

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

Vermont State Climatologist  
President-elect - American Association of State Climatologists

Department of Geography  
University of Vermont  
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(Secondary appointment - Department of Geology; College of Education & Social Services;  
Rubenstein School of Environment & Natural Resources)  
(Faculty affiliate - Environmental Sciences; Canadian Studies; Center for Research on Vermont)  
Adjunct Professor - School of Natural Resources, University of Nebraska - Lincoln

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## ACADEMIC EXPERIENCE

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| University of Vermont                        | Professor, 2014 - present<br>Chair, 2015 - 2018<br>Associate Professor, 2003 - 2014<br>Assistant Professor, 1997 - 2003 |
| Southern Illinois University at Edwardsville | Assistant Professor, 1996 - 1997  |
| McGill University                            | Lecturer, 1994 1995   |

## EDUCATION

Doctor of Philosophy, McGill University. Climatology & Geographic Information Systems 1996 (Oct.)

Dissertation: Techniques for rainfall estimation and surface characterization  
over northern Brazil.

Master of Science, 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.

Bachelor of Science, University of Toronto (High Distinction). 1989  
Physical Geography and Development Studies.

Thesis: An Analysis of Textural Variability in a Forest Soil.

G.C.E. (Cambridge) Advanced Level, 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 |
| * 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

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| * Fellow - American Meteorological Society  | 2020        |
| * Association of Women Geoscientists Professional Excellence Award in the Academia/Research category. For “distinguished contributions in their professions throughout their careers”   | 2018        |
| * Keynote speaker - Metcalf Institute for Marine & Environmental Reporting, Narragansett RI   | 2018        |
| * International Joint Commission, Lake Champlain-Richelieu River Study, US Chair, Public Advisory Board   | 2016 - 2017 |
| * Regional Chapter Lead of the Northeast Chapter for the 4th National Climate Assessment (NCA4) - appointed position.   | 2016 - 2018 |
| * Featured in “Voices of Geography” of the <i>Directions Magazine</i> . In recognition of ‘positive, meaningful contributions to geography.’<br>< <a href="http://www.directionsmag.com/entry/geoinspirations-lesley-ann-dupigny/476985">http://www.directionsmag.com/entry/geoinspirations-lesley-ann-dupigny/476985</a> > | 2016        |
| * Plenary Speaker - Vermont Preparedness Conference, Lake Morey VT  | 2016        |
| * Keynote speaker - Cultivating Climate Resilience summit, Montpelier VT  | 2016        |
| * Fellow - Vermont Academy of Science and Engineering   | 2015        |
| * Keynote speaker - Champlain Basin Education Initiative, Burlington VT   | 2015        |
| Goddard College   |             |
| * Commencement Speaker - Graduate Institute (February)  | 2015        |
| * Scholar in residence. Climate/Climate Change - Worked with students completing Masters degrees in Health Arts and Sciences; Social Innovation and Sustainability; and Individualized  |             |

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| Studies  | 2014 |
| * Keynote speaker - Vermont EPSCoR Annual Meeting, Burlington, VT  | 2014 |
| * Plenary speaker - Climate Change Adaptation: Stormwater Management and Aquatic Ecosystem Impacts Workshop, organized in conjunction with the New England Association of Environmental Biologists (NEAEB), Burlington, VT | 2014 |
| * 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 |
| University of Georgia  |      |
| * Franklin Visiting Scholar (Inclusion and Diversity Leadership)   | 2010 |
| American Association of University Women (AAUW)  |      |
| * Luncheon speaker, New England Regional Convention, Wellesley College, MA   | 2004 |
| * Educational Foundation Fellow  | 2003 |
| University of Vermont  |      |
| * Sustainability Faculty Fellow  | 2016 |
| * College of Arts and Sciences 2014-2015 Full Professor Lecture Series   | 2015 |
| * 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 |

## SCHOLARSHIP

### PUBLICATIONS

#### BOOK

Dupigny-Giroux, L-A.. and Mock, C.J. (co-editors) (2009) Historical climate variability and impacts in North America, Springer Publishers.

#### FOURTH NATIONAL CLIMATE ASSESSMENT

Dupigny-Giroux, L.A., E.L. Mearns, M.D. Lemcke-Stampone, G.A. Hodgkins, E.E. Lentz, K.E. Mills, E.D. Lane, R. Miller, D.Y. Hollinger, W.D. Solecki, G.A. Wellenius, P.E. Sheffield, A.B. MacDonald, and C. Caldwell, 2018: Northeast. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA. doi: 10.7930/NCA4.2018.CH18  
 - peer reviewed by scientists at 13 US federal agencies & the National Academies of Science,

*Engineering and Medicine.*

- invited briefings given to the New England Federal Partners (13 federal agencies); EPA Region 1; National Weather Service Climate Focal Point members; International Joint Commission; Earth Science Information Partners (ESIP) Federation.

PEER-REVIEWED PUBLICATIONS (\* denotes student co-authors)

