995) Managing Geographic Information Systems, by N. J. Obermeyer and J. K. Pinto, reviewed in *Cartographica*, Vol.32, Number 3.

Dupigny, L.-A. (1995) Simple Computer Imaging and Mapping - Practical Guide, by M. Pazner, N. Thies and R. Chavez, reviewed in *ACMLA Bulletin*, Number 92.

## PRESENTATIONS

### *PRESENTATIONS AT SCHOLARLY CONFERENCES*

(selected following abstract submission unless invited or keynote)

2013

"Climate science communication: Frameworks, challenges and strategies," *Keynote speaker on Global challenges in environment, society, and sustainability and paths to solution*, 23<sup>rd</sup> National NSF EPSCoR Conference - Research, Education, Innovation, and Entrepreneurship: EPSCoR as a Vehicle for

Delivering on National Priorities, Nashville Tennessee, 3-6 November, 2013.

“Why do we need a systems approach to climate change?” **Keynote banquet speaker**, 38<sup>th</sup> Annual Northeastern Storm Conference, Rutland, 9 March, 2013.

2012

Dupigny-Giroux, L.-A., Toolin, R.A., Morrissey, L., Fortney, M.D., Hogan, S., Pontius, J., Berryman, B., Shafer, J., Atkins, N., Shepherd, J.M., Mote, T.L. and Raphael, M.N., “Enhancing climate literacy by melding the atmospheric and geospatial sciences,” presented at the American Geophysical Union, San Francisco, California, December 3-7. Invited presentation.

Dupigny-Giroux, L.-A., “Overview of the climate-flooding relationship in Vermont,” presented at the 2012 Lake Champlain Flood Resilience Conference, University of Vermont, June 4-5. **[Invited session organizer for Building Human & Natural Resilience to Flooding in a Changing Climate]**. Primary Sponsor was the Lake Champlain Basin Program.

Dupigny-Giroux, L.-A., Climate change education literacy panel, **Invited panelist**, presented at the Association of American Geographers meeting, New York, New York, February 24-28.

Dupigny-Giroux, L.-A., Women IN the Discipline (WIND) Climatology, **Invited panelist**, presented at the Association of American Geographers meeting, New York, New York, February 24-28.

Dupigny-Giroux, L.-A., Stooksbury, D., Akyuz, A., Hubbard, K.G., Nielsen-Gammon, J.W. and Timofeyeva, M., AASC Recommendations for the Education of an Applied Climatologist, presented at the Association of American Geographers meeting, New York, New York, February 24-28.

2011

Mock, C.J., Slonosky, V.C., Burnette, D.J. and Dupigny-Giroux, L.-A. “North American Historical Climate: Current Status and Comments,” presented at the 28th INQUA Congress, Bern, Switzerland, July 20-27.

Dupigny-Giroux, L.-A. “Factors to be considered in defining and interpreting trends,” Applied Climatology Trends Panel, **Invited panelist**, 19th Conference on Applied Climatology/36<sup>th</sup> Annual Meeting of the American Association of State Climatologists and Practical Solutions for a Warming World: AMS Conference on Climate Adaptation, American Meteorological Society, Asheville, NC, July 18-22.

Dupigny-Giroux, L.-A. **Invited Senior Scientist**, NSF ADVANCE ASCENT (Atmospheric Science Collaboration and Enriching NeTworks) Workshop, Steamboat Springs, CO, July 12-15.

Dupigny-Giroux, L.-A. “Exploring Six Challenges to Achieving Climate Science Literacy: Lessons from Students, Teachers and Lifelong Learners, presented at the American Geographers meeting, Seattle, WA, April 12-16.

Dupigny-Giroux, L.-A., Global Climate Change Education panel, **Invited panelist**, Association of American Geographers meeting, Seattle, WA, April 12-16.

2010

Morris, W.B. and Dupigny-Giroux, L.-A. “Using the NIR/blue surface moisture index to explore feature identification at multiple spatial resolutions”, presented at the American Geophysical Union, San Francisco, California, December 13-18.

Dupigny-Giroux, L.-A., Raphael, M., Shepard, J.M. and Mote, T.L. "Attracting and retaining minority students in the climate sciences – the Diversity Climate Network (D-ClimNet)", presented at the Association of American Geographers meeting, Washington, D.C., April 14-18.

Dupigny-Giroux, L.-A. "Satellites, Weather and Climate (SWAC): Remote sensing meets the atmospheric sciences to enhance climate literacy", American Meteorological Society meeting, Atlanta Georgia, January 17-21.

2009

Dupigny-Giroux, L.-A. "A new indicator-based drought index for quantifying spatio-temporal fluctuations in 18<sup>th</sup> century New England," presented at the Association of American Geographers meeting, Las Vegas Nevada, March 22-27.

Dupigny-Giroux, L.-A. "Challenges to promoting climate literacy at the secondary and undergraduate levels", presented at Global Climate Change Research and Education Workshop, World Meteorological Organization, Geneva Switzerland, January 25-28.

2008

Dupigny-Giroux, L.-A. "Satellites, Weather and Climate (SWAC): A professional development program for K-12 teachers: Contributing to climate literacy," presented at the American Geophysical Union, San Francisco, CA, December 15-19.

Dupigny-Giroux, L.-A. "New England's changing climate: Implications for regional emergency management," presented at the National Emergency Management Association Mid-Year conference, March 8-13.

2007

Dupigny-Giroux, L.-A., "Improving the climate literacy of students, educators and the public: The AAG Climate Literacy Initiative," presented at American Geophysical Union, San Francisco, CA, December 9-14.

Dupigny-Giroux, L.-A., "Towards an improved understanding of climate and atmospheric processes in education and the media," presented at American Geophysical Union, San Francisco, CA, December 9-14.

Dupigny-Giroux, L.-A. "Using Service-Learning to enhance student learning in the atmospheric and geospatial sciences," presented at NESTVAL '07, New Haven, CT, November 2-4.

Dupigny-Giroux, L.-A. "Wetland monitoring using AirMISR imagery," presented at 103<sup>rd</sup> annual meeting of the Association of American Geographers, San Francisco, California, April 17-21.

Dupigny-Giroux, L.-A., Hanning, J.R., Engstrom, E.E. and Brouillette, M. "Using geospatial technologies in a local-mesoscale hydrometeorological flooding analysis," presented at the 2007 Vermont EPSCoR Annual Conference, Burlington, Vermont, March 28.

