

**10<sup>th</sup> International Paleolimnology Symposium**  
**June 25-29, 2006**  
**Duluth, Minnesota, USA**

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**Sunday, June 25, 2006**

- 1:00 p.m.      **Registration**  
5:00-9:00     **Opening mixer - Union Depot and Lake Superior Railroad Museum**

**Monday, June 26, 2006**

- 7:00 a.m.      **Registration and continental breakfast**  
8:00            **Symposium Welcome**  
*Emi Ito*, Professor, Geology and Geophysics, Director, Limnological Research Center, University of Minnesota, and *Daniel Engstrom*, Director, St. Croix Watershed Research Station, Science Museum of Minnesota  
8:30            **PLENARY I**  
**Lake Sediment Studies Provide Lessons for Future Landscape Sustainability: A Case Study from Sub-Tropical China**  
*John Dearing*, University of Liverpool

**CONCURRENT SCIENTIFIC SESSION A: EVALUATION OF BIOLOGICAL AND BIOCHEMICAL PROXIES**

- 9:15      **Paleogenetics in Paleolimnology: Tracing Past Population-genetic Changes Using DNA Preserved in Cladoceran Resting Eggs**  
*Joachim Mergeay*, Katholieke Universiteit Leuven  
9:30      **Preserved DNA in Holocene Lake Sediments: A Window on Past Microbial Communities and Paleoenvironments**  
*Marco Coolen*, Woods Hole Oceanographic Institution  
9:45      **Linking the Present and the Past Using Chrysophyte DNA Sequences - New Perspectives for Cyst-Based Reconstructions**  
*Christian Kamenik*, University of Bern  
10:00     **The Reconstruction of Past Changes in Ultraviolet Radiation Using Diatoms and Fossil Algal Pigments in Antarctic Lake Sediments**  
*Elie Verleyen*, Ghent University  
10:15     **Refreshment Break**

**CONCURRENT SCIENTIFIC SESSION B: INTERACTIONS OF CLIMATE CHANGE AND HUMAN IMPACTS**

- 9:15      **Human Impact Competes with Climate Influence on Varved Sediments (Lake Silvaplana, Eastern Swiss Alps)**  
*Alex Blass*, EAWAG  
9:30      **Natural and Human Induced Eutrophication in a 13 kyrs Long Multi-Proxy Sediment Record from Lake Lavarone (Trentino, NE Italy)**  
*Nicola Angeli*, Museo Tridentino di Scienze Naturali  
9:45      **Lake Ontario Wetlands and Hudson River, New York Marshes - The Last Millennium of Human and Climate Impacts**  
*Dorothy Peteet*, NASA/GISS and LDEO  
10:00     **Determining the Historical Impact of Water-level Management on Lakes in Voyageurs National Park: Namakan Lake and Lac La Croix**  
*Claire Serieyssol*, University of Minnesota  
10:15     **Refreshment Break**

- 10:45 **Lake Circulation Inferred from High Resolution Modern Diatom Data**  
*Sonja Hausmann, Université Laval*
- 10:45 **Sediment Organic Matter Records of Iroquoian and Euro-Canadian Eutrophication in Crawford Lake, Canada**  
*Jane Teranes, Scripps Institution of Oceanography*
- 11:00 **Chironomidae (Insecta: Diptera) as Indicators for Past Climate Variation in African Lakes**  
*Hilde Eggermont, Ghent University*
- 11:00 **Paleoguanotrophy of Crawford Lake, Ontario, Induced by Canada Geese who Foraged on 14th Century Iroquoian Fields**  
*John McAndrews, University of Toronto*
- 11:15 **Sexual reproduction in Chydorid Cladocera as a New Method to Study Past Climate Change: The State-of-the-Art**  
*Kaarina Sarmaja-Korjonen, University of Helsinki*
- 11:15 **New Palaeolimnological Records from the Galapagos Islands, Ecuador**  
*Iona Flett, Australian National University*
- 11:30 **Reconstructing Lake Productivity: Limitations, Progress and Future Requirements**  
*John Anderson, Loughborough University*
- 11:30 **The Impact of European Occupation on Terrestrial and Aquatic Ecosystem Dynamics in an Australian Tropical Rain Forest**  
*Simon Haberle, Australian National University*
- 11:45 **Multi-Proxy Approaches for Understanding Long-Term Ecosystem Dynamics in Pacific Salmon Lakes**  
*Bruce Finney, University of Alaska Fairbanks*
- 11:45 **Palaeolimnology and the Environmental History of Lake Qarun During the Late Holocene**  
*Roger Flower, University College London*
- 12:00 p.m. **Lunch / Exhibits**
- 1:00 **PLENARY II**  
**Climate, Environment and Human Interactions in the Central Andes: From the Holocene to the Anthropocene**  
*Martin Grosjean, University of Bern*
- CONCURRENT SCIENTIFIC SESSION A: EVALUATION OF BIOLOGICAL AND BIOCHEMICAL PROXIES**
- 1:45 **Seabirds, Whales, and Salmon: Tracking the Effects of Marine-Derived Nutrients and Contaminants on Freshwater Ecosystems Using Paleolimnology**  
*John Smol, Queen's University*
- 2:00 **Caveats on the Use of Paleolimnology to Infer Pacific Salmon Returns**  
*Will Hobbs, University of Alberta*
- 2:15 **Towards Understanding Environmental Drivers of Pacific Salmon Production: Millennial-Scale Paleolimnological Evidence**  
*Daniel Selbie, Queen's University*
- CONCURRENT SCIENTIFIC SESSION B: HUMAN IMPACTS AND CLIMATE CHANGE IN THE NEOTROPICS**
- 1:45 **Lake Sediment Archives of Archaeometallurgy from the Central Peruvian Andes**  
*Colin Cooke, University of Pittsburgh*
- 2:00 **Diatom-based Records of Holocene Environmental Change from Two Central Mexican lakes**  
*Sarah Davies, University of Aberystwyth*
- 2:15 **A High Resolution Record from Juanacatlan, West-Central Mexico: Holocene Climatic Forcing in the Neotropics**  
*Sarah Metcalfe, University of Nottingham*

