

# MARY D. (LEMCKE) STAMPONE

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## Professional Experience

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### ACADEMIC POSITIONS

**2009-PRES**                      **ASSISTANT PROFESSOR & STATE CLIMATOLOGIST**  
Department of Geography  
University of New Hampshire

**2008-2009**                      **INSTRUCTOR & STATE CLIMATOLOGIST**  
Department of Geography  
University of New Hampshire

**2007-2008**                      **ASSISTANT PROFESSOR**  
Department of Geography and Earth Science  
Shippensburg University

**2000-2007**                      **INSTRUCTOR**  
Departments of Geography and Geological Sciences  
University of Delaware

**1998-2007**                      **TEACHING ASSISTANT**  
Department of Geography  
University of Delaware

### RESEARCH POSITIONS

**2002-2003**                      **RESEARCH ASSISTANT**  
Investigation of Interannual Sea Ice Thickness Variability in the  
Southern Ocean (NSF Grant # OPP-0088040)  
Supervisor: Dr. Tracy L. DeLiberty  
Department of Geography, University of Delaware

**1999**                              **STUDENT ASSISTANT**  
Ground-Water Recharge Potential Mapping (Delaware  
Geological Survey Report of Investigations No. 66).  
Supervisors: A.S. Andres & C. Scott Howard  
Delaware Geological Survey

## Education

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- 2009**      **DOCTOR OF PHILOSOPHY**, Climatology  
University of Delaware, Newark, Delaware  
Thesis: *The Sensitivity of CSIM5 Sea-Ice Simulations to Atmospheric State Variables*  
Faculty Advisors: Tracy L. DeLiberty, PhD and Brian Hanson, PhD
- 2002**      **MASTER OF SCIENCE**, Geography  
University of Delaware, Newark, Delaware  
Thesis: *The Origin and Paleoclimatic Significance of Sediment-Filled Wedges in Northern Delaware*  
Faculty Advisor: Frederick E. Nelson, PhD
- 1998**      **BACHELOR OF ARTS** with Honors, Geological Sciences  
Albion College, Albion, Michigan  
Thesis: *A Geographic Information Systems Analysis of Vertebrate Diversity with Respect to Climate and its Applications to Paleoclimatology*  
Faculty Advisor: William Bartels, PhD

## Awards & Grants

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### COMPETITIVE FELLOWSHIPS

- 2005-2006                      University Competitive Graduate Fellowship Recipient  
2003-2005                      NASA Delaware Space Grant Fellowship Recipient

### TRAVEL GRANTS

- Graduate Student Travel Award  
Department of Geography Travel Grant  
Office of Women's Studies Travel Grant

## Publications

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### REFEREED PUBLICATIONS

- Lemcke, M.D.** and Nelson, F.E. (2004). Cryogenic sediment-filled wedges, Northern Delaware, USA, *Permafrost and Periglacial Processes*, 15: 319-326.

## CONFERENCE PROCEEDINGS

DeLiberty, T. A., Geiger, C. A. and **Lemcke, M. D.** (2004), Quantifying sea ice in the Southern Ocean using ArcGIS, *Proceedings of the ESRI International User Conference, San Diego, CA, August 9-13.*

**Lemcke, M.D.** and Nelson, F.E. (2003). Periglacial Sediment-Filled Wedges, Northern Delaware, USA, *Periglacial Features of Southern New Jersey: Geological Association of New Jersey 20<sup>th</sup> Annual Meeting, Field Guide and Proceedings, 93-99.*

## Presentations

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### 2009

**Stampone, M.D.**, "Evaluation of the sub-grid-scale variability associated with in situ and remotely sensed sea-ice thickness data." March 2009, Association of American Geographers Annual Meeting, Las Vegas, NV.

**Stampone, M.D.**, "Importance of Sea Ice in Climate System Models." March 3, 2009, Presented to MT 5430 Climate Change, Center for the Environment, Plymouth State University, Plymouth, NH.

### 2008

**Lemcke, M.D.**, "Evaluating the response of a simulated sea-ice thickness distribution to atmospheric parameterization using remotely sensed observations," April 2008, Association of American Geographers Annual Meeting, Boston, MA.

### 2007

**Lemcke, M.D.**, "Evaluating the utility of remotely-sensed sea-ice thickness information for use in model validation studies," March 2007, Association of American Geographers Annual Meeting, San Francisco, CA.

### 2006

**Lemcke, M.D.**, "Evaluating sea-ice model performance using in situ and remotely-sensed information on Antarctic sea-ice thickness," December 2006, The American Geophysical Union Fall Meeting, San Francisco, CA.

**Lemcke, M.D.**, "The Extent of Periglacial Conditions within the Mid-Atlantic Region during the Last Ice Age," June 2006, 63<sup>rd</sup> Eastern Snow Conference, Newark, Delaware.

**Lemcke, M.D.**, "Validating a simulated Antarctic sea ice thickness distribution using satellite-derived sea-ice thickness observations," March 2006, Association of American Geographers Annual Meeting, Chicago, IL.