2006

Dupigny-Giroux, L.-A. "Multi-angular compositing of AirMISR data for surface feature characterization," MISR Data Users Science Symposium, California Institute of Technology, Pasadena, California, December 7-8.

2005

Dupigny-Giroux, L.-A., Hanning, J.R. and Engstrom, E. "Orographic influence on frontally-produced



flooding in northern Vermont presented at the 15<sup>th</sup> Conference on Applied Climatology, Savannah, Georgia, June 20-24.

Dupigny-Giroux, L.-A. "Using MISR data for monitoring surface moisture," presented at the 101<sup>st</sup> annual meeting of the AAG, Denver, Colorado, April 5-9.

2004

Dupigny-Giroux, L.-A. "A synoptic climatology of flooding in New England," presented at the 14<sup>th</sup> Conference on Applied Climatology, Seattle, Washington, January 11-15.

Dupigny-Giroux, L.-A., Ross, T.R., and Doty, S. "Developing climate station histories for pre-20th century U.S. observing sites" presented at the 14<sup>th</sup> Conference on Applied Climatology, Seattle, Washington, January 11-15.

2003

Biglin, K. and Dupigny-Giroux, L.-A. "Data collection techniques for a fire management project on the San Diego National Wildlife Refuge" presented at NESTVAL '03, East Hartford, Connecticut, October 10-11. (Kevin Biglin presenter)

Burke, E.E. and Dupigny-Giroux, L.-A. "Fluctuations in the Bermuda-Azores High and its influence on hurricane tracks in the North Atlantic Ocean" presented at NESTVAL '03, East Hartford, Connecticut, October 10-11. (Erin Burke presenter)

2002

Dupigny-Giroux, L.-A. "Exploring moisture indices for characterizing drought in Vermont," presented at the 13<sup>th</sup> Conference on Applied Climatology, Portland, Oregon, May 12-16.

Dupigny-Giroux, L.-A. "Hydrometeorological extremes in Vermont: Towards enhanced mitigation," presented at the Vermont EPSCoR Annual State Meeting, Burlington, Vermont, April 17.

Dupigny-Giroux, L.-A. "Could Maddox cold fronts be a contributor to flooding northern Vermont," presented at 98<sup>th</sup> Annual Meeting of the Association of American Geographers, Los Angeles, California, March 19-23.

Dupigny-Giroux, L.-A. "Identifying preferred locations for flooding in northern New England," presented at 98<sup>th</sup> Annual Meeting of the AAG, Los Angeles, California, March 19-23.

2001

van Loon, Harry and Dupigny-Giroux, L.-A. "Some Aspects of the Variability of the North Atlantic Oscillation," International Symposium on Climate Change and Variability in Northern Europe, Turku, Finland, June 6-8. (Harry van Loon, presenter).

Rock, Barrett N., Dupigny-Giroux, L.-A. and von Turkovich, Edward "Enhancing collaboration between emergency management and academia: Understanding climate variability and hazards in Vermont," presented at the Colloque Désordres Climatiques obligent!, St-Laurent, Québec, May 9-10 (en français).

Dupigny-Giroux, L.-A. "Linking Vermont's hydrometeorological extremes to large-scale forcings," presented at the 97th Annual Meeting of the Association of American Geographers, New York, February 27 - March 3.

2000

Dupigny-Giroux, L.-A. and Hanning, J.R. "Precipitation & Topography in GIS - Key Factors in Predicting

and Mitigating Damaging Floods to Farmlands in Vermont: A Watershed Approach,” presented at the Northeast Arc Users Group Conference, Killington, Vermont, October 1-4.

Dupigny-Giroux, L.-A. “Updating the ice storm damage - Mapping ice storm damage in Vermont via SPOT/Landsat Imagery,” Ice Storm Research Monitoring Workshop, USDA Forest Service, Dorchester, New Hampshire, September 21.

Dupigny-Giroux, L.-A. “The drought planning process in Vermont - Where do we go from here?” presented at the American Association of State Climatologists Meeting, Logan, Utah August 6-9.

Dupigny-Giroux, L.-A., Blackwell, C.F., Bristow, S.W. and Olson, G.M. “Mapping Ice Storm Damage in Vermont via SPOT/Landsat Imagery,” presented at the American Geophysical Union, Washington D.C., May 29 - June 3.

Dupigny-Giroux, L.-A. “Towards Drought Planning for Vermont,” presented at 96th Annual Meeting of the AAG - Pittsburgh, Pennsylvania, April 4-8.

1999

Dupigny-Giroux, L.-A. “Climate Outreach Activities in Vermont” presented at the 11<sup>th</sup> Conference on Applied Climatology, 79<sup>th</sup> American Meteorological Society Annual Meeting, 10-15 January, Dallas, Texas.

1998

Dupigny-Giroux, L.-A. “Thunderstorm Activity and Flash Flooding in Vermont,” presented at NESTVAL ‘98, Montreal, Quebec, October 16-18.

Dupigny-Giroux, L.-A. “The Vermont State Climatology Office - Overview of Activities” presented at the American Association of State Climatologists Meeting, Duluth, Minnesota, August 5-8.

Dupigny-Giroux, L.-A. “Did El Niño help to spawn the Ice Storm of 1998?” presented at the American Geophysical Union Spring Meeting, Boston, Massachusetts, May 26-29.

Dupigny-Giroux, L.-A. “Remote Sensing Applications in Hydroclimate Studies,” presented at 94th Annual Meeting of the AAG - Boston, Massachusetts, March 25-29.

1997 and earlier

Dupigny-Giroux, L.-A. “Drought and Drought Monitoring - An Interdisciplinary Review”, presented at NESTVAL ‘97, Salem, Massachusetts, November 7-9.

Dupigny-Giroux, L.-A. “The proposed validation of a NOAA/AVHRR rainfall algorithm,” presented at the American Geophysical Union Spring Meeting, Baltimore, Maryland, May 27-30.

Dupigny-Giroux, L.-A. “Surface feature characterization over Northern Brazil using PCA,” presented at the Association for Arid Lands Studies 20th Annual Conference, Albuquerque, New Mexico, April 23-26.

Dupigny-Giroux, L.-A. “Moisture characterization over Northern Brazil,” presented at GIS/LIS ‘96, Denver, Colorado, November 19-21, 1996. <http://www.asprs.org/asprs/GIS96.html>

Dupigny, L.-A. and Lewis, J.E. “Precipitation Generating Systems - Spatial Integrity and Resolution Size,” presented at the International GCIP/MAGS Workshop on Scaling in Hydrometeorological/Hydrologic

Processes and Models, Victoria, British Columbia, September 19-23, 1994.