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| 2:30 | <b>Reconstructing Temperature Quantitatively in Lacustrine systems: Development and Application of the TEX86 Paleothermometer</b><br><i>Josef Werne, University of Minnesota Duluth</i> | 2:30 | <b>Stable Isotopes as Archives of Environmental Change in Central Mexican Freshwater Lakes: Laguna Zirahuén, Michoacán</b><br><i>Ben Aston, University of Wales, Aberystwyth</i>                       |
| 2:45 | <b>A 750-Year Molecular and Isotopic Record of Environmental Change from Lake Malawi, East Africa</b><br><i>Isla Castaneda, University of Minnesota Duluth</i>                          | 2:45 | <b>Preliminary Geochemistry and Stable Isotope Results of a 2800 Year Laminated Record from a Tropical Lake in Western-Central Mexico</b><br><i>Socorro Lozano-Garcia, Universidad A. N. de Mexico</i> |
| 3:00 | <b>A 70-Year Record of Population Dynamics of a Freshwater Centric Diatom from Varved Sediments</b><br><i>Virginia Card, Metropolitan State University</i>                              | 3:00 | <b>Human Impact and Environmental Variability during the Last ca. 2000 Years on the Tropical Lowlands of the Gulf of Mexico</b><br><i>Margarita Caballero, Universidad A. N. de Mexico</i>             |
| 3:15 | <b>Poster Session with Coffee and Cash Bar (SEE POSTER ABSTRACTS BELOW)</b>   |      |  |
| 5:00 | <b>Adjourn</b>  |      |  |

**Tuesday, June 27, 2006**

- 8:30 a.m.      **PLENARY III**  
**Nitrogen and Carbon Isotope Geochemistry of Lacustrine Sediments**  
*Stefano Bernasconi, ETH Zurich*

**CONCURRENT SCIENTIFIC SESSION A: MULTIPLE AND REGIONAL LAKE STUDIES**

- 9:15      **The Role of Palaeolimnology in Lake Restoration**  
*Helen Bennion, University College London*
- 9:30      **Assessing Changes in Macrophyte Cover, Between Historical and Present Conditions, for 103 lakes in the Northeastern United States using Diatom Assemblages**  
*Jesse Vermaire, McGill University*
- 9:45      **Evidence for a Shift in the Pelagic Cladoceran Community Since Pre-Industrial Times in Lakes in South-Central Ontario, Canada**  
*Anna M. DeSellas, Queen's University*
- 10:00      **Are Upland Lakes in the UK Succumbing to the Nitrogen Cascade?**  
*Gavin Simpson, University College London*

10:15      **Refreshment Break**

**CONCURRENT SCIENTIFIC SESSION B: TESTING AND CALIBRATION OF PROXIES**

- 9:15      **Sensitivity of Biogenic Silica Oxygen Isotopes to Changes in Surface Water Temperature - A Calibration Study in Lake Holzmaar, Germany**  
*Robert Moschen, Forschungszentrum Jülich*
- 9:30      **Holocene Climatic Change in Southwestern Alaska: A Diatom- $\delta^{18}O$  Record from Ongoke Lake**  
*Andrew Henderson, University of Illinois*
- 9:45      **Climatic Pacing of Mediterranean Fire History from Lake Sedimentary Micro-Charcoal**  
*Rebecca Turner, University of Plymouth*
- 10:00      **New Approach to Quantitative Reconstruction of Past Vegetation Cover Inferred from Fossil Pollen - Implications for Applications within Palaeolimnology**  
*Marie-José Gaillard, University of Kalmar*