- Oswald, E.M. Pontius, J., Schaberg, P., Rayback, S.A., Wilmot, S.H. and Dupigny-Giroux, L.-A., (2018) "The complex relationship between climate and sugar maple health: climate change implications for a key northern hardwood species, *Forest Ecology and Management*, doi.org/10.1016/j.foreco.2018.04.014.
- Dupigny-Giroux, Lesley-Ann; Cole\*, Amanda. (2018) "Climate Literacy and Education." In Oxford Bibliographies in Geography. Ed. Barney Warf. New York: Oxford University Press, DOI: 10.1093/obo/9780199874002-0191.
- Dupigny-Giroux, L-A., Goff, J., Kilbride\*, J., Marshall, J.D., Leidinger\*, S., Fooks\*, P. and Moir, M. (2017) "Improving situational awareness for flash flood forecasting in a small urban catchment by integrating meteorological analysis into a geospatial framework," *Remote Sensing Applications: Society and Environment*, online 12 September, doi.org/10.1016/j.rsase.2017.09.003.  
[part of the special issue on "Using remote sensing capabilities to address stakeholder needs in data-sparse contexts" that I guest edited]
- Dupigny-Giroux, L.-A. (2017) "Climate literacy", in The International Encyclopaedia of Geography: People, the Earth, Environment, and Technology, Wiley-Blackwell and the Association of American Geographers, pp. 687-691. Invited submission DOI: 10.1002/9781118786352. *The Encyclopaedia was awarded the prestigious CHOICE Book Award for Outstanding Academic Title in 2017.*
- Runkle, J., K. Kunkel, S. Champion, and L-A. Dupigny-Giroux (2017) Vermont State Summary. NOAA Technical Report NESDIS 149-VT, 2 pp. <https://statesummaries.ncics.org/vt>  
- peer-reviewed publication prepared in support of the Fourth National Climate Assessment.
- Oswald, E.M. and Dupigny-Giroux, L.-A. (2015) "On the availability of high-resolution data for near-surface climate analysis in the continental U.S.," *Geography Compass*, 9(12): 617-636, DOI: 10.1111/gec3.12249.
- Oswald, E. M., Dupigny-Giroux, L.-A., Leibensperger, E., Poirot, R. and Merrell, J. (2015) "Climate controls on air quality in the Northeastern U.S.: An examination of ozone statistics during 1993-2012," *Atmospheric Environment*, doi:10.1016/j.atmosenv.2015.04.019. Available at <<http://www.sciencedirect.com/science/article/pii/S1352231015300200>>
- Timofeyeva, M., Horsfall, F. Holligshead, A., Meyers, J. and Dupigny-Giroux, L-A., (2015) "NOAA Local Climate Analysis Tool (LCAT): Data, Methods, and Usability," *Bulletin of the American*

*Meteorological Society*, doi: 10.1175/BAMS-D-13-00187.1. Available at <<http://journals.ametsoc.org/doi/abs/10.1175/BAMS-D-13-00187.1>> [*The LCAT Tool was awarded the NOAA Department of Commerce Silver Medal*]

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. Available at <<http://nagt-jge.org/doi/pdf/10.5408/11-238.1>>

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

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.  
<<http://ascelibrary.org/doi/abs/10.1061/%28ASCE%29NH.1527-6996.0000017?journalCode=nhrefo>>

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.

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]. DOI:10.2747/0272-3646.29.6.483

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. <<http://journals.ametsoc.org/doi/pdf/10.1175/BAMS-88-7-1015>>

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. <<http://www.sciencedirect.com/science/article/pii/S0034425706004135>>

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.

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 . <<http://www.tandfonline.com/doi/abs/10.1080/0143116021015404047?journalCode=tres20>>

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. <[https://vermonthistory.org/journal/70/vt701\\_204.pdf](https://vermonthistory.org/journal/70/vt701_204.pdf)>

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.

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.

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. <<http://onlinelibrary.wiley.com/doi/10.1002/j.1477-8696.2000.tb04012.x/pdf>>

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. <<http://www.tandfonline.com/doi/abs/10.1080/02723646.1999.10642685?journalCode=tphy20>>

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.

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

- 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.

## REPORTS & OTHER ACADEMIC WORK

- Dupigny-Giroux, (2019) "Around the world with weather wisdom" in A tribute to Professor Wolfgang Mieder, Mentor, Colleague, Friend. Living by the "Golden Rule": Mentor - Scholar - World Citizen. A Festschrift for Wolfgang Mieder's 75th birthday. Edited by Andreas Nolte & Dennis F. Mahoney. Peter Lang GmbH, Internationaler Verlag der Wissenschaften, Berlin. pp 21-22
- Program Assessment and Guidance for OK NSF EPSCoR Track I, 2013-2018. AAAS External Review Panel Report, Spring 2016. Dupigny-Giroux, L.-A., Kiker, G., Qi, J., Olson, A. and Pelly, S. (2016).
- 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.
- Horton, R., Solecki, W. and Rosenzweig (2013). Lead author on the chapter "Clarifying the communication of climate and climate change," in the *Climate Change in the Northeast: A Sourcebook, for the NorthEast Region* chapter of the 2014 National Climate Assessment report, US Global Change Research Program, Office of Science and Technology Policy. Also contributing lead author on "Case Study on the Impacts of Hurricane Irene." [available online at <https://www.globalchange.gov/sites/globalchange/files/NCAJan11-2013-publicreviewdraft-chap16-northeast.pdf>]

- 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.
- Dupigny-Giroux, 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.
- Dupigny-Giroux, L.-A. (2003) Revision of the CLIM-60 - Climate of Vermont publication of the National Climatic Data Center.
- 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 & TEXTBOOK REVIEWS

- Textbook proposal review of the proposed "Global Climatology: Climate and the Biogeophysical World," by S. Nicholson, Cambridge University Press, U.K.. 2018
- Dupigny-Giroux, L.-A. (2014) Taken by Storm 1938: A Societal and Meteorological History of the Great New England Hurricane, by Lourdes B. Avilés, *Vermont History*, Vol. 82, No.2, pp:164-167.
- 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.
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## FUNDING

### EXTRAMURAL FUNDING

- \* NSF Research Traineeship (NRT) Program 2017-2022  
 “NRT: Quantitative & Evolutionary STEM Training (QUEST): An Integrative Training Program for Versatile STEM Professionals to Solve Environmental and Global Health Problems.” M. Pespeni (PI), L. Stevens (Co-PI), Ogbunugafor, B. (Co-PI), Kangala, V. (Co-PI), Dupigny-Giroux, L.-A. (*awarded as Co-PI; then became Senior Personnel*)  
 \$2,999,999
- \* 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 (NOAA PACE postdoc) 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. 6 August 2012-10 April 2013  
 - 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 2010-2015  
 "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), L. Morrissey (RSENr), B. Berryman & J. Shafer (Lyndon State College)]  
 \$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"  
 \$5,500
- \* National Climatic Data Center 2005  
 "Enhancing the Vermont SCO's historical and data access mission"  
 \$1,977
- \* National Climatic Data Center