Dupigny, L.-A. and Lewis, J.E. "The role of teleconnections in influencing the rainfall patterns on the Caribbean island of Trinidad," presented at the Fourth International Conference on Precipitation - Hydrological and Meteorological Aspects of Rainfall Measurement and Predictability, Iowa City, April 26-28, 1993.

#### *INVITED LECTURES/PRESENTATIONS*

*(non-peer-reviewed venues)*

"2050 Climate Projections: Strategizing for an Uncertain Future," Resilient Vermont: Solutions Summit, Invited, Sugarbush Resort, Warren VT, 20-21 May, 2013.

"Adapting Nonpoint Source Planning and Management to Climate Change and Extreme Weather Events," **Invited panelist**, New England Interstate Water Pollution Control Commission, 24<sup>th</sup> Annual Nonpoint Source Pollution Conference, Burlington, 14-15 May, 2013.

"Tropical Storm Irene from a climatology point of view - Implications for Transportation, 100<sup>th</sup> Anniversary of the Vermont Society of Engineers and April Meeting of the Vermont Section of the ASCE (American Society of Civil Engineers), Burlington, 1 May 2013.

Faculty mentor (with Jon D. Erickson and Amy Seidl) for 10 undergraduates presenting on the effects of Climate Change in Vermont, Senator Bernie Sanders Global Warming Conference, Montpelier High School, 16 March, 2013.

"How do climate variability and change influence Vermont's agriculture?", NOFA (Northeastern Organic Farmers Association) Vermont Winter Conference, Burlington, 15-17 February, 2013

"Climate change and variations: From the IPCC to Vermont," Vermont NSF EPSCoR Research on Adaptation to Climate Change (RACC) mediated modeling workshop, Sheraton Conference Center, Burlington, 13 November, 2012.

"Climate change: Towards environmental Stewardship," Invited Session Leader, Environment and Equity Student Leadership Conference, ECHO , 20 October, 2012.

"Tropical Storm Irene & other historical cyclones: Implications for Regional Planning ," Central Vermont Regional Planning Commission, Barre, VT, 9 October, 2012.

**Invited panelist and discussant** on climate change in Vermont from a climatologist's perspective, following Dr. David G. Anderson's lecture "Climate Change and Human Culture: Lessons from the Past for the Future," part of Vermont's Archaeology Month, Montpelier, VT, 12 September 2012.

"Revisiting Tropical Storm Irene one year later - The new flood of record for southern Vermont," Vermont Institute of Natural Science, Quechee, VT, 20 August 2012.

"The climate change record and how it has affected communities," NSF VT-EPSCoR Research on Adapting to Climate Change, St. Michael's College, 27 June.

Department Leadership Workshop sponsored by the Association of American Geographers (AAG) on "Promoting Diversity in Geography: Strategies to Improve Inclusion, Broaden Participation, and

Assess Actions." **Invited panelist**. University of Colorado - Boulder, 13-16 June, 2012.

"Overview of the climate-flooding relationship in Vermont," presented at the 2012 Lake Champlain Flood Resilience Conference. [**Invited session organizer** for Building Human & Natural Resilience to Flooding in a Changing Climate]. Lake Champlain Basin Program was the primary sponsor, University of Vermont, 4-5 June 2012.

"Climate change introduction," NSF VT-EPSCoR Research on Adapting to Climate Change, St. Michael's College, 29 May, 2012.

"How do climate variability and change influence Vermont's agriculture," Vermont Agricultural Resilience in a Changing Climate, UVM, 11 May, 2012.

"Climate change 101:Tools and understanding for integrating the atmosphere into the K-12 curriculum" Champlain Basin Education Initiative, Climate Change Workshop for K-12 educators, St. Michael's College, 10 March, 2012.

"Tropical Storm Irene: A synoptic meteorology and geospatial examination of the new flood of record," Municipal and Irene Mapping Conference, Vermont Center for Geographic Information, Montpelier, 26 January, 2012.

"Global warming/Climate change: Relevance to Vermont and Northern New England," UVM Retired Faculty & Administrative Officers Spring Luncheon, 19 May, 2011.

"Vermont's Weather and Climate: How they influence the State's Forests and Crops," Springfield Osher Lifelong Learning Institute, Springfield, 10 May, 2011.

"Weather, climate and climate change: Mechanisms and implications for Vermont's agriculture and forests," UVM Osher Lifelong Learning Institute, 16 March, 2011

"What's happening in our own backyards - Understanding climate change locally", Green Mountain Academy, Manchester, Vermont, 23 September 2010.

"Backward seasons, droughts and sugar maple" Center for Research on Vermont, **Keynote speaker**, 4 May 2010

"Reconstructing the climate history of New England" Shirley Historical Society, Shirley Massachusetts, 12 March, 2010.

"Understanding climate change locally" The Nature Conservancy, Vermont Natural History Series, Castleton State College, Castleton, 11 March, 2010.

"What's happening in our backyards - Understanding climate change locally," Springfield Osher Lifelong Learning Institute, Springfield, Vermont, 9 March 2010.

"Storms, droughts and floods: The influence of weather and climate on our forests", Vermont Monitoring Cooperative meeting, UVM, 26 October, 2009.

"What's happening in our backyards - Understanding climate change locally," Osher Lifelong Learning Institute, Montpelier, Vermont 7 October 2009.

“Climate history of New England: special reference to Vermont and New Hampshire”, Harvard Forest (Harvard University), Petersham, Massachusetts, 1 October, 2009.

“Everything you wanted to know about climate”, Wake Robin Community, Shelburne, Vermont 14 July, 2009

“So you want to know about climate change?” Junior Jump Off, UVM, 22 May, 2009.

“Mining historical weather records across Vermont”, Rutland Free Library, Rutland, Vermont, 20 May, 2009.

“Everything you wanted to know about climate (and more)”, Elder Education Enrichment Spring 2009 Series (associated with UVM’s Osher Lifelong Learning Institutes), 20 March 2009.

“The climate of Lake Champlain: 1609-present” Lake Champlain Basin Program, Champlain Quadricentennial Workshop, St. Michael’s College, 19 March, 2008.

“Impacts of storms in Vermont on our forests,” Storms mitigation, planning, response and recovery focusing on urban trees workshop, Vermont Department of Forests, Parks and Recreation, Montpelier, Vermont, 19 September, 2007.