10:15      **Refreshment Break**

- 10:45 **Developing a European Meta-Database for Recent Palaeolimnological Studies - A Potentially Global Application**  
*Rick Battarbee, University College London*
- 10:45 **The Curse of Kutnahorite**  
*Lora Stevens, California State University-Long Beach*
- 11:00 **Integration of Palaeolimnology, Ecology and Catchment Modelling to Support the Implementation of the Water Framework Directive in Ireland**  
*Catherine Dalton, University of Limerick*
- 11:00 **An Optically-Stimulated Luminescence Chronology of Holocene Lake Sediments: An Example from the British Isles**  
*Zhixiong Shen, University of Liverpool*
- 11:15 **Biomonitoring Using Diatoms and Paleolimnology in the Western Great Lakes National Parks, USA**  
*Mark Edlund, Science Museum of Minnesota*
- 11:15 **Freshwater Ostracods are Not Only an Excellent Geo-Chemical Calcite Source**  
*Finn Viehberg, Université Laval*
- 11:30 **Great Lakes Diatom Tools: Advantages over Chemical Measurements in Paleolimnological and Monitoring Programs**  
*Euan Reavie, University of Minnesota Duluth*
- 11:30 **Reconstructing Palaeoenvironmental Changes from Polish Peatlands with Use of Testate Amoebae (Protists)**  
*Mariusz Lamentowicz, Adam Mickiewicz University*
- 11:45 **Developing Phosphorus Standards for Minnesota: Use of Presettlement Lake Concentrations Inferred from Fossil Diatoms**  
*Edward Swain, Minnesota Pollution Control Agency*
- 11:45 **Use of Dinoflagellate Cysts in Paleolimnology as Proxies: Challenges and Limits**  
*Massimiliano Tardio, Museo Tridentino Scienze Naturali*

12:00 p.m. **Lunch / Exhibits**

1:00 **PLENARY IV**

**Bridging the Gap: Ancient Metal Pollution and Contemporary Biogeochemistry**

*Richard Bindler, Umeå University*

**CONCURRENT SCIENTIFIC SESSION A: MULTIPLE AND REGIONAL LAKE STUDIES**

- 1:45 **A Reference Standard for Spheroidal Carbonaceous Particle Analysis in Lake Sediments**  
*Neil Rose, University College London*
- 2:00 **Drought-Induced Re-Acidification Re-Visited: Responses of Algal Communities in Acid-Sensitive Lakes along a Wetland Gradient**  
*Michelle Crenshaw, University of Waterloo*
- 2:15 **Paleolimnological Assessment of Acidification in Nova Scotia (Canada) Lakes and the Applicability of a 487-Lake Diatom-Based Calibration Set from Northeastern North America**  
*Brian Ginn, Queen's University*

**CONCURRENT SCIENTIFIC SESSION B: PROCESSES AND COMPLEXITIES OF THE SEDIMENT RECORD**

- 1:45 **The Impact of Basin Morphology on Diatom Response to Mid-Holocene Climate Change: A Paired Study of Lake Itasca and Elk Lake, Clearwater County, Northcentral Minnesota, USA**  
*Kristina Brady, University of Minnesota*
- 2:00 **Behavior of Dissolved Inorganic Carbon Stable Isotopic Values ( $\delta^{13}\text{CDIC}$ ) in Small Hardwater Lakes**  
*Amy Myrbo, University of Minnesota*
- 2:15 **Hydrology and Climate Record in Lake Sediments**  
*Emi Ito, University of Minnesota*

2:30 **The Role of Lake-Dotted Landscapes in Regional Climate Change as Illustrated by Spatial and Temporal Analysis of Historic Lake-Level Change in Minnesota, USA**  
*Colin Plank, University of Minnesota*

2:30 **Bottom Topography and Sedimentation Dynamics in Small Estonian Lakes**  
*Jaanus Terasmaa Tallinn University*

2:45 **Holocene Aridity in the Western USA: Patterns and Processes Inferred from Lake Sediments**  
*Katrina Moser, University of Western Ontario*

2:45 **Do Stochastic Events Affect Sedimentation in a Shallow Phytoplankton-Dominated Lake?**  
*William Kenney, University of Florida*