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| “Task order for continuing CDMP FORTS database build addition for State Climatologists’ mini-projects”   | 2004     |
| “Expanding the pre-1948 climate station histories for Vermont”   | 2003     |
| * AAUW Educational Foundation - American Fellowship - Shirley Farr Fellowship Summer Publication Grant “A synoptic climatology of flooding in New England”   | 2003     |
|  | \$6,700  |
|  | \$2,500  |
|  | \$6,000  |
| * AAAS Women’s International Science Collaboration (WISC) Program (NSF funded) “Quantifying the role of Maddox and other frontal events in severe flooding in northeastern North America (with special reference to Québec and Vermont)” | 2002     |
|  | \$4,000  |
| * NSF EPSCoR (Vermont) Supplemental start-up funding   | 2001     |
|  | \$9,688  |
| * EPA EPSCoR Stimulus Grants Program (Vermont) “Developing a baseline for monitoring drought stress on forested ecosystems in Vermont”   | 2000     |
|  | \$5,000  |
| * Vermont Department of Forests, Parks and Recreation “On-going assessment of ice-affected foliage via remotely- sensed imagery”   | 1999     |
|  | \$6, 000 |
| * 1998 State Climatologist Exchange Program “Updating the climate resource base of Vermont”  | 1998     |
|  | \$2,500  |

#### INTRAMURAL FUNDING

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| * Gund Institute for Environment, Catalyst Award “Vermont Climate Assessment 2020,” G. Galford (PI), J. Faulkner, Dupigny-Giroux, L, Holterman.  | 2020      |
|  | \$50,000  |
| * University of Vermont, Fostering Interdisciplinary Scholarship, Arts & Research (FISAR) 2015 “A Multi-scale, Multi-platform Environmental Monitoring Framework for Remote Sensing,” Dupigny-Giroux (PI), D. Hitt (Co-PI), J. Hanning (external partner)    | 2015      |
|  | \$35,668  |
| * University of Vermont, Engaged Practices Innovation (EPI) Grant “Mentoring Matters: Faculty Development to Enhance and Improve Undergraduate STEM Research Mentoring at UVM,” J. Stockwell (PI), Dupigny-Giroux (Co-PI)                                    | 2015      |
|  | \$4,000   |
| * Vermont NASA EPSCoR - Faculty Award “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”   | 2012      |
|  | \$29, 156 |
| * University of Vermont, Irene Undergraduate - Faculty Research Awards “Conducting a synoptic meteorological and geospatial analysis of the extreme precipitation during Tropical Storm Irene: A contribution to flood mitigation planning”, Faculty advisor | 2012      |

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| for four undergraduates   | \$2911    |      |
| * University of Vermont, Service-Learning course planning and implementation grant<br>“Creating a field experience for remote sensing undergraduates to focus on<br>the dynamics of wetland health and moisture characteristics”            | \$700     | 2009 |
| * University of Vermont, Spring 2009 President’s Distinguished Lecture series<br>Kerry A. Emanuel, MIT  | \$5,000   | 2009 |
| * University of Vermont, Service-Learning course planning and implementation grant<br>“Retooling a first-year Service-Learning course on remote sensing to focus<br>on the stream morphology policy issues”                                 | \$570     | 2008 |
| * University of Vermont, Instructional Incentive Grant<br>“Expanding the Geography department’s curriculum with a new Service-Learning TAP<br>course on remote sensing”   | \$3130.66 | 2006 |
| * University of Vermont, International Instructional Incentive Grant<br>“Enhancing remote sensing pedagogy by creating a new linkage between the<br>University of Vermont and the Joint Research Centre (JRC) of the European<br>Commission | \$940     | 2006 |
| * University of Vermont, Service-Learning course planning and implementation grant<br>Climatology and natural hazards   | \$943     | 2005 |
| * University of Vermont, Fall 2004 President’s Distinguished Lecture series<br>(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<br>“Enhancing the Geography Department’s intermediate remote sensing course via<br>fieldwork and an international visit to the Canadian Centre for Remote Sensing”                   | \$3,000   | 2003 |
| * University of Vermont Centre for Teaching and Learning<br>Teaching Support Award (advanced GIS course)  | \$450     | 2003 |
| * University of Vermont Centre for Teaching and Learning<br>Teaching Support Award (intermediate remote sensing course)   | \$200     | 2001 |
| * University of Vermont, Dean’s Fund for Faculty Development<br>“Enhancing GIS teaching potential by attending an ArcView workshop”<br>(joint proposal with Professors Carmody and Wemple)  | \$4,068   | 2000 |
| * University of Vermont, Instructional Incentive Grant<br>“Enhancing Teaching Effectiveness via a Geosciences Faculty Workshop”   | \$644     | 2000 |
| * University of Vermont, College of Arts & Sciences Dean’s Discretionary Fund   |           | 1999 |

|   |         |      |
|---|---------|------|
| “Creating an alliance with the University of Nebraska-Lincoln”  | \$350   |      |
| * University of Vermont, Instructional Incentive Grant  |         | 1998 |
| “Climatology and Natural Hazards” - new course  | \$2,500 |      |
| * University of Vermont, University Committee on Research and Scholarship   |         | 1998 |
| “Severe Precipitation Events in Vermont During 1997 and 1998: A Quantification using Remotely-Sensed Imagery”             | \$5,000 |      |
| * University of Vermont, Dean’s Fund for Faculty Development  |         | 1997 |
| “Inaugural Symposium for state wide collaboration in Climatology/Meteorology & Geographic Information Systems in Vermont” | \$2,000 |      |

## PRESENTATIONS

### PRESENTATIONS AT SCHOLARLY CONFERENCES

2020

Crossett\*, C., Dupigny-Giroux, L.-A., Bombliès, A., Rizzo, D.M., Betts, A. “Utilizing a Self-Organizing Map to Identify Synoptic Patterns in Heavy Precipitation Events in the Northeastern United States,” American Meteorological Society 100<sup>th</sup> Annual Meeting, Boston Massachusetts, January 12-16.