“Vermont’s natural hazards: climate meets the landscape” presented at Vermont Geographic Alliance Teachers’ workshop, St. Michael’s College, 24 July, 2007.

“Vermont a variable and changing climate,” presented at The Nature Conservancy, Kellogg Hubbard Library, Montpelier, Vermont, May 26, 2006.

“The role of climate in Vermont’s development and settlement” presented at the McClure Library, Pittsford, VT, September 20, 2005.

“How does a climatologist use remote sensing?” presented at the ECHO at the Leahy Center for Lake Champlain, July 2005.

“Treasure hunting for historical weather records in Vermont - the CDMP project,” presented at the Center for Research on Vermont - Research-in-Progress Seminar Series, February 28, 2005.

Luncheon speaker, American Association of University Women, New England Regional Conference, Wellesley College, Massachusetts, presented October 16, 2004.

“Mining the treasure trove of historical climate data in Vermont,” Brownell Library, Essex Junction, Vermont, April 28, 2004.

“Ongoing research on Vermont’s climate and natural hazards,” St. Albans Rotary Club, St. Albans, Vermont, November 4, 2003

“The flood of 1927 - A hydroclimatological overview,” Vermont Social Studies Summer Institute, July 1, 2002.

“Climate of Vermont - A primer,” Field Naturalists program, School of Natural Resources, University of Vermont, March 3, 2002.

“ Clouds, thunderstorms and lightning,” Vermont Torah Academy, February 7, 2002.

“Implications of changing temperatures and precipitation patterns for Vermont’s surface waters,” Potential Impacts of Global Climate Change on Vermont’s Surface Waters panellist, Vermont Water Resources and Lake Studies Center, 2001 Annual Meeting, October 12, 2001.

“Introducing mapping: On the road to GIS” Williston School, Williston Vermont, May 14, 2001.

“How has climate influenced Vermont’s economy? A Historical Perspective,” presented at the Vermont Landscape Conference: Views of the Past, Visions of the Future, Center for Research on Vermont, March 31, 2001.

“The role of climate in Vermont’s agriculture” presented to the International Dwarf Fruit Tree Association, June 25, 2000.

“The face of drought in Vermont and lessons learned from the 1998-1999 event,” presented at the Center for Research on Vermont - Research-in-Progress Seminar Series, April 26, 2000.

“When the mountain roars, close your doors - and other features of Vermont’s climate,” Grand Isle Rotary Club, September 21, 1999.

“The Whys and Wherefores of Vermont’s Climate,” University of Vermont, Ecology Evolution Lunch Seminar, Department of Biology, September 17, 1999.

“ State of Vermont Climate Activities,” Northeast State Climatologists Meeting, Cornell University, June 21, 1999.

“Hurricanes, Tornadoes and other severe storms,” Camel’s Hump Middle School, Richmond Vermont, June 8, 1999.

“The Face of Flooding in Vermont - Towards an updated hydroclimatology for the state”, Middlebury College, Environmental Studies Colloquium Program, March 4, 1999.

“The Great Ice Storm of January 1998”, Lake Champlain Basin Science Centre - “Eyes on the Ice Storm Speaker Series”, Burlington, Vermont, February 22, 1998.

#### *OTHER PRESENTATIONS*

“What caused the Great Ice Storm of January ‘98?” University of Vermont, Department of Geography, Brown Bag Lunch Seminar, March 11, 1998.

“The challenge of spatial interaction”, Inaugural Symposium for Statewide Collaboration in Geographic Information Systems in Vermont, University of Vermont, December 9, 1997.

“The status of climate in Vermont”, Inaugural Symposium for Statewide Collaboration in Climatology/Meteorology in Vermont, University of Vermont, December 2, 1997.

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#### **TELEVISION PROGRAMMING & MEDIA INTERVIEWS**

- 2008 National Geographic Earth 2008  
EPSCoR Weather and Climate programming on Vermont Public Television
- 2002 NSF-funded Maine Public Broadcasting Service (PBS) program QUEST on the role of climate change in New England.
- Print, television & radio interviews - Burlington Free Press, WCAX, Rutland Herald, Local Banquet, Brattleboro Informer, Times Argus, UVM Record, Vermont Quarterly, WDEV radio, Newport Daily Express, Stowe Reporter, Fox44 News, Vermont Public Radio, Seven Days, Vermont Woman (*Vermont*)  
- Boston Globe, Reuters-Boston, Plattsburgh Radio (*regional*)  
- Wall Street Journal, NBC Nightly News with Brian Williams, New York Times, Los Angeles Times, CNN Radio Atlanta, Associated Press, USA Today (*national*)  
- The Breakfast Club, Hot 102 FM, Kingston Jamaica
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## FUNDING

### EXTRAMURAL FUNDING

- \* NOAA PACE Postdoctoral Fellowships Program 2013 - 2015  
- Hosting a Postdoc Applying Climate Expertise (PACE) Fellow to quantify future interactions among a changing climate, human health and the health and management of Vermont's forests and air quality. A partnership with the Vermont Agency of Natural Resources and the Vermont Department of Health. PI & primary mentor.  
\$103,868
- National Science Foundation 2013  
- NSF GEO-1341620 - Supplemental award to GEO-1034945 "Track 2: Satellites, Weather and Climate: A professional development teacher collaborative to enhance literacy in the climate, atmospheric and geospatial sciences." Funding used to host the aforementioned Postdoc Applying Climate Expertise (PACE) Fellow. PI \$43,057
- \* Center for Disease Control (CDC) 2012-2014  
"Building Resilience Against Climate Effects in Vermont." L. Cragin (PI) and D. Grass (CoPI) Vermont Department of Health. Dupigny-Giroux is a UVM Collaborator with the commitment of \$15,000 per year to fund personnel working on climate-related health indicators in a geospatial format.  
\$249,877
- \* National Science Foundation 2012 - 2013  
NSF ARC 1241114: LOCAL TO POLAR — Using local meteorological and ecological events to increase knowledge of global climate change.  
- Supplemental award to Dr. Cathleen Geiger of University of Delaware. Her primary award is NSF ARC-1107725 "Precision, Accuracy, and Aliasing of Sea Ice Thickness from Multiple Observing Platforms." to address a fundamental set of science questions that are aligned with VT and NH educational standards at each grade level.  
- leverages Dupigny-Giroux award NSF GEO-1034945 "Track 2: Satellites, Weather and Climate: A professional development teacher collaborative to enhance literacy in the climate, atmospheric and geospatial sciences" \$70,000