## **2005**

**Lemcke, M.D.**, "Evaluating sub-grid-scale variability in gridded sea-ice thickness observations," December 2005, The American Geophysical Union Fall Meeting, San Francisco, CA.

**Lemcke, M.D.**, "A new source of sea-ice information for climate modeling studies," April 2005, Association of American Geographers Annual Meeting, Denver, CO.

Demitroff, M. and **M.D. Lemcke**, "Late-Pleistocene Thermokarst in the Pinelands of Southern New Jersey," April 2005, Association of American Geographers Annual Meeting, Denver, CO.

## **2004 and earlier**

**Lemcke, M.D.**, T.L. DeLiberty, C.A. Geiger, M. Van Woert, A.P. Worby, and S.F. Ackley, "A seasonal and interannual investigation of the sea-ice thickness distribution in the Ross Sea," March 2004, Association of American Geographers Centennial Meeting, Philadelphia, PA.

**Lemcke, M.D.** and F.E. Nelson, "Periglacial sediment-filled wedges, northern Delaware, USA," October 2003, Geological Association of New Jersey 20<sup>th</sup> Annual Meeting, Richard Stockton College, NJ.

**Lemcke, M.D.** and F.E. Nelson, "Cold-Climate Origin of Sediment-Filled Wedges, Northern Delaware, USA," March 2003, Association of American Geographers Annual Meeting, New Orleans, LA.

## **Courses**

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### **DEPARTMENT OF GEOGRAPHY, UNIVERSITY OF NEW HAMPSHIRE**

GEOG 473: Elements of Weather (Every Spring)

GEOG 560: Geography of Natural Hazards and Disasters (Every Fall)

GEOG 570: Climatology (Every other year)

GEOG 671: Advanced Weather Analysis (Spring 2010)

**DEPARTMENT OF GEOGRAPHY AND EARTH SCIENCE, SHIPPENSBURG UNIVERSITY**

ESS 108: Conservation of Natural Resources (Spring 2008)  
ESS 111: Introduction to the Atmosphere (Spring 2008)  
GEOG 103: Geography of the United States and Canada (Fall 2007)  
GEOG 105: Physical Geography (Fall 2007)

**DEPARTMENTS OF GEOGRAPHY AND GEOLOGICAL SCIENCES, UNIVERSITY OF DELAWARE**

GEOG 152: Climate and Life  
GEOG 101: Physical Geography: Climatic Processes  
GEOL 115: Geological Hazards - Lab

**Service & Professional Affiliations**

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**INTERNAL**

**2009 - 2011**            **FACULTY SENATE REPRESENTATIVE**  
Department of Geography  
University of New Hampshire

**2008 TO PRES**        **HONORS PROGRAM LIAISON**  
Department of Geography  
University of New Hampshire

**2003 - 2004**            **GRADUATE STUDENT REPRESENTATIVE TO THE FACULTY**  
Department of Geography  
University of Delaware

**EXTERNAL**

**2009 TO PRES**        **CO-COORDINATOR**  
New Hampshire CoCoRHS Network

**MARCH 2009**         **SESSION CHAIR**  
*Cryosphere* Paper Session  
Association of American Geographers Annual Meeting  
Las Vegas, Nevada

**APRIL 2007**            **SESSION CHAIR & CO-ORGANIZER**  
*Antarctic Climate and Cryospheric Studies* Paper Session  
Association of American Geographers Annual Meeting  
San Francisco, California

**MARCH 2006**            **SESSION CHAIR - ARCTIC GLACIERS AND SEA ICE**  
Association of American Geographers Annual Meeting  
Chicago, Illinois

**COMMUNITY SERVICE**

**FALL 2008**            **NEW HAMPSHIRE FIRST LEGO LEAGUE TOURNAMENT**  
Climate Connections Season

**MARCH 2007**        **DELAWARE SCIENCE OLYMPIAD TOURNAMENT**  
Middle School Meteorology Competition  
Delaware State University, Dover, Delaware

**JULY 2006**            **GUEST SPEAKER**  
Urban Environmental Center  
Wilmington, Delaware

**MARCH 2005**        **DELAWARE SCIENCE OLYMPIAD TOURNAMENT**  
High School Remote Sensing Competition  
March 2005, Delaware State University, Dover, Delaware

**MANUSCRIPT REVIEWER**            *The Northern Geographer*  
*Journal of Quaternary Science*  
*Computers and Geoscience*

**PROPOSAL REVIEWER**            NOAA Climate Program Office

**PROFESSIONAL ORGANIZATIONS**    Association of American State Climatologists  
American Meteorological Society  
American Geophysical Union  
Association of American Geographers

**Computer Skills**

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**OPERATING SYSTEMS**            Unix, Linux, DOS, Windows, MacOS  
**SOFTWARE PACKAGES**            MS Office, ESRI ArcGIS, Adobe, SPSS, Maple, Golden  
**PROGRAMMING LANGUAGES**      Fortran, NCAR Command Language (NCL),  
Python (proficient)  
C, Make, HTML (familiar)