Sarro\*, G.M., Crossett\*, C., Dupigny-Giroux, L.-A., “Meteorological Predictors of Droughts in Vermont, New Hampshire, and Eastern New York, American Meteorological Society 100<sup>th</sup> Annual Meeting, Boston Massachusetts, January 12-16. ***Outstanding Student Conference Paper Award: Undergraduate.***

2019

Slonosky, V., Allan, R., Mock, C., Westcott, N., Brohan., P., Dupigny-Giroux, L.-A., Benoy, M., Slivinski, L., Luterbacher, J., Siegmund, P., Ashcroft, L., Vaquero, J., Brönnimann, S., Brugnara, Y., Compo., G., Yin, X., “Global Historical Climate Data Rescue,” ***invited***, 27<sup>th</sup> International Union of Geodesy and Geophysics Union General Assembly, Montréal Québec, July 8-18.

Dupigny-Giroux, L.-A. Women in Climate Services session, ***invited panelist***, American Association of State Climatologists meeting, Santa Rosa California, June 25-27.

Kostrubiak MR, Vatovec CM, Dupigny-Giroux LA, Rizzo, DM, Paganelli, WC, Tsai MH, “Water Pollution and Environmental Concerns in Anesthesiology,” International Anaesthesia Research Society Annual Meeting, Montréal Québec, May 16-20.

Dupigny-Giroux, L.-A. Soils and Climate session, ***invited panelist***, Cows, Land and Labor conference, Dartmouth College, NH, April 26.

Dupigny-Giroux, L.-A., “Fourth National Climate Assessment Overview,” in The Fourth National Climate Assessment and IPCC Special Report on the impacts of global warming: A panel discussion of the science-public policy dimensions of climate change assessments, ***session co-***

*organizer and panelist*, presented at the American Association of Geographers meeting, Washington, D.C., April 3-6.

Dupigny-Giroux, L.-A., Underrepresented groups in Geography Climatology session, *invited panelist*, presented at the American Association of Geographers meeting, Washington, D.C., April 3-6.

Dupigny-Giroux, L.-A., Sexual Harassment and Bullying Policies in Academia session, *invited panelist*, presented at the American Association of Geographers meeting, Washington, D.C., April 3-6.

Dupigny-Giroux & NCA4 Regional Author Teams, “Highlighting the outcomes of a risk-based assessment of the impacts of a changing climate across the regions of the United States,” panelist, presented at the American Meteorological Society meeting, Phoenix AZ, December 6-10.

2018

Dupigny-Giroux, L.-A., Mecray, E.L. Stampone, M.D., Hodgkins, G.A., Lentz, E.E., Mills, K., Lane, E., Miller, R.L., Hollinger, D.Y., Solecki, W.D., Wellenius, G.A., Sheffield, P.E., MacDonald, A.B., and Caldwell, C.M. “A risk-based assessment of the impacts of a changing climate in the U.S. Northeast,” presented at the American Geophysical Union, Washington D.C., December 10-15.

National Climate Assessment 4.0: Panelist, American Association of State Climatologists Annual Meeting, Nebraska City, Nebraska, June 19-22.

2016

Goff, J., Dupigny-Giroux, L.-A., Kilbride\*, J., Leidinger\*, S., Fooks\*, P. and Marshall, J. “Improving Situational Awareness of Flash Flooding in a Small Urban Catchment by Integrating Meteorological Analysis into a Geospatial Framework,” presented at the 14<sup>th</sup> Annual Climate Prediction Applications Science Workshop, Burlington, Vermont, March 22-24.

2015

Oswald, E.M. and Dupigny-Giroux, L.-A. “A multi-agency investigation of Heat and human Health relationships in the state of Vermont: Towards actionable science,” presented at the American Geophysical Union, San Francisco, California, December 14-18.

Dupigny-Giroux, L.-A. “Twenty-five year retrospective on the influence of climate on Vermont’s forests: A State Climatologist’s perspective,” **Invited Plenary Speaker**, 2015 Vermont Monitoring Cooperative Conference, 25 Years of Forest Ecosystem Monitoring: Trends, Patterns and Lessons Learned, Burlington, VT, 11 December.

Pontius, J., Oswald, E., Wilmot, S., Rayback, S. and Dupigny-Giroux, L.-A. “The role of climate in sugar maple health: projections for the future,” 2015 Vermont Monitoring Cooperative Conference, 25 Years of Forest Ecosystem Monitoring: Trends, Patterns and Lessons Learned, Burlington, VT, 11 December.

Dupigny-Giroux, L.-A., Climate Literacy and Education panel, **Invited panelist**, presented at the Association of American Geographers meeting, Chicago, Illinois, April 21-25.

2014

“Developing a Climate and Health Profile in Vermont,” Hales, H., Fogl, M., Grass, D., Oswald, E. And

Dupigny-Giroux, L.-A., American Public Health Association Meeting, New Orleans, LA, 19 November.

“Exploring severe weather hazards, climate and science communication: Through the lens of the Vermont State Climatologist,” **invited speaker & participant**, Developing Sustainable Networks of Women Scientists for Addressing Issues of Disasters Related to Weather and Changing Climate Montego Bay, Jamaica, 20-22 October.

“Challenges and lessons learned in implementing climate and geospatial understanding in the K-16 curriculum and among diverse students,” **Keynote luncheon speaker**, Vermont EPSCoR Annual Meeting, Burlington VT, 5 August.

“Challenges and lessons learned in implementing climate and geospatial understanding in the K-16 curriculum and among diverse students,” **invited speaker & participant**, Diversity in the Computational Geosciences Workshop, NCAR, Boulder, Colorado, 23-25 June.

“Air Quality Management: perspectives from Northeast States: Vermont,” Poirot, R., Oswald, E. and Dupigny-Giroux, L.-A., NASA Air Quality Applied Sciences Team (AQASt) 7<sup>th</sup> Semiannual Meeting, Harvard University, 17-19 June.

“Climate and Health Profile,” Hales, H., Fogl, M., Grass, D., Oswald, E. And Dupigny-Giroux, L.-A., Climate Ready States and Cities Grantee Meeting, Atlanta, GA, 23 April.

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 Vermont, 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.

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. (Cary Mock, presenter).

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," presented at the 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*

“Highlights from the Fourth National Climate Assessment: A focus on the Northeast Chapter,” GUND Institute for Environment, University of Vermont, 31 January 2020.