*- Funding was used to create a documentary video about Tropical Storm Irene in Vermont, its climatological perspective and the ways in which global processes can affect local impacts. The documentary will accompany K-12 curricula that are being developed by the Vermont Institute of Natural Sciences (VINS).*

- \* National Climatic Data Center - American Association of State Climatologists 2012  
 " Quantifying heavy precipitation events in Vermont and northern New England" PI  
 \$2974
- \* National Climatic Data Center - American Association of State Climatologists 2011  
 "Quantifying climate variations in Vermont and environs and establishing the geospatial infrastructure of ongoing research and analysis" PI \$2640
- \* National Science Foundation 2010-2014  
 "Track 2: Satellites, Weather and Climate: A professional development teacher collaborative to enhance literacy in the climate, atmospheric and geospatial sciences"  
 [PI with R. Toolin (CESS - CoPI), L. Morrissey (RSENr - CoPI), B. Berryman & J. Shafer (Lyndon State College - CoPIs)] \$489, 381
- \* National Science Foundation 2009-2013  
 "Creating a Diversity Climate Network (D-ClimNet) to enhance the climate sciences pipeline of minority students from high school to graduate levels"  
 [PI with Marilyn Raphael (UCLA), Marshall Shepherd and Thomas L. Mote (UGA)]  
 \$199,519
- \* National Science Foundation 2009-2014  
 "Robert Noyce Scholarship Program at the University of Vermont"  
 [co-PI with R. Toolin PI (CESS)and R. Waterman co-PI (Chemistry)] \$899,926
- \* Vermont Department of Education - Math & Science Partnership (MSP) Grant 2009-2010  
 "Vermont Secondary Science Partnership (VSSP): Developing Professional Learning Communities (TLC) in Science Education [co-PI with Regina Toolin (PI) (CESS) and Rory Waterman (Chemistry)] \$74,990
- \* National Science Foundation 2008-2010  
 "Satellites, Weather and Climate (SWAC) - Contributing to climate education and literacy"  
 [PI with co-PI Regina Toolin (CESS)] \$149,466
- \* National Climatic Data Center 2006  
 "Enhancing the Vermont SCO's historical and data access mission" PI \$5,500
- \* National Climatic Data Center 2005  
 "Enhancing the Vermont SCO's historical and data access mission" PI \$1,977
- \* National Climatic Data Center  
 "Task order for continuing CDMP FORTS database build addition for State Climatologists' mini-projects" PI 2004 \$6,700  
 "Expanding the pre-1948 climate station histories for Vermont" PI 2003 \$2,500
- \* AAUW Educational Foundation - American Fellowship - Shirley Farr Fellowship 2003



Summer Publication Grant “A synoptic climatology of flooding in New England”		\$6,000
* AAAS Women’s International Science Collaboration (WISC) Program (NSF funded)	2002	
“Quantifying the role of Maddox and other frontal events in severe flooding in northeastern North America (with special reference to Québec and Vermont)”		\$4,000
* NSF EPSCoR (Vermont)	2001	
Supplemental start-up funding		\$9,688
* EPA EPSCoR Stimulus Grants Program (Vermont)	2000	
“Developing a baseline for monitoring drought stress on forested ecosystems in Vermont” PI		\$5,000
* Vermont Department of Forests, Parks and Recreation	1999	
“On-going assessment of ice-affected foliage via remotely- sensed imagery” PI		\$6, 000
* 1998 State Climatologist Exchange Program	1998	
“Updating the climate resource base of Vermont”		\$2,500

## INTRAMURAL FUNDING

* Vermont NASA EPSCoR - Faculty Award	2012	
“Small-Scale Grant: Collaboration with the Jet Propulsion Laboratory on the use of multiangular, polarized and hyperspectral imagery to snow cover and wetlands field sites”		\$29, 156
* University of Vermont, Irene Undergraduate - Faculty Research Awards	2012	
“Conducting a synoptic meteorological and geospatial analysis of the extreme precipitation during Tropical Storm Irene: A contribution to flood mitigation planning”, Faculty advisor for four undergraduates		\$2911
* University of Vermont, Service-Learning course planning and implementation grant	2009	
“Creating a field experience for remote sensing undergraduates to focus on the dynamics of wetland health and moisture characteristics”		\$700
* University of Vermont, Spring 2009 President’s Distinguished Lecture series	2009	
Kerry A. Emanuel, MIT		\$5,000
* University of Vermont, Service-Learning course planning and implementation grant	2008	
“Retooling a first-year Service-Learning course on remote sensing to focus on the stream morphology policy issues”		\$570
* University of Vermont, Instructional Incentive Grant	2006	
“Expanding the Geography department’s curriculum with a new Service-Learning TAP course on remote sensing”		\$3130.66
* University of Vermont, International Instructional Incentive Grant	2006	
“Enhancing remote sensing pedagogy by creating a new linkage between the University of Vermont and the Joint Research Centre (JRC) of the European		

Commission	\$940	
* University of Vermont, Service-Learning course planning and implementation grant Climatology and natural hazards	\$943	2005
* University of Vermont, Fall 2004 President's Distinguished Lecture series (co-hosted with Prof. Robert Rodgers) Richard Talbert, UNC	\$5,000	2004
* University of Vermont, Faculty Fellowship for Service-Learning	\$1,000	2004
* University of Vermont, Instructional Incentive Grant "Enhancing the Geography Department's intermediate remote sensing course via fieldwork and an international visit to the Canadian Centre for Remote Sensing"	\$3,000	2003
* University of Vermont Centre for Teaching and Learning Teaching Support Award (advanced GIS course)	\$450	2003
* University of Vermont Centre for Teaching and Learning Teaching Support Award (intermediate remote sensing course)	\$200	2001
* University of Vermont, Dean's Fund for Faculty Development "Enhancing GIS teaching potential by attending an ArcView workshop" (joint proposal with Professors Carmody and Wemple)	\$4,068	2000
* University of Vermont, Instructional Incentive Grant "Enhancing Teaching Effectiveness via a Geosciences Faculty Workshop"	\$644	2000
* University of Vermont, College of Arts & Sciences Dean's Discretionary Fund "Creating an alliance with the University of Nebraska-Lincoln"	\$350	1999
* University of Vermont, Instructional Incentive Grant "Climatology and Natural Hazards" - new course	\$2,500	1998
* University of Vermont, University Committee on Research and Scholarship "Severe Precipitation Events in Vermont During 1997 and 1998: A Quantification using Remotely-Sensed Imagery"	\$5,000	1998
* University of Vermont, Dean's Fund for Faculty Development "Inaugural Symposium for state wide collaboration in Climatology/Meteorology & Geographic Information Systems in Vermont"	\$2,000	1997

## RESEARCH EXPERIENCE

2000 (August) National Center for Atmospheric Research      SCIENTIFIC VISITOR

- Examined variations in the North Atlantic Oscillation from sea level pressure data.