3:00 **Reconstructing Climate from Palaeolimnological Archives Using Multiple Proxy Indicators and Sites Simultaneously**  
*Atte Korhola, University of Helsinki*

3:00 **Effects of Early Diagenetic Processes on Carbon and Mercury Concentrations in Lake Sediment**  
*Johan Rydberg, Umeå University*

3:15 **Poster Session with Coffee and Cash Bar (SEE POSTER ABSTRACTS BELOW)**  
5:00 **Adjourn**

### Wednesday, June 28, 2006

8:30 a.m. **PLENARY V**  
**Deciphering Climatic Signals from Lake Sediments**  
*Sherilyn Fritz, University of Nebraska*

#### CONCURRENT SCIENTIFIC SESSION A: PLEISTOCENE CLIMATE RECORDS

9:15 **A 1 Ma West African Paleoclimate Record from Lake Bosumtwi, Ghana**  
*John Peck, University of Akron*

9:30 **Two Mid-Pleistocene Glacial Cycles from Lacustrine Deposits in the Valles Caldera, New Mexico**  
*Peter Fawcett, University of New Mexico*

9:45 **Biological and Geochemical Proxies for Rapid Environmental Change from Auckland Maar Lake Records**  
*Paul Augustinus, University of Auckland*

10:00 **Lake Van Drilling Project, Turkey 'PaleoVan' - A New ICDP Initiative**  
*Thomas Litt, University of Bonn*

10:15 **Refreshment Break**

#### CONCURRENT SCIENTIFIC SESSION B: ARCTIC ECOSYSTEM RESPONSE TO CLIMATE CHANGE

9:15 **Lake Ecosystem Response to Changes in Climate and Nutrient Cycling During the Late Holocene**  
*Nina Reuss, Lund University*

9:30 **Multiproxy Investigation of late-Holocene Lake Ecosystem Dynamics in a Low Arctic Landscape, Northern Ungava, Canada**  
*Emilie Saulnier-Talbot, Université Laval*

9:45 **Paleolimnological History of the Southampton Island (Nunavut, Canada)**  
*Nicolas Rolland, Institut National de la Recherche Scientifique*

10:00 **Environmental Change Inferred from Diatoms and Fossil Pigments in Lake and Epishelf Systems in the Canadian High Arctic**  
*Dermot Antoniades, Université Laval*

10:15 **Refreshment Break**

**CONCURRENT SCIENTIFIC SESSION A: CLIMATE  
IMPACTS ON FLUVIAL SYSTEMS**

- 10:45 **The Slave River Delta Paleolimnology  
Project: Objectives and Research Approaches**  
*Bronwyn E. Brock*, University of Waterloo
- 11:00 **Informing Paleolimnological Interpretations  
of the Slave River Delta from Contemporary  
Studies of Hydrology, Limnology and Aquatic  
ecology**  
*Michael Sokal*, University of Waterloo
- 11:15 **Climate-Driven Co-Variance in Isotope  
Paleohydrology: Slave River and Peace-  
Athabasca Deltas**  
*Cherie Mongeon*, Wilfrid Laurier University
- 11:30 **Paleohydrology & Paleoecology of a Flood-  
Susceptible Pond in the Slave River Delta - A  
Multiproxy Approach**  
*Maggie Adam*, University of Waterloo
- 11:45 **Chironomids as Indicators of Flooding in the  
Peace-Athabasca Delta, Canada**  
*Isabelle Larocque*, Institut National de la  
Recherche Scientifique

- 12:00 p.m. **Lunch / Exhibits**  
1:00-5:00 **Field Trip (TBD)**  
6:30-1:00 a.m. **Conference Dinner**

**Thursday, June 29, 2006**

- 8:30 a.m. **PLENARY VI**  
**Degradation and Destabilization of Freshwater Ecosystems by Diffuse and Urban Sources of  
Nitrogen**  
*Peter Leavitt*, University of Regina

**CONCURRENT SCIENTIFIC SESSION A: HUMAN  
IMPACTS IN FLUVIAL AND ESTUARINE SYSTEMS**

- 9:15 **Trends in Coastal Eutrophication of the Gulf  
of Finland (Baltic Sea) as Traced by Subfossil  
Diatoms**  
*Kaarina Weckström*, University of Helsinki