Testimony to the Vermont House Committee on Energy and Technology. H688 Global Warming Solutions Act, 31 January 2020.

“The Fourth National Climate Assessment: Observations and Implications for the Northeast and Vermont,” Continuing and Distance Education Staff Seminar Series, University of Vermont, 23 January 2020.

“The Fourth National Climate Assessment: Observations and Implications for the Northeast and Vermont,” **‘kick-off speaker,’** Sustainability Faculty Fellows Program for AY2019-2020, University of Vermont, 11 December 2019.

"The Fourth National Climate Assessment: Observations and Implications for the Northeast and Vermont" Education & Enrichment for Everyone series, South Burlington, VT, 15 November 2019.

"The National Climate Assessment Report and Climate Change in Vermont," **Plenary speaker**, When Governments Cooperate: State Government Municipal Day. Montpelier, VT, 25 October 2019.

“Climate change in New England and Vermont,” Vermont Office of the Attorney General, Montpelier VT, 6 September 2019.

“Introduction to climate change,” AAAS Science Essentials for Political Reporters, Drake University, Des Moines IA, 5 August 2019.

“Influence of a changing climate on waterways in Vermont,” Federation of Vermont Lakes and Ponds, Barre VT, 22 July 2019.

“Teaching about climate change: Reflections and strategies,” **Featured speaker**, Climate Resiliency Fellowship, Shelburne Farms VT, 15 July 2019.

“Climate change in New England and Vermont,” **Keynote speaker**, Public Forum on the State of the Climate 2019: What can we expect?, Plainfield VT, 22 June 2019.

“Fourth National Climate Assessment: Dissemination and lessons learned,” Earth Science Information Partners (ESIP) “Data to Action” Webinar Series, 17 May 2019.  
<<https://www.youtube.com/watch?v=ZewBxBKfjOs>>

“Climate change in the Northeast and Vermont,” The Addison County Regional Planning Commission Annual Meeting, Ferrisburgh VT, 8 May 2019.

“Extreme Weather, Climate and Climate Change: Implications for the Insurance industry,” AMICA Directors & Senior Staff Conference, Scottsdale, Arizona, 29 April 2019.

- “Climate change in the Northeast and Vermont: An overview of the Fourth National Climate Assessment,” climate change lecture series, Robin Wake Robin Retirement Community, 26 March 2019.
- “The Fourth National Climate Assessment in the US: Lessons learned and implications for the LCRR basin,” Lake Champlain-Richelieu River Climate Risk Workshop, OURANOS, Montréal Québec, 19 March 2019.
- “Fourth National Climate Assessment Overview,” National Weather Service Climate Focal Points Webinar, 13 February 2019.
- “Extreme Weather, Climate and Climate Change: Implications for the Insurance industry,” AMICA Officer Breakfast Leadership Series, AMICA Corporate Headquarters, Lincoln Rhode Island, 16 November 2018.
- “Extreme Weather and Climate Change: What’s the Connection,” Metcalf Institute for Marine & Environmental Reporting. 20<sup>th</sup> Annual Science Immersion Workshop for Journalists: Global Impacts: Climate Change and Extreme Weather. **Keynote Speaker**, University of Rhode Island, Narragansett RI, 11 June 2018.
- “Exploring climate change in Vermont, one sector at a time,” Osher Lifelong Learning Institute (OLLI) at UVM **Distinguished Lecture Series**, UVM Alumni House, 22 May 2018.
- “Climate & climate change in Vermont,” Natural Science and the Environment first year seminar, Middlebury College, 5 December 2016.
- “Making the case for an all-hazards approach: past, present, future,” Civil & Environmental Engineering Graduate Students seminar – UVM - 2 December 2016.
- “Making the case for an all-hazards approach: past, present, future,” **Plenary Speaker**, 9th annual Vermont Emergency Preparedness Conference, Lake Morey, VT, 4 November 2016.
- “Climate change, Water quality and Lake Champlain,” Lewis Creek Association/LaPlatte Watershed Partnership/South Chittenden Riverwatch, 2016 Annual Gathering at Charlotte Central School about “Climate Change, Water Quality and Lake Champlain,” 23 October 2016.
- “Floods, droughts & other wild weather: Impacts on Vermont and Vermonters, Osher Lifelong Learning Institute (OLLI) at the University of Vermont, 29 September 2016.
- “Gardening and climate change in Vermont,” Burlington Garden Club, 27 September 2016.
- “Preparing for and communicating about our changing climate,” **Keynote speaker**, VT Agency of Natural Resources/Department of Environmental Conservation “DEC” Day, Richmond, VT, 14 September 2016.
- “Climate and climate change education for improving sustainability,” invited speaker, Summer Institute on Education for Sustainability, Shelburne Farms, Shelburne VT, 27 July 2016.
- “Adapting to a changing climate in Vermont: An overview of the challenges faced by critical sectors and

State Agencies,” invited speaker, New England Climate Adaptation, Preparedness and Resilience Seminar, University of New Hampshire, Durham NH, 24 May 2016.

“Influence of a changing climate on water resources in Vermont,” Regional effort to improve communications around water resources, St. Albans, Vermont, 11 May 2016.

“Fostering climate literacy through interdisciplinary systems thinking,” Geography Department Seminar Series, University of Delaware, 29 April 2016.

“Feed-forward: Climate and climate change education in the context of improving resiliency,” **Keynote speaker**, Cultivating Climate Resilience: An education summit for empowerment & action, Montpelier High School, 9 April 2016.

“Vermont’s changing climate,” Jericho Energy Task Force, Deborah Rawson Memorial Library, Jericho, Vermont, 19 February 2016.

“Water in the climate system: How did we get to here from there?” Spring Seminar Series 2106, Freshwater in the Anthropocene, Rubenstein School of Environment and Natural Resources, University of Vermont, 2 February 2016.

“2015 Leahy Center Environmental Summit: Climate Change Resilient, Floodwater Smart,” Invited speaker, ECHO Lake Aquarium and Science Center at the Leahy Center for Lake Champlain, Burlington, VT, 21 March 2015.