1998 (July)      National Climatic Data Center

- Participated in the State Climatologist Exchange Program to update existing reports on the climate of Vermont; to document climate-related hazards across the state; and to reorganize the Vermont State

Climatologist World Wide Web homepage to facilitate accessibility and readability.  
<http://www.uvm.edu/~ldupigny/sc>

1992 (June) National Oceanic and Atmospheric Administration

► Participated in the NOAA Colloquium on Operational and Environmental Prediction, for doctoral students to acquire familiarity with techniques used in climate monitoring, weather analysis, hydrologic and oceanographic prediction, via a series of lectures and interactive workshops and demonstrations.

1992 (January)

► Invited participant (rapporteur) at the conference on the Impacts of Climatic Variations and Sustainable Development in semi-arid regions (ICID), Fortaleza (Brazil), January 27-February 1.

1990-1996

McGill University

RESEARCH ASSISTANT

► Involved in the analysis of hydroclimatological data via statistical, GIS and remote sensing techniques.

1990 (Summer)

National Center for Atmospheric Research

SCIENTIFIC VISITOR

► Analyzed rainfall and runoff data via spectral techniques.

1988 (Summer)

University-of-Toronto

RESEARCH ASSISTANT

► Performed pedologic analyses on the characteristics of soil cores extracted from Perch Lake (Ontario), as part of my Bachelor of Science thesis.

## TEACHING

### TEACHING EXPERIENCE

Fall 1997 -

University of Vermont

Associate Professor

- Weather, Climate and Landscapes (GEOG 040)
- Geotechniques (GEOG 081)
- Satellites and airplanes: examining the earth (GEOG 085)
- Climatology (GEOG 143)
- Intermediate GIS (GEOG 184)
- Remote Sensing (GEOG 185)
- Climatology and Natural Hazards (GEOG 246)
- Satellite Climatology and land-surface processes (GEOG 281)

Fall 1996-Spring 1997

Southern Illinois University at Edwardsville

Assistant Professor

- Meteorology (GEOG 211-003, 004)
- Climatology (GEOG 314)
- Geography of Latin America (GEOG 334)

1995 (Winter)

McGill University

Lecturer

1994 (Summer)

- Geographic Information Systems II (183-306B,C).

1993 (Fall)

McGill University

Teaching Assistant

- ▶ Geographic Information Systems II (183-306A).
- ▶ Geography of the Caribbean (183-310B).

(Fall 1993)  
(Winter 1990)

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**TEACHING MODULES**

Dupigny-Giroux, L-A. (1998) "Tutorial for Designing a Digitizing Project," The NCGIA GIS Core Curriculum for Technical Programs, Unit 13. [http://www.ncgia.ucsb.edu/cctp/units/dig\\_tutorial/tutorial\\_f.html](http://www.ncgia.ucsb.edu/cctp/units/dig_tutorial/tutorial_f.html)

Dupigny-Giroux, L-A. (1997) "Digitizing Maps," The NCGIA GIS Core Curriculum for Technical Programs, Unit 13. <http://www.ncgia.ucsb.edu/education/curricula/cctp/units/unit13/13.html>

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**POSTDOCTORAL FELLOWS SUPERVISED**

Dr. E. Oswald, NOAA PACE Postdoctoral Fellow, 2013 - 2015

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**GRADUATE STUDENTS SUPERVISED**

K. Biglin, "Ecological impacts of the Chittenden County Circumferential Highway: Mapping the Road-effect zone." Department of Geography, University of Vermont, Primary Advisor. M.A. completed 2005

K. Halverson, "A regional assessment on the influence of climate forcings on wildfire characteristics across the United States: 1986-1996". Department of Geography, University of Vermont, Primary Advisor. M.A. completed 2002

E. Seddon, "Trace Metals in Peabody Pond and Jordon Pond: A Case Study of New England's Historical Landscape Change in the Former Mill Ponds of the Scituate Reservoir Watershed, Rhode Island." Department of Geography, University of Vermont, Primary Advisor. M.A. completed 2008

T. Kirchoff, "Hydroclimatological effects of ice-jam flooding on the Passumpsic River, Lyndonville, Vermont.," Department of Geography, University of Vermont, Primary Advisor. M.A. incomplete.

**UNDERGRADUATE STUDENTS SUPERVISED**

E. Burke, Department of Geography, University of Vermont. B.A. completed 2

**THESIS/DISSERTATION COMMITTEE MEMBER**

K. Dianiska, M.S. candidate, Department of Geology, University of Vermont, External Chair. 2013-present

M. Holzer, Ph.D. candidate, Rutgers University, External Committee member. 2011- present

J. Hanley, Ph.D. candidate, Department of Civil and Environmental Engineering, University of Vermont, 2012-present

M. Isselhardt, M.S. Department of Plant and Soils Science, University of Vermont, 2007-2008.

E. Quigley, M.S. Rubenstein School of Natural Resources, University of Vermont, 2006-2007

Wheeler, M.S. Rubenstein School of Natural Resources, University of Vermont, 2005.

B. Lazarus, M.S. Rubenstein School of Natural Resources, University of Vermont, 2003-2004.

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**ACADEMIC/PROFESSIONAL WORKSHOPS ATTENDED**

Expert Witness Training Academy, William Mitchell College of Law, St. Paul Minnesota, July 29 – August 3, 2012.

Department Leadership Workshop sponsored by the Association of American Geographers (AAG) on "Promoting Diversity in Geography: Strategies to Improve Inclusion, Broaden Participation, and Assess Actions." University of Colorado - Boulder, June 13-16, 2012.

Workshop on exploring and using Multi-angle Imaging SpectroRadiometer (MISR) data, NASA Langley Atmospheric Science Data Center (ASDC), American Geophysical Union Spring meeting, May 21, 2004.

Service Learning Institute with Edward Zlotzak, Vermont Campus Compact, September 26, 2003.

Engaging students in the classroom, University of Vermont, Faculty Mentoring Program, March 29, 2002.