**CONCURRENT SCIENTIFIC SESSION B: CLIMATE  
CHANGE IN THE TIBETAN PLATEAU**

- 10:45 **Identifying the Causes of Recent Lake Level  
Fluctuations in Ahung Co (Tibet)**  
*Carrie Morrill*, NOAA National Climatic Data  
Center
- 11:00 **Complex Responses of Regional Climate on  
the Northeastern Tibetan Plateau to Holocene  
Large-Scale Climate Forcing**  
*Zicheng Yu*, Lehigh University
- 11:15 **Paleoenvironmental Changes on the South-  
Eastern Margin of the Tibetan Plateau: A  
Pollen-Data Based Analysis**  
*Annette Kramer*, Alfred Wegener Institute  
Potsdam
- 11:30 **Climate Change in Arid Central Asian  
Interior Since LGM Documented by Multi-  
Proxies of Core Sediment, Lake Bosten,  
China**  
*Fa-Hu Chen*, Lanzhou University
- 11:45 **Dust Storms Documented by a Hydrologically  
Enclosed Lake in Arid China**  
*Mingrui Qiang*, Lanzhou University

**CONCURRENT SCIENTIFIC SESSION B: MULTI-PROXY  
CLIMATE RECORDS**

- 9:15 **Multi-Isotope Approach to Decipher  
Hydrological Changes in the Southern  
Patagonia Steppe (52°S) During the Last  
16,000 Year from Lake Sediments of Laguna  
Petrok Aike**  
*Christoph Mayr*, Forschungszentrum Juelich

- 9:30 **Paleolimnology of a Large River System: Findings from Floodplain Wetlands and a Natural Impoundment of the St. Croix River, Minnesota-Wisconsin, USA**  
*Joy Ramstack, Science Museum of Minnesota*
- 9:30 **Climate Variability of Southern Chile since the Last Glacial Maximum: A Continuous Multi-Proxy Sedimentological Record from Lago Puyehue (40°S)**  
*Sebastien Bertrand, Woods Hole Oceanographic Institution*
- 9:45 **Processes, Models, and Complexities of the Sediment Record**  
*Walter Dean, US Geological Survey*
- 9:45 **Holocene Climate Records in Silver Lake, Ohio**  
*Julie Wolin, Cleveland State University*
- 10:00 **The Laguna de Taravilla Record as a Paleoflood Indicator in the Central Iberian Range (Spain) during the Last 2000 Years: Interactions of Climate and Human Activities in the Watershed**  
*Ana Moreno, Instituto Pirenaico De Ecología-CSIC*
- 10:00 **Modes of Atmospheric Circulation over Midwestern North America during the Past Four Millennia**  
*Antje Schwalb, Technische Universität Braunschweig*
- 10:15 **Refreshment Break**
- 10:15 **Refreshment Break**
- 10:45 **Multiple Drivers of Limnological Change: Floodplain Wetlands of the Lower Murray-Darling Basin, Australia**  
*Peter Gell, University of Adelaide*
- 10:45 **Chironomid Assemblage Changes in the Lacustrine Sediments of Hijkermeer (The Netherlands): A Late-Glacial Palaeotemperature Record from the Northwest European Lowlands**  
*Oliver Heiri, Utrecht University*
- 11:00 **Wetlands within the Mid-Region of the Murrumbidgee Floodplain: Reflections of Past Water Quality to Guide Wetland Restoration Measures**  
*Fiona Little, University of Adelaide*
- 11:00 **Climate Related History of Soft-Water, Lobelia Lakes at the SE Limit of their Range in Europe**  
*Krystyna Milecka, Adam Mickiewicz University*
- 11:15 **Utilising Palaeoenvironmental Methods to Reveal the Water Quality and Ecological Character of the Coorong, South Australia**  
*Deborah Haynes, University of Adelaide*
- 11:15 **Seismic Profiling, Lake Drillings and Palaeoecological Investigation of Ostrowite Lake ("Bory Tucholskie" National Park - Northern Poland)**  
*Grzegorz Kowalewski, Adam Mickiewicz University*
- 11:30 **Silica Fluxes in Two Large, Natural Riverine Lakes Help Quantify Human Impacts to Global Silica Cycle**  
*Laura Triplett, University of Minnesota*
- 11:30 **Late Pleistocene and Holocene Environmental and Climatic Change from Lake Tana, Northern Ethiopia**  
*Michael Marshall, University of Aberystwyth*
- 11:45 **Limnogeologic Histories and Risks for Istanbul's Primary Water Resources**  
*Lisa Doner, Istanbul Technical University*
- 11:45 **Wetland Sediments and Landscape Change During the Holocene in Muriyad Region, Kerala, India**  
*Hema Achyuthan, Anna University*

12:00 p.m. **Lunch / Exhibits**  
1:00 **PLENARY VII**  
**Experimental and paleolimnological approaches to understanding ecosystem change**  
*Jasmine Saros, University of Wisconsin-La Crosse*