“Climate Justice and Vulnerability: Learning from Katrina, Irene and Sandy,” College of Arts and Sciences 2014-2015 Full Professor Lecture Series, 27 January 2015.

“Nimble and active: Using technology to respond to real world events in a changing climate,” **Keynote speaker**, Teaching PLACE: Using technology and professional wisdom to uncover the interrelationships between natural and built systems, Champlain Basin Education Initiative, 24 January 2015.

“Communicating science: Reflections on being the VT State Climatologist,” Middlebury College, Environmental Studies Colloquium Series, 4 December 2014.

“A systems view of climate change in Vermont,” UVM Legislative Summit on Climate Change, 18 November 2014.

“Understanding past & future climate change in Burlington: Preparing for emergencies,” University of Vermont Emergency Operations Group briefing, 10 November 2014.

“Climate and Health Program,” Hales, H., Fogl, M., Grass, D., Oswald, E. And Dupigny-Giroux, L.-A., Vermont Public Health Association, University of Vermont College of Medicine, 8 October, 2014

“Communication of scientific information to general audiences,” Fall Seminar Series, School of Natural Resources, University of Nebraska-Lincoln, 18 September 2014.

“Understanding local and regional climate change: Implications for water resource management in the

Lake Champlain Basin,” Goddard College, 10 August 2014.

“Understanding Climate and Climate change: Towards environmental stewardship,” **Scholar-in-residence** workshop, Goddard College, 11 August 2014.

Reflections on Conserving Vermont: Successes, Risks, and Opportunities, Panel Discussion (with VTANR Secretary Deb Markowitz; Philip Huffman, Director of Landscape Conservation and Policy; Jim Shallow, Conservation & Policy Director, Audubon Vermont and Vermont Land Trust Director Gil Livingston, Executive Director, Vermont Land Trust), Annual Gentry Lectureship and the Inquire Program, Wake Robin Retirement Community, 29 May 2014.

"Gardening in a changing climate," UVM Extension Master Gardner Program, Burlington, 26 April 2014

"Gardening, agriculture, forests and climate change in Vermont," Wake Robin Retirement Community, 23 April 2014.

"Meeting UVM's Land Grant Mission: A Retrospective on the Vermont State Climate Office," GUND Institute Tea, UVM, 28 March 2014.

“Understanding local and regional climate change: Implications for water resource management in the Lake Champlain Basin,” **Plenary Speaker**, Climate Change Adaptation in the Lake Champlain Basin: Stormwater Management and Aquatic Ecosystem Impacts, organized in conjunction with the New England Association of Environmental Biologists (NEAEB) Annual meeting, Burlington VT, 25-26 March, 2014.

“Communication of scientific information to general audiences,” Plant and Soils Science Seminar Series, University of Vermont, 24 January 2014.

“Climate Change Adaptation Program,” Hales, H., Fogl, M., Grass, D., Oswald, E. And Dupigny-Giroux, L.-A., Vermont Farm Health Task Force, Montpelier, VT, 9 January 2014.

“Multi-angle imaging: From wetlands to climate change,” Fall Seminar Series, Rubenstein School of Environment and Natural Resources, University of Vermont, 21 November 2013.

“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**

2018 Dissemination of the Fourth National Climate Assessment at the national (NBC Universal City (CA); Virginia News Connection), regional (New Hampshire Public Radio; WAMC Northeast Public Radio; Adirondack Explorer) and state (WCAX (CBS affiliate); WPTZ (NBC affiliate); Vermont Public Radio; VT Digger) levels

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, Associated Press, Montpelier Bridge, Essex Reporter, VT Digger (*Vermont*)

- Boston Globe, Reuters-Boston, Plattsburgh Radio, New Hampshire Public Radio, WAMC Northeast Public Radio, Adirondack Explorer (*regional*)

- Washington Post, Wall Street Journal, NBC Nightly News with Brian Williams, NBC Universal City (California), New York Times, Los Angeles Times, CNN Radio Atlanta, Associated Press, USA Today, Virginia News Connection (*national*)

- The Breakfast Club, Hot 102 FM, Kingston Jamaica

## 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 -   | <u>University of Vermont</u>                        | Professor                    |
| <ul style="list-style-type: none"> <li>▶ Weather, Climate and Landscapes (GEOG 040)</li> <li>▶ Geotechniques (GEOG 081)</li> <li>▶ Satellites and airplanes: examining the earth (GEOG 085)</li> <li>▶ Climatology (GEOG 143)</li> <li>▶ Intermediate GIS (GEOG 184)</li> <li>▶ Remote Sensing (GEOG 185)</li> <li>▶ Climatology and Natural Hazards (GEOG 246)</li> <li>▶ Satellite Climatology and land-surface processes (GEOG 281)</li> </ul> |   |                              |
| Fall 1996-Spring 1997   | <u>Southern Illinois University at Edwardsville</u> | Assistant Professor          |
| <ul style="list-style-type: none"> <li>▶ Meteorology (GEOG 211-003, 004)</li> <li>▶ Climatology (GEOG 314)</li> <li>▶ Geography of Latin America (GEOG 334)</li> </ul>  |   |                              |
| 1995 (Winter)<br>1994 (Summer)  | <u>McGill University</u>                            | Lecturer                     |
| <ul style="list-style-type: none"> <li>▶ Geographic Information Systems II (183-306B,C).</li> </ul>   |   |                              |
| 1993 (Fall)   | McGill University                                   | Teaching Assistant           |
| <ul style="list-style-type: none"> <li>▶ Geographic Information Systems II (183-306A).</li> <li>▶ Geography of the Caribbean (183-310B).</li> </ul>   |   | (Fall 1993)<br>(Winter 1990) |

**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>

**POSTDOCTORAL FELLOWS SUPERVISED**

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

**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.

C. Crossett, Department of Civil and Environmental Engineering, University of Vermont, Primary Advisor, Ph.D. 2017- present.

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.

N.C.C. Pfister, “Using Empirical Mode Decomposition to Study Periodicity and Trends in Extreme Precipitation,” Department of Mathematics, University of Vermont, Primary Advisor (with C. Danforth). M.Sc. completed 2015.

