

**NADP Annual Meeting and Scientific Symposium
Saratoga Springs, New York
October 6 – 8, 2009**

Tuesday, October 6, 2009

Registration Desk Open All Day

Room Location

8:00 a.m. - 9:15 a.m.	Joint Subcommittee Meeting	Daily Double Rear
9:15 a.m. – 9:30 a.m.	Break	
9:30 a.m. – 12:00 noon	Subcommittee Meetings Network Operations Data Management & Analysis Ecological Response and Outreach Critical Loads (ad hoc)	Daily Double Place Show Quinella
Rear		
12:00 noon - 1:30 p.m.	Lunch - On your own	
1:30 p.m. - 3:30 p.m.	Joint Subcommittee Meeting	Daily Double
Rear		
3:30 p.m. - 3:45 p.m.	Break	
3:45 p.m. - 6:00 p.m.	Executive Committee Meeting	Daily Double
Rear		

Wednesday, October 7, 2009

Registration Desk Open All Day

Room Location

Daily Double Rear

8:30 a.m. - 9:10 a.m.	Welcome, Program Office Report, Awards and Announcements Mark Nilles: NADP Vice Chair, Symposium Chair U.S. Geological Survey David Gay: NADP Coordinator Eric Prestbo: NADP Chair Tekran Instrument Corporation,	
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Wednesday, October 7, 2009

**Room Location
Daily Double Rear**

Keynote Addresses

9:10 – 9:40

**Coupled Biogeochemical Cycles:
How They Arise and What They Mean**

Bill Schlesinger, Director
Cary Institute of Ecosystem Studies

9:40 – 10:10

**The Response of Acid-impacted
Lake-watersheds in the Adirondack
Region of New York to Decreases in
Atmospheric Deposition**

Charles Driscoll, Syracuse University

10:10 – 10:40

Break

Technical Session 1:

**Are Ecosystems Responding to
Emission Reductions?**

Session Chair: Doug Burns
U.S. Geological Survey and NAPAP Chair

10:40 – 11:00

Changes in Fish Communities in Adirondack Lakes

Karen Roy, New York State Department of
Environmental Conservation

11:00 – 11:20

**Trends in Sulfate Deposition and Stream Water
Base Cation Concentrations in the Catskill Mountains
of New York**

Mike McHale, U.S. Geological Survey

11:20 – 11:40

**Discrepancies in Watershed S Budgets in Southeast
Canada and Northeast U.S.: A Comparison of Mass-
Balance Approach**

Myron Mitchell, SUNY College of Environmental
Science and Forestry

11:40 – 12:00

**Examining Sulfate Behavior along a North-South
Gradient of Unglaciaded Eastern U.S. Catchments**

Karen Rice, U.S. Geological Survey

12:00 noon – 1:30 p.m.

Lunch – On your own

Wednesday, October 7, 2009

Room Location
Daily Double Rear

Technical Session 2: The Development and Application of Critical Loads of Sulfur and Nitrogen (Part I)

Session Chair: Tamara Blett
National Park Service

1:30p.m. – 1:50p.m.

**Critical Loads Development and Use in Europe:
Applicable to USA?**

Jean Paul Hettelingh, Coordination Centre for Effects-PBL

1:50 – 2:10

Critical Loads: Science and Policy

Gary Lovett, Institute for Ecosystem Research

2:10 – 2:30

**Lichen-Based Critical Loads for Nitrogen Deposition in
Western Oregon and Washington Forests**

Linda Geiser, USDA Forest Service

2:30 – 2:50

**Methodologies for Determining Empirical Nitrogen
Critical Loads and Exceedances for CA Ecosystems**

Mark Fenn, USDA Forest Service

2:50 – 3:10

**Development of Critical N Loads Using Diatom N
Proxies: Distribution of Indicator Species in Lakes
of the Sierra Nevada of California**

Danuta Bennett, University of California, Santa Barbara

3:10 – 3:30

Break

**Technical Session 3:
Adirondacks**

A Focus on Monitoring and Research in the

Session Chair: Greg Lampman
New York State Energy Research & Development Authority

3:30 - 3:50

**Assessing the Impact of Long-term Mercury
Contamination on Wildlife Health in New York,
Using the Common Loon as a Sentinel Species**

Nina Schoch, BioDiversity Research Institute

3:50 – 4:20

**Zooplankton Recovery in Chemically Recovering,
Acidified Adirondack Lakes**

William Shaw, Sullivan County Community
College (Retired)

Wednesday, October 7, 2009

**Room Location
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**Technical Session 3:
Adirondacks
(Continued)**

A Focus on Monitoring and Research in the

Session Chair: Greg Lampman
New York State Energy Research & Development Authority

4:20p.m. - 4:40p.m.

**Acid-deposition-induced Calcium Depletion from
Adirondack Forests and the Response of Biotic
Communities to Calcium Amendment**

Timothy McCay, Colgate University

4:40 - 5:00

**Laboratory and Field Data Indicate that Acidic
Deposition-induced Calcium Depletion Disrupts
the Nutrition and Physiology of Trees, Predisposing
Them to Decline**

Paul Schaberg, USDA Forest Service

5:00 – 5:20

Measuring Soil Change to Assess Recovery Potential

Greg Lawrence, U.S. Geological Survey

5:30 p.m. – 8:00 p.m.