**CONCURRENT SCIENTIFIC SESSION A: ECOSYSTEM  
RESPONSE TO NUTRIENT ENRICHMENT**

- 1:45 **A Cladoceran Microfossil Analysis of Lake Response to Sewage Input, Nutrient Diversion, and Subsequent Lake Basin Developments**  
*Patricia R. Sanford, University of Wisconsin*
- 2:00 **Cultural Eutrophication of Lake Windermere during the Victorian Era: Comparison of Limnological and Palaeolimnological Records**  
*Suzanne McGowan, University of Nottingham*
- 2:15 **Long-term Dynamics of Submerged Macrophytes and Algae in a Small and Shallow Lake: Implications for the Stability of the Macrophyte-Dominated State**  
*Carl Sayer, University College London*
- 2:30 **Degradation of Water Quality in Lough Neagh, Northern Ireland, By Diffuse Nitrogen Flux from a Phosphorus-Rich Catchment**  
*Lynda Bunting, University of Regina*
- 2:45 **Contrasting Trophic Histories of Two UK Lowland Reservoirs: A Combined Analysis of Fossil and Contemporary Diatom Populations**  
*Amy Burgess, University College London*
- 3:00 **Combining Limnological and Palaeolimnological Approaches in Assessing Degradation of Lake Pskov**  
*Mihkel Kangur, Tallinn University*

3:15 **Refreshment Break**  
3:45 **Business Meeting**

**CONCURRENT SCIENTIFIC SESSION B: PALEO-GREAT  
LAKES**

- 1:45 **Changes in Water Level, Vertical Ground Movement, Shoreline Behavior and Climate in the Lake Superior Basin during the Last 5,000 Years.**  
*John Johnston, University of Waterloo*
- 2:00 **Microfossil Evidence for Closed-basin Lowstand Conditions in Georgian Bay 8200 Years Ago**  
*Francine McCarthy, Brock University*
- 2:15 **A Phase of Terminal Paleo-laurentian Great Lakes, an Opportunity to Evaluate their Hydrological Response to High-Amplitude Climate Change**  
*Michael Lewis, Geological Survey of Canada*
- 2:30 **Additional Radiocarbon Control for the Deglaciation and Subsequent Landscape Development of Northeastern Minnesota**  
*Katherine Glover, Charlotte Catholic High School*
- 2:45 **Glacial Lake Great Falls: Stratigraphic Context and Landscape Ecology of a Pleistocene Lake along the Southwest Margin of the Laurentide Ice Sheet**  
*Christopher Hill, Boise State University*
- 3:00 **History of the Lake Ladoga–Baltic Sea Connection during the Holocene and Early Human Migration**  
*Dmitry Subetto, Institute of Limnology at RAS*

**MONDAY'S POSTER SESSION ABSTRACTS:**

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**POSTER SESSION A: BIOLOGICAL PROXIES**

- A-1 **Can We Trust Quantitative Palaeoenvironmental Reconstructions? Validation Using Redundancy Analysis with Constraints on Variables**  
*Steve Juggins, University of Newcastle*
- A-2 **Obtaining a Quantitative Number of Specimen from Sub-Samples by Means of Markers; An Example Using Chironomids**  
*Gaute Velle, University of Bergen*

- A-3 **Sub-fossil Diatoms as Indicators of Environmental Change in High-Latitude Lakes in Finnish Lapland from Pre-Industrial Times to Present Day**  
*Sanna Sorvari*, University of Helsinki
- A-4 **Tracking the Roles of Droughts and Watershed Activities on Water Quality in Boreal Plain Lakes of Alberta by Comparing Stratified and Polymictic Basins**  
*Zofia Taranu*, McGill University
- A-5 **Chironomids as Palaeoclimatic Indicators: A Palaeoecological and Biogeochemical Perspective**  
*Frederike Verbruggen*, Utrecht University
- A-6 **Holocene Temperature Reconstructions from Southern Greenland Lake Sediments Based on Midge Remains**  
*Donna Francis*, University of Massachusetts
- A-7 **An Inference Model for Mean Summer Temperatures during the Late Glacial Transition in the Southern Alps, New Zealand, Using Subfossil Chironomids**  
*Ann Dieffenbacher-Krall*, University of Maine
- A-8 **Historical Analysis of the Subfossil Chironomid Variability in Lakes under Natural Disturbances in the Boreal Forest of Quebec, Canada**  
*Vicky Tremblay*, Institut National de la Recherche Scientifique
- A-9 **Validation of Palaeotemperature Proxies in European Lakes**  
*André Lotter*, Utrecht University
- A-10 **Cladoceran Remains in Annually Laminated Sediment of Lake Vesijärvi Reflect Known Changes in Ambient Fish Density**  
*Mirva Nykänen*, University of Helsinki
- A-11 **Chaoborus as Indicators of Low Hypolimnetic Oxygen Concentrations in Calibration Sets and Down-Core Reconstructions**  
*Roberto Quinlan*, York University
- A-12 **Arcellaceans (Testate Amoebae) as Indicators of Mine Drainage in a Bay of Lake Retunen, Finland**  
*Susanna Kihlman*, Geological Survey of Finland
- A-13 **Crustacean Zooplankton Ehippia (Resting Eggs) as Indicators of Lake Calcium Concentration: A Pilot Project**  
*Adam Jeziorski*, Queen's University
- A-14 **The Diatom Paleolimnology Data Cooperative (DPDC): Status and Current Issues**  
*Donald Charles*, Philadelphia Academy of Natural Sciences
- A-15 **Applications of the New North American Non-Marine Ostracode Database: NANODE version 1: [www.kent.edu/NANODE](http://www.kent.edu/NANODE)**  
*Alison Smith*, Kent State University