Advanced ArcView GIS, Environmental Systems Research Institute Inc., January 3-5, 2001.

Workshop for Early Career Faculty in the Geosciences: Teaching, Research and Managing Your Career, Montana State University, July 25-30, 2000.

Severe Weather and Radar Bow Echo Workshop, National Weather Service at University of Vermont, May 23, 2000.

Communication & Learning Styles Workshop, University of Vermont, Centre for Teaching and Learning, September 24, 1999.

GCIP/DACOM (GEWEX Continental-Scale International Project/Data Collection and Management) Data Short Course, St. Louis University, June 7, 1998.

NAGT (National Association of Geoscience Teachers) Workshop on Innovative and Effective Teaching in the Geosciences, American Geophysical Union Meeting, May 31, 1997.

Technical Seminar on VXI and VXI based data acquisition, National Instruments, St. Louis, Missouri, May 7, 1997.

Primary Trait Analysis: Assessment for the Classroom and the Senior Assignment, SIUE (Southern Illinois University at Edwardsville), April 7, 1997.

Strategies for the Improvement of Writing in your Classroom, SIUE (Southern Illinois University at Edwardsville), March 3, 1997.

Assessment in the Classroom: Guiding Our Students Toward Success, SIUE (Southern Illinois University at Edwardsville), January 22, 1997.

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### ACADEMIC AND OTHER UNIVERSITY RELATED SERVICE

#### Department of Geography

- \* organizer of the NESTVAL regional Geography conference 2005 - 2006
- \* faculty advisor - Gamma Theta Upsilon (Honors Society) 2005- present
- \* coordinator of the annual GIS day during Geography Awareness Week 2000 - 2002

#### University of Vermont

- \* Acting Chair 2011 - 2012
  - Department of Geography
- \* Interim Director
  - Canadian Studies Program 2013 (Spring)

#### Search Committee member

- \* College of Education & Social Services (Elementary Science Education) 2008-2009
- \* Rubenstein School of Environment and Natural Resources
  - Dean's Search Committee- appointed by UVM President E. Thomas Sullivan 2013 - 2014
  - Search Committee member (tenure track Atmospheric Scientist) 2005 - 2006
- \* Search Committee member for the Chair
  - Department of Geology (Committee Chair) 2010
  - Department of Geography 2004
  - Department of Art 1999
- \* Advisory Board/Committee Member
  - Vermont Agricultural Resilience in a Changing Climate Initiative 2013-2015
  - Center for Teaching and Learning (CTL) 2011
  - CUPS (Community-University Partnerships and Service-Learning) 2005 - 2009

- \*Women's Summit 2013 (Fall)
  - Planning committee member

- \* Center for Research on Vermont Program (Executive Committee member) 2005 - 2008  
2008 - 2011

- \* Faculty Senate Educational Technologies Subcommittee (member) 2005 - 2006
- \* Faculty Senate Educational and Research Technologies committee (member) 2006 - 2008

- \* Faculty advisor 2012- present
  - Students Helping Others Respect the Environment (SHORE) student club

- \* NSF EPSCoR Environmental Science Initiative

- Focus group member	2001 - 2002
- GIS coordinator for research data program	2003 - 2006
* Office of Sponsored Programs (OSP) Grant Writing Workshop (presenter)	1999
* Accreditation process - Areas of Emphasis discussion	1999
- Faculty and Staff panellist	
- Knight Roundtable Committee member	
* Industrial Liaison Programme Committee (member)	1998 - 1999
* Provost's Blue Ribbon Committee on Technology Investment (member)	1998 - 1999
* Inaugural Symposium for statewide collaboration in Climatology/Meteorology in Vermont. (December 2) - Organizer & Convenor. <a href="http://www.uvm.edu/~ldupigny/sc/clim-met97">http://www.uvm.edu/~ldupigny/sc/clim-met97</a>	1997
* Inaugural Symposium for statewide collaboration in Geographic Information Systems in Vermont. (December 9) - Organizer & Convenor. <a href="http://www.uvm.edu/~ldupigny/vtgis-conf97">http://www.uvm.edu/~ldupigny/vtgis-conf97</a>	1997
Southern Illinois University at Edwardsville	1996 - 1997
* Coordinator of senior undergraduate thesis programme.	
* Ad-hoc committee member for the evaluation of undergraduate and graduate curricula.	
McGill University	1989 - 1991
* Faculty Council - Department of Geography student representative.	
* Centre for Climate and Global Change Research (C <sup>2</sup> GCR) - Department of Geography student representative.	
* Graduate Affairs Committee - Department of Geography.	
University of Toronto	1988
* Orientation Planning Committee.	

### **Discipline of Geography**

Association of American Geographers (AAG)	
* National Councillor (elected position)	2013 - 2016
* Director - Climate Specialty Group	2006 - 2008
* Founder - AAG Climate Mentoring & Climate Literacy initiatives	2007- present
* Climate Specialty Group Student Paper Competition Judge	2001, 2005
Manuscript reviewer	
* <i>Geoforum</i>	2013
* <i>Geography Compass</i>	2010
* <i>Northeastern Geographer</i> (2)	2009, 2011
* <i>Climatic Change</i>	2008
* <i>Natural Hazards</i>	2008
* <i>Earth Science Reviews</i>	2007
* <i>Infrared Physics &amp; Technology</i>	2007
* <i>Scientia Agricola</i>	2007
* <i>International Journal of Climatology</i> (3)	2005, 2007, 2012
* <i>Irish Geography</i>	2007

* <i>Journal of Environmental Management</i> (1)	2004
* <i>NESTVAL '02 Proceedings</i> (1)	2003
* <i>Annals of the Association of American Geographers</i> (1)	2002
- * <i>Geophysical Research Letters</i> (2)	2002, 2004
* <i>Journal of Climate</i> (1)	2001
* <i>Water International</i> (3)	2000 - 2002
* <i>Journal of the American Water Resources Association</i> (2)	1999, 2002-3
* <i>Physical Geography</i> (2)	1999, 2010
* <i>The Professional Geographer</i> (1)	1998
Vermont State Geography Bee	
* Moderator for the Final and Championship rounds	2001
* Judge	1999, 2007
Vermont Geographic Alliance- Summer Geography Institute	
* "Vermont's natural hazards: climate meets the landscape" - UVM	2007
* Lecture on Climate and hazards in Vermont - Castleton State College	1999