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 STUDENT THESES SUPERVISED**

S. McCall, Department of Geography & Department of Mathematics and Statistics, Primary Advisor (with C. Danforth), 2017- 2018

B. Whitney, Primary Advisor (with C. Danforth) Department of Mathematics & Statistics, Completed 2017

E. Burke, Department of Geography, University of Vermont. B.A. completed 2003

#### **THESIS/DISSERTATION COMMITTEE MEMBER**

A. Belrose, M.S. Department of Geology, University of Vermont, External Chair, 2015

H. Blatchford, M.S. Department of Geology, University of Vermont, External Chair, 2015-2016

K. Dianiska, M.S., Department of Geology, University of Vermont, External Chair. 2013-2014

J. Guilbert, Ph.D. College of Engineering and Mathematical Sciences, University of Vermont 2016.

L. Kiesel, M.S., Rubenstein School of Environment and Natural Resources, University of Vermont, 2008-2009.

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

B. Lazarus, M.S. Rubenstein School of Environment and Natural Resources, University of Vermont,

2003-2004.

C. A. Pucko, Ph.D., Plant Biology, University of Vermont, 2006-2014.

A. Thomas, Ph.D. Rubenstein School of Environment and Natural Resources, University of Vermont, 2020.

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

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

C. White, M.S. candidate, College of Engineering and Mathematical Sciences, University of Vermont, 2016-2017. M.S. incomplete.

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### **ACADEMIC/PROFESSIONAL WORKSHOPS ATTENDED**

Benefit Cost Analysis Training, FEMA/Vermont Division of Emergency Management and Homeland Security, Waterbury VT, 28 July, 2015.

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.

Strategic Persuasion: A seminar in negotiations, problem solving and conflict resolution, American Geophysical Union, December 14, 2008.

Communicating Science tools for scientists and engineers, A communications skill-building workshop, AAAS & NSF, American Geophysical Union, December 14, 2008.

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.

### **ACADEMIC AND OTHER UNIVERSITY RELATED SERVICE**

#### **University of Vermont**

##### **\* Department of Geography**

- ▶ Chair 2015 - 2018
- ▶ Acting Chair 2011 - 2012

- ▶ organizer of the international NOAA/NWS Climate Prediction Applications Science Workshop (CPASW), Burlington VT 2015 - 2016
- ▶ 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

##### **\* Canadian Studies Program**

- ▶ Interim Director 2013

##### **\* Search Committee member for tenure-track faculty hire**

- ▶ Department of Chemistry (College of Arts & Sciences) 2017- 2018
- ▶ College of Education & Social Services (Elementary Science Education) 2008-2009

##### **\* Rubenstein School of Environment and Natural Resources**

- ▶ Search Committee member (Extension Assistant/Associate Professor and Leader of the Outreach and Education for the Lake Champlain Sea Grant Program (LCSG)) 2014 - 2015
- ▶ 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  |   |
| ▶ President's Commission for Inclusive Excellence  | 2020 -  |
| ▶ Vermont Agricultural Resilience in a Changing Climate Initiative   | 2013-2015   |
| ▶ Roadmap to resiliency - Institutes for Sustainable Communities   | 2014  |
| ▶ Center for Teaching and Learning (CTL)   | 2011  |
| ▶ CUPS (Community-University Partnerships and Service-Learning)  | 2005-2009,<br>2014- 2017  |
| * College of Arts and Sciences   |   |
| ▶ Faculty Standards Committee - Member-at-large (elected)  | 2019-   |
| * Faculty Senate   |   |
| ▶ <i>ad hoc</i> Data Management Committee member   | 2017  |
| ▶ Educational Technologies Subcommittee member   | 2005 - 2006   |
| ▶ Educational and Research Technologies committee (member)   | 2006 - 2008   |
| *Women's Summit  |   |
| ▶ introduction of the Keynote Speaker (Dr. Beverly Guy-Sheftall)   | 2017 (Fall)   |
| ▶ Planning committee member, invited presenter, participant  | 2013 (Fall)   |
| * Center for Research on Vermont Program (Executive Committee member)  | 2005 - 2008<br>2008 - 2011  |
| * 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.<br>(December 2) - Organizer & Convenor. | <a href="http://www.uvm.edu/~ldupigny/sc/clim-met971997">http://www.uvm.edu/~ldupigny/sc/clim-met971997</a> |

\* Inaugural Symposium for statewide collaboration in Geographic Information Systems in Vermont. (December 9) - Organizer & Convenor. <http://www.uvm.edu/~ldupigny/vtgis-conf97>  
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

Association of American Geographers (AAG)

- \* Research Grants Committee (nominated position by the AAG Council) 2019 - 2022
- \* National Councillor (elected position) 2013 - 2016
  - Chair of the National Councillors 2015 - 2016
- \* Director - Climate Specialty Group (elected position) 2006 - 2008
- \* Founder - AAG Climate Mentoring & Climate Literacy initiatives 2007- present
- \* Climate Specialty Group Student Paper Competition Judge 2001, 2005

Manuscript reviewer

- \* *Earth Interactions* (1) 2019
- \* *Geoscience Data Journal* (1) 2019
- \* *Remote Sensing Applications: Society and Environment* (1) 2015
- \* *Geoforum* 2013
- \* *Geography Compass* (3) 2010, 2014, 2015
- \* *Northeastern Geographer* (2) 2009, 2011
- \* *Climatic Change* 2008
- \* *Natural Hazards* (2) 2008, 2019
- \* *Earth Science Reviews* 2007
- \* *Infrared Physics & Technology* 2007
- \* *Scientia Agricola* 2007
- \* *International Journal of Climatology* (5) 2005, 2007, 2012, 2015, 2019
- \* *Irish Geography* 2007
- \* *Journal of Environmental Management* (1) 2004
- \* *NESTVAL '02 Proceedings* (1) 2003
- \* *Annals of the Association of American Geographers* (1) 2002
- \* *Geophysical Research Letters* (3) 2002, 2004, 2019

|   |                      |
|---|----------------------|
| * <i>Journal of Climate</i> (1)                                       | 2001                 |
| * <i>Water International</i> (3)                                      | 2000 - 2002          |
| * <i>Journal of the American Water Resources Association</i> (3)      | 1999,2002-3,<br>2018 |
| * <i>Physical Geography</i> (3)                                       | 1999, 2010,<br>2018  |
| * <i>The Professional Geographer</i> (1)                              | 1998                 |
| Guest editor - Special Issue  |                      |
| * <i>Remote Sensing Applications: Science &amp; Society</i>           | 2016-2017            |
| * <i>Physical Geography</i>   | 2009-2010            |
| 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                 |