#### POSTER SESSION A: ECOSYSTEM RESPONSE TO NUTRIENT ENRICHMENT

- A-16 **Impacts of Present-Day and Past Bird Populations on the Nutrient and Contamination Status of Freshwater Lakes on Bylot Island**  
*Ghislain Côté*, Université Laval

- A-17 **A Water Quality Analysis of 3 Minnesota Lakes Spanning 150 Years Using Diatoms as Ecological Indicators**  
*Tiffany Kapushinski*, Saint Cloud State University
- A-18 **Paleolimnological Records of Human Impact on Bass Lake, Ohio**  
*Christina Znidarsic*, Cleveland State University
- A-19 **Long Term Dynamics of Macrophyte Composition in Response to CO<sub>2</sub> Enrichment**  
*Peter Spierenburg*, Utrecht University
- A-20 **Diatom-Inferred Environmental Changes of Dutch Delta Lakes during Historical Time**  
*Emiliya Kirilova*, Utrecht University
- A-21 **Stable Isotopes of Nitrogen and Carbon as Paleolimnological Indicators of Anthropogenic Eutrophication**  
*Richard Brugam*, Southern Illinois University Edwardsville
- A-22 **Trophic Status of Lake Champlain Over 400 Years of Changing Land-Use: I. Elemental and Isotopic Records**  
*Heather Burgess*, University of Vermont
- A-23 **Trophic Status of Lake Champlain over 400 Years of Changing Land-Use: II. Sediment Chemistry**  
*Milton Ostrofsky*, Allegheny College
- A-24 **Trophic Status of Lake Champlain Over 400 Years of Changing Land Use. Part III. Biological Indicators**  
*Suzanne Levine*, University of Vermont

#### POSTER SESSION A: MULTIPLE AND REGIONAL LAKE STUDIES

- A-25 **Nutrient Threshold Levels for Shifts to Cyanobacterial Dominance: A Paleolimnological Survey of Shallow, Productive Florida Lakes**  
*Melanie Riedinger-Whitmore*, University of South Florida-St. Petersburg
- A-26 **Stable Isotopes and C/N Ratios in Recent Lake Sediments as Proxy Indicators of Human Disturbance and Trophic Change: A Case Study from Vermont Lakes**  
*Andrea Lini*, University of Vermont
- A-27 **Development of a Diatom Calibration Set to Test the Landscape Position Concept in Lakes of Northeastern Wisconsin**  
*Jarvis Erickson*, University of Wisconsin-La Crosse
- A-28 **Climate and Landscape in Mongolia's Valley of the Great Lakes**  
*Avery Shinneman*, University of Minnesota
- A-29 **Reconstruction of Productivity Changes in Western Mongolian Lakes Using Biogenic Silica and Phosphorus Extracted from Sediments**  
*Charles Umbanhowar Jr.*, St. Olaf College
- A-30 **Modes of Occurrence of Arsenic, Cadmium and Lead in Finnish Lake Sediments**  
*Jari Mäkinen*, Geological Survey of Finland

#### POSTER SESSION A: INTERACTIONS OF CLIMATE CHANGE AND HUMAN IMPACTS

- A-31 **Assessing Thule Inuit impacts on High Arctic Lakes and Ponds: A Paleolimnological Approach**  
*Kris Hadley*, Queens University

