

NC-NOM Symposium, 2002 Schedule

Friday, March 8

12:00 **Registration and poster set-up**, 375 Borlaug Hall

12:30 **Lunch**, 375 Borlaug Hall

1:30 **Welcome**

Session 1: Dissolved Organic Matter

306 Borlaug Hall

1:35 Keynote Speaker

**Humic Substances and Electron Transport Reactions in Aquatic Ecosystems:
The Role of Quinone Moieties.**

Diane M. McKnight

Civil, Environmental and Architectural Engineering and a fellow of the Institute of Arctic and Alpine Research, University of Colorado, Boulder.

2:20 **Landscape Scale Patterns in Dissolved Organic Carbon, an Example from Northern Sweden**

Johan Temnerud¹ and Kevin Bishop²

¹*Man-Technology-Environment Research Center, Örebro University, S-70182 Örebro, Sweden.* ²*Department of Environmental Assessment, Swedish University of Agricultural Science, Box 7050, S-750 07 Uppsala, Sweden*

2:45 **Riparian Zone Controls on the Chemical Dynamics of DOC-Rich Runoff from a Boreal Hillslope**

Kevin Bishop¹, Stephan Köhler², Jakub Hruska³ and Hjalmar Laudon⁴

¹*Department of Environmental Assessment, Swedish University of Agricultural Sciences, Box 7050, SE-750 07 Uppsala, Sweden;* ²*Géochimie : Transferts et Mécanismes CNRS (UMR 5563), University of Toulouse, 38 rue des trente-six ponts, F-31400 Toulouse, France;* ³*Czech Geological Survey, Klarov 3, CZ-118 21 Praha 1, Czech Republic;* ⁴*Ralph Parsons Lab. Civil and Environmental Engineering, MIT, Cambridge, MA, 02139, USA.*

3:05 **Characterization of Dissolved Organic Matter in Soil Water and Streams of Olympic National Park, WA**

Rose M. Cory¹, S.A. Green², K.S. Pregitzer³

¹*Civil & Environmental Engineering, Michigan Technological University, Houghton, MI, 49931, USA.* ²*Department of Chemistry, Michigan Technological University, Houghton, MI, 49931, USA.* ³*School of Forestry & Wood Products, Michigan Technological University, and USDA Forest Service North Central Experiment Station, Houghton, MI 49931, USA.*

3:35 **Posters and Coffee, 375 Borlaug Hall**

Session 2. Spectral Studies of NOM

306 Borlaug Hall

- 4:05 Lead-off Speaker
Structural Studies of NOM by Solid State NMR
Klaus Schmidt-Rohr
Department of Chemistry, Iowa State University, Ames IA 50011
- 4:50 **Characterization of Natural Organic Matter Inputs and Persistent Components in Forest Soils**
Karl J. Dria and Patrick G. Hatcher
The Ohio State University, Department of Chemistry, 100 W. 18th Ave., Columbus, Ohio 43210
- 5:15 **Reduced S in NOM and the Chemistry of Hg in Soil and Water**
Abdul R. Khwaja¹, Chung-ming Lin², Paul Bloom², Patrick Brezonik³, Soh-Joung Yoon and William Bleam⁴
¹Water Resources Science Program, ²Department of Soil, Water and Climate, University of Minnesota, ³Department of Civil Engineering, University of Minnesota, ⁴Department of Soil Science, University of Wisconsin, Madison
- 5:40 **Posters with Wine and Cheese, 375 Borlaug Hall**
- 7:00 **Dinner at the St. Paul Student Center**

Saturday, March 9

- 8:30 **Continental Breakfast, 375 Borlaug Hall**

Session 3. Dynamics of NOM

306 Borlaug Hall

- 9:00 Lead-off Speaker
Freshwater NOM and Global Carbon Cycling
James B. Cotner
Department of Ecology, Evolution and Behavior, 100 Ecology, University of Minnesota, St Paul, MN 55108-6028
- 9:45 **The Effect of Biofilm and NOM on Removal of Cryptosporidium Oocysts by Granular Media Filtration**
Xiaojun Dai and Raymond M. Hozalski
Dept. of Civil Engineering, University of Minnesota, Minneapolis, MN 55455
- 10:10 **Investigating Organic Matter Decomposition in Grasslands Under Elevated Atmospheric CO₂**
Jennifer Y. King¹, Elise Pendall², and Arvin R. Mosier³

¹ Department of Soil, Water, and Climate and Department of Ecology, Evolution, and Behavior; University of Minnesota, St Paul, MN 55108-6028. ² Institute for Arctic and Alpine Research, University of Colorado, Boulder. ³ USDA-ARS Soil-Plant-Nutrient Research, Fort Collins, Colorado

10:35 Posters and Coffee, 375 Borlaug Hall

10:45 Carbon and Nitrogen Dynamics in the Soil-Plant Continuum: Measured and Simulated.

Hero T. Gollany¹, J.A.E. Molina¹, C.E. Clapp², D.R. Linden², R.R. Allmaras², M.F. Layese¹, R.H. Dowdy², and H.H. Cheng¹

¹ Department of Soil, Water, and Climate, University of Minnesota, St. Paul, MN 55108. ²USDA-ARS, Department of Soil, Water, and Climate, University of Minnesota, St. Paul, MN 55108

11:10 Using GEMLS to Describe the Contribution of Organic Carbon to Soil Water Holding Capacity

Alan E. Olness and David Archer

USDA-ARS-MWA, NCSCRL, 803 Iowa Ave., Morris, MN 56276

11:35 The Relevance of Extracting Organic Matter Based on Binding to Polyvalent Cations

Dan C. Olk

USDA, ARS, National Soil Tilth Laboratory, Ames, IA 50011.

12:00 On the Formation of Bentonite-Humic and Bentonite-Fulvic Colloidal Systems

Dragoljub D. Bilanovic and Steven A. Spigarelli

Center for Environmental, Earth and Space Studies, Bemidji State University, Bemidji, MN 56601

12:20- 12:30 Wrap -up