### Professional

American Association of State Climatologists	
* Secretary	2010 - 2011
* Nominations Committee member	2012- present
* Curriculum Committee member	2010- present
* organized 33 <sup>rd</sup> Annual Meeting of State Climatologists, Burlington VT	2008
* Vermont State Climatologist	1997- present
American Water Resources Association (Publications Committee member)	1997 - 1999
Grant proposal reviewer	
* Mississippi Sea Grant program	2011
* U.S. Civilian Research & Development Foundation	2004
* American Association for the Advancement of Science (WISC) (10)	2003
* Lake Champlain Research Consortium (2)	2000, 2001
* Connecticut Institute of Water Resources	1999
* National Science Foundation (NSF) <i>ad hoc</i> reviewer	
- CAREER (2)	1997
- Divisions of Earth Sciences (1)	1998
- Division of Geography and Spatial (Regional) Science (3)	1998, 2004, 2012, 2013
- Division of Ecosystem Studies (1)	1998
- Division of Hydrology (1)	2008
- Division of Atmospheric and Geospace Science (1)	2010
National Science Foundation (NSF) pre-proposal panel review (11)	2004
National Science Foundation (NSF) Senior advisory panel (17,12,16,15)	2004 - 2006
National Science Foundation (NSF) merit review panel (5)	2008
National Science Foundation (NSF) merit review panel (2 programs)	2009
National Science Foundation (NSF) merit review panel (2 new programs)	2010
National Science Foundation (NSF) merit review panel (3 programs)	2011



*(numbers in parentheses indicate the number of proposals read per panel, unless otherwise noted)*

External reviewer - Tenure & Promotion to Associate Professor (3)	2005, 2012, 2013
Editorial Board member	
* <i>Geography Compass</i> (Climatology)	2011- present
* <i>Physical Geography</i> (Climatology)	2007 - 2010
* <i>Northeastern Geographer</i>	2007- present
Academic Program review	
* Vermont State Colleges - Program review of the Lyndon State College Meteorology Program	2013
National climate appointments/nominations	
* NOAA Science Advisory Board Climate Working Group	2013 - 2016
* NOAA Science Advisory Board R&D Portfolio Review Task Force	2012 - 2013
* American Meteorological Society	2012 - 2015
- Committee on Applied Climatology	
- national liaison to the NOAA Regional Climate Centers and the American Association of State Climatologists	
* Assessment of Climate Change in the Northeast United States: A Technical Report Prepared for the U.S. National Climate Assessment National Climate Assessment - Northeast US - Lead author on two chapters	2011 - 2012
Technical reviewer	
* US Global Change Research Program - National Assessment Synthesis Team (NAST) for the Potential Consequences of Climate Variability and Change for the United States	1999
- Reviewer of the summary report on the Northeast and US Affiliated Islands	
* Intergovernmental Panel on Climate Change (IPCC)	1995 - 1997
- International reviewer of the Working Papers on climate change impacts	
Steering Committee / Programme Committee	
* ESPERE (Environmental Science Published for Everybody Round the Earth)	2009-present
- Steering Committee Member (international election)	
* COSPAR 2008 (Montreal, PQ)	2007 - 2008
* Association of American Geographers (Local Planning Committee)	2007
* American Society for Photogrammetry and Remote Sensing (ASPRS) Central New York Region (Nominations Committee member)	2004
* Chittenden County Regional Planning Commission (Vermont)	2000
- Regional Plan - Natural Resources Task Force member	
* FGDC (Federal Geographic Data Committee) Working Group on Spatial Climate Subcommittee member	2000 - 2004

- \* GCIP Mississippi River Climate Conference - St. Louis, Missouri, June 8-12,1998  
- Programme Committee
- \* Lake Champlain Watershed Analysis Technical Workgroup 2012- present  
- assist in development of EPA-led Phosphorus TMDL
- \* National Drought Policy Commission 1999  
- Monitoring and Prediction Program
- \* NCDC- (National Climatic Data Center) sponsored Review of the 1998 - 1999  
State Climatologist Programme - Committee member
- \*NCGIA Core Curriculum for Technical Programs 1998  
-“Wrap-up committee” member - Santa Barbara, California, July 30- August 2.
- \* New England Mesonet Steering Committee 1998 - 2000
- \* Preparing for an Academic Career in the Geosciences: A Workshop for 2005  
Graduate Students and Post-doctoral Fellows - Workshop facilitator on Service-Learning
- \* Quebec Labrador Foundation/Atlantic Center for the Environment 1999  
Steering Committee - The Impacts of Climate Change on Vermont’s Economy
- \* Vermont Emergency Management and Homeland Security  
- Drought Task Force member 1999 - 2002  
- Scientific advisory subcommittee - Chair 2002  
- State Hazard Mitigation Steering Committee member 2012 - 2013
- \* Vermont State Emergency Board 2002
- \* Vermont Weather and Climate Research Working Group 2010- present  
Founder & listerv coordinator
- \* Western Education/Extension and Research (WERA 1012) 2009- present  
Volunteer Education committee member
- Board of Directors/Board of Trustees member
  - \*Vermont Academy of the Arts and Sciences (Board of Trustees) 2007- present
  - \* Vermont Center for Geographic Information (Board of Directors) 2008 - 2010  
2010 - 2011

## PROFESSIONAL AFFILIATIONS

- \* American Association of State Climatologists
- \* Association of American Geographers
- \* American Geophysical Union
- \* American Meteorological Society
- \* American Society for Photogrammetry and Remote Sensing
- \* Congressional Natural Hazards Caucus - Natural Hazard Caucus Working Group
- \* National Association of State Universities and Land Grant Colleges

\* Universities Council on Water Resources

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## **TECHNICAL EXPERTISE**

Geographical Information Systems (GRASS, IDRISI, ArcGIS) under UNIX and Windows  
Image Processing (ENVI, ER Mapper)  
Design and presentation software (Adobe Photoshop, PowerPoint)  
Fortran 77 Programming language  
Spreadsheet and statistical analysis software (LOTUS 1-2-3, Excel, Quattro Pro, SYSTAT, MINITAB, SPSS)

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## **COMMUNITY ACTIVITIES**

Committee on Temporary Shelter (C.O.T.S.) fundraising walk participant.  
Volunteer - McGill University Cancer Research Auction.  
Volunteer - Québec Special Olympics for the physically challenged.  
Volunteer reader for blind students at McGill University.  
Volunteer leader of the St. Barnabas Youth Corps, Toronto.

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## **LANGUAGES**

English, French, Portuguese

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