### Profession

|  |               |
|--|---------------|
| American Association of State Climatologists   |               |
| * President-elect  | 2019 -        |
| * Secretary (elected position)   | 2010 - 2011   |
| * Nominations Committee member   | 2012- present |
| ► Chair, Nominations Committee   | 2015-2018     |
| * 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 & panelist   |               |
| * Udall Leadership Scholarship Nominating Committee (UVM ) (7)                           | 2019          |
| * National Research Council, The National Academies - nominated (4)                      | 2015-present  |
| * Florida Sea Grant program (1)  | 2015          |
| * Council for the Humanities of the Netherlands Organization for Scientific Research (1) | 2014          |
| * 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)   |                        |
| - Division of Atmospheric and Geospace Science (1)  | 2010                   |
| - EPSCoR program (2)  | 2014, 2015             |
| 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                   |
| National Science Foundation (NSF) merit review panel (11)   | 2014                   |
| National Science Foundation (NSF) merit review panel (11)   | 2019                   |
| National Science Foundation (NSF) merit review panel (12)   | 2020                   |
| <i>(numbers in parentheses indicate the number of proposals read per panel, unless otherwise noted)</i> |                        |
| External reviewer   |                        |
| * Tenure & Promotion to Associate Professor (4)   | 2005, 2012, 2013, 2015 |
| * Promotion to Full Professor (4)   | 2016, 2019             |
| External Ph.D. dissertation examiner  |                        |
| * University of New South Wales, Canberra, Australia  | 2017                   |
| Academic Program review   |                        |
| * Vermont State Colleges - Program review of the Lyndon State College Meteorology Program               | 2013                   |
| Editorial Board member  |                        |
| * <i>Geography Compass</i> (Climatology)  | 2011- present          |
| * <i>Northeastern Geographer</i>  | 2007- present          |
| * <i>Physical Geography</i> (Climatology)   | 2007 - 2010            |
| Guest Editor  |                        |
| * <i>Remote Sensing Applications: Society &amp; Environment</i>   | 2016 - 2017            |
| * <i>Physical Geography</i>   | 2007 - 2008            |
| National climate appointments/nominations   |                        |
| * AAAS panelist for Oklahoma NSF EPSCoR RII Track 1 site visit  | 2016                   |
| * International Joint Commission - US Chair, Public Advisory Board                                      | 2016 - 2017            |
| * National Climate Assessment   |                        |
| ▸ Fourth Assessment- Regional Chapter Lead of the Northeast Chapter                                     | 2016 -2018             |
| ▸ Third Assessment  |                        |
| Assessment of Climate Change in the Northeast United States: A Technical Report                         |                        |
| Prepared for the U.S. National Climate Assessment National Climate Assessment -                         |                        |

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| Northeast US - Lead author on two chapters   | 2011 - 2012  |
| * NOAA Science Advisory Board Climate Working Group  | 2013 - 2016  |
|  | 2016 - 2020  |
| * NOAA Science Advisory Board R&D Portfolio Review Task Force  | 2012 - 2013  |
| * American Meteorological Society  | 2012 - 2015  |
| - Committee on Applied Climatology   | 2015 - 2018  |
| - national liaison to the NOAA Regional Climate Centers and the American Association of State Climatologists   |              |
| 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   |              |
| * Climate Prediction Applications Science Workshop (CPASW)   | 2015 - 2016  |
| ▸ Co-host and chief local organizer, Burlington, VT  |              |
| * ESPERE   | 2009-present |
| (Environmental Science Published for Everybody Round the Earth)  |              |
| ▸ 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- 2014   |
| ▸ 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  |

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| 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 Graduate Students and Post-doctoral Fellows - Workshop facilitator on Service-Learning | 2005              |
| * Quebec Labrador Foundation/Atlantic Center for the Environment Steering Committee - The Impacts of Climate Change on Vermont’s Economy                     | 1999              |
| * Vermont Emergency Management and Homeland Security   |                   |
| ▶ Drought Task Force member  |                   |
|  | 1999 - 2002, 2016 |
| Co-Chair   |                   |
|  | 2018              |
| ▶ Scientific advisory subcommittee - Chair   |                   |
|  | 2002              |
| ▶ State Hazard Mitigation Steering Committee member  |                   |
|  | 2012- present     |
| * Vermont State Emergency Board  | 2002              |
| * Vermont Agency of Transportation   | 2015-present      |
| Technical Advisory Group member (road system resilience)   |                   |
| * Vermont Weather and Climate Research Working Group   | 2010- present     |
| Founder & listerv coordinator  |                   |
| * Western Education/Extension and Research (WERA 1012)   | 2009- 2012        |
| Volunteer Education committee member   |                   |
| Board of Directors/Board of Trustees member  |                   |
| * Vermont Academy of the Arts and Sciences (Board of Trustees)   | 2007- 2018        |
| * Vermont Center for Geographic Information (Board of Directors)   | 2008 - 2010       |
|  | 2010 - 2011       |

## PROFESSIONAL AFFILIATIONS

- \* American Association of State Climatologists
- \* American Association of Geographers (formerly the Association of American Geographers)
- \* American Geophysical Union
- \* American Meteorological Society
- \* American Society for Photogrammetry and Remote Sensing
- \* Infrastructure and Climate Network (ICNet)
- \* National Association of State Universities and Land Grant Colleges

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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 (Excel, SPSS)

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## COMMUNITY ACTIVITIES

Board of Directors - Howard Center  
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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