Poster Session and Reception

Recognition for the Adirondack Council and
address to attendees by Brian Houseal, Director

Thursday, October 8, 2009

Room

Location

**Daily Double
Rear**

8:30 a.m. – 8:40 a.m.

**Opening remarks, announcement and
overview of Day 2**

– Mark Nilles, NADP Vice Chair,
U.S. Geological Survey

Technical Session 4:

**The Development and Application of Critical
Loads of Sulfur and Nitrogen (Part II)**

Session Chair: Rich Pouyat
USDA Forest Service

8:40 – 9:00

**Critical Loads for Protection of Aquatic Resources
in the Blue Ridge, Ridge and Valley, and Appalachian
Plateau Ecoregions of Virginia and West Virginia**

Tim Sullivan, E&S Environmental Services

9:00 – 9:20

**Maryland Critical Loads and the Maryland Biological
Stream Survey**

Raymond Morgan, University of Maryland

Thursday, October 8, 2009

**Room Location
Daily Double Rear**

Technical Session 4: (Continued)	The Development and Application of Critical Loads of Sulfur and Nitrogen (Part II) Session Chair: Rich Pouyat USDA Forest Service
9:20 a.m. – 9:40 a.m.	Adapting CMAQ Deposition Fields for Critical Loads Analyses Robin Dennis, U.S. Environmental Protection Agency
9:40 – 10:00	Critical Loads as a Policy Tool: Highlights of the NO_x/SO_x Secondary National Ambient Air Quality Standard Review Anne Rea and Jason Lynch U.S. Environmental Protection Agency
10:00 – 10:20	Break
Technical Session 5:	Atmospheric Mercury Measurement and Assessment in the Northeast Session Chair: David Schmeltz U.S. Environmental Protection Agency
10:20 – 10:40	Sources and Regional Transport of Mercury to the Northeast: Insights from Air Observations at VT99 Eric Miller, Ecosystems Research Group, Ltd.
10:40 – 11:00	Atmospheric Mercury (Hg) Concentrations in New York: A Comparison between Urban and Rural Areas Hyun-Deok Choi, Clarkson University
11:00 – 11:40	Atmospheric Mercury Monitoring in Canada Pierrette Blanchard, Environment Canada
11:40 – 12:00	Atmospheric Deposition of Mercury and Its Impact on Aquatic Ecosystems Draining Forested Watersheds in Pennsylvania Elizabeth Boyer, Penn State University
12:00 noon – 1:30 p.m.	Lunch – On your own

Thursday, October 8, 2009

**Room Location
Daily Double Rear**

- Technical Session 6: Agricultural Emissions and Ecosystem Effects**
Session Chair: Beth Boyer
Pennsylvania State University
State Agricultural Experiment Station
- 1:30 p.m. – 1:50 p.m. **A Process-based Soil Ammonia Emission Model for Agricultural Soils**
Ellen Cooter, U.S. Environmental Protection Agency
- 1:50 – 2:10 **Mechanism of Ammonia Loss in Swine Effluent**
Sang Ryong Lee, North Carolina State University
- 2:10 – 2:30. **Quality Assurance and Monitoring Results of the NADP's Passive Ammonia Network**
Melissa Rury, U.S. Environmental Protection Agency
- 2:30 - 2:50 **Agricultural Ammonia Emissions and Ammonium Concentrations Associated with Precipitation in the Southeast United States**
Viney Aneja, North Carolina State University
- 2:50 – 3:15 **Multi-air Pollutant Impacts on Forage Yields: A Case Study of Alfalfa Responses in West Central Alberta, Canada**
Sagar Krupa, University of Minnesota
- 3:15 – 3:35 Break
- Technical Session 7: Evaluating Trends for Air Concentration, Deposition, Aquatic and Terrestrial Effects**
Session Chairs: Kathleen Weathers (invited)
and Tom Butler
Cary Institute of Ecosystems Studies
- 3:35 – 3:55 **Recent Evidence of Biological Recovery from Acidification in the Adirondacks**
Kristina Arseneau, Queen's University, Ontario, Canada
- 3:55 – 4:15 **Nitrogen Deposition Increases Tree Carbon Storage and Shifts Species' Competitive Balance**
R. Quinn Thomas, Cornell University

Thursday, October 8, 2009

**Room Location
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- Technical Session 7:
(Continued)** **Evaluating Trends for Air Concentration,
Deposition, Aquatic and Terrestrial Effects**
Session Chairs: Kathleen Weathers (invited)
and Tom Butler
Cary Institute of Ecosystems Studies
- 4:15 p.m. – 4:35 p.m. **Interactions of Climate Change with Acidic Deposition
in a Forest Watershed over the 21st Century Using a
Dynamic Biogeochemical Model (PnET-BGC)**
Afshin Pourmokhtarian, Syracuse University
- 4:35 – 4:55 **A National Assessment of the Ecological Effects
of Nitrogen and Sulfur Oxides**
Tara Greaver, U.S. Environmental Protection Agency
- 4:55 – 5:15 **Trends in Cloud and Rain Water Chemistry
from 1984-2007 on Mount Washington, NH (1,534 M)**
Georgia Murray, Appalachian Mountain Club

Friday, October 9, 2009

Field Trip to Huntington Forest Research Center
Organized by Doug Burns, U.S. Geological Survey and
Myron Mitchell, SUNY-ESF