- A-32 **Paleohydrological Changes in Rapa Nui (27°S) During the Last Millennia Reconstructed from Rano Raraku and Rano Aroi Lakes**  
*Blas Valero-Garces, Instituto Pirenaico de Ecología*
- A-33 **Spatial Aspects of the Responses of Sedimentation to Climate and Anthropogenic Activities in the Lake Bosomtwe Meteorite Impact Crater**  
*Megan Puchniak, University of Waterloo*
- A-34 **Multi-Proxy Lake Sediment Records of Holocene Climate Variability and Land Use Change from Northern Greece**  
*Benjamin Cavallari, University of Pittsburgh*
- A-35 **Multiple Isotope and Pollen Evidence for Natural and Human-Induced Environmental Changes at White Lake, New Jersey**  
*Long Li, Lehigh University*
- A-36 **Climatic and Anthropogenic Impact on Perialpine Lake Constance During the Last 15,000 Years - Implications from Organic Biomarkers, Ostracodes and Transient Simulations**  
*Sabine Hanisch, Technische Universität Braunschweig*
- A-37 **Impacts of Timber Harvest on Erosion in Whitefish Lake, Montana and Corroboration of 210-Pb Core Dating Using 137-Cs and Visual Bands from Forest Fires and Fly Ash from Locomotives**  
*Craig Spencer, Augustana College*
- A-38 **Varved Lake Sediments in North-Eastern Poland (Central Europe)**  
*Wojciech Tylmann, Gdansk University*
- A-39 **Changes in Element Concentrations and Stable Isotope Ratios of N and C in Sediment of Two Pristine Lakes in Finland**  
*Jarmo J. Meriläinen, University of Jyväskylä*
- A-40 **Arsenic Contamination of Lake Sediments in Highlands County, Florida, U.S.A.: A historic record of Mobility from Watershed Soils**  
*Thomas Whitmore, University of South Florida-St. Petersburg*

## **TUESDAY'S POSTER SESSION ABSTRACTS:**

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### **POSTER SESSION B: TESTING AND CALIBRATION OF PROXIES**

- B-1 **Oxygen Isotope Ratios of Water and Biogenic Silica in a Remote Mountain Lake: On the Importance of Seasonality in Palaeoclimate Interpretation**  
*Jonathan Tyler, University College London*
- B-2 **Can Reference Conditions for Sediment Accumulation Rates be Identified for Different European Lake Types?**  
*Neil Rose, University College London*
- B-3 **Burial Dating Using in Situ-produced Cosmogenic Nuclides: An Example from the Lake Malawi Drilling Project**  
*Erik Brown, University of Minnesota*
- B-4 **Organic Geochemical Indicators of Environmental Change Using Lake Sediments**  
*Emma Pearson, University of Newcastle*
- B-5 **Recovery of Uncontaminated Sediment Core Samples**  
*John Glew, Queen's University*

## POSTER SESSION B: ECOSYSTEM RESPONSE TO SALINITY AND LAKE LEVEL CHANGES

- B-6 **A Revised Stratigraphy from Fenton Lake, Ontario: Evidence for Northern Drainage of Lake Superior Prior to 9,000 cal BP (8.1 14C ka)**  
*Andy Breckenridge, Mercyhurst College*
- B-7 **Prairie Wetland Sediment Records: Can Stable Isotopes Detail Hydroperiod and Climate Variability?**  
*Craig Stricker, US Geological Survey*
- B-8 **Geochemistry of Ostracode Calcite in Euryhaline Ostracode *Cyprideis Torosa* (Jones, 1850) and its Relation to Different Environmental Variables and Possible Applications in Paleocological Records**  
*Javier Marco-Barba, University of Valencia*
- B-9 **Salinity Changes in Albufera Lagoon (Eastern Iberian Peninsula) Inferred by Ostracode Assemblages and Geochemistry**  
*Javier Marco-Barba, University of Valencia*
- B-10 **Aquatic Community Response to Salinity Increase in a Groundwater-fed Lake System during Late-Holocene Desiccation of the Central Sahara Desert**  
*Dirk Verschuren, Ghent University*
- B-11 **Paleolimnological Record on Holocene Groundwater Table Fluctuations in a Perched Aquifer, SW-Finland**  
*Veli-Pekka Salonen, University of Helsinki*
- B-12 **Eustatic and Topographic Controls of Holocene Wetlands in the Western Mediterranean (Eastern Spain)**  
*Jose Mediato, Geological Survey of Spain*

## POSTER SESSION B: PLEISTOCENE AND OLDER CLIMATE RECORDS

- B-13 **Sediments of Lake Iznik as a Monitor of Long-Term Tectonic and Climatic Changes in the Marmara Region (Turkey): Evidence from Seismic Pilot Studies**  
*Frank Niessen, Alfred Wegener Institute*
- B-14 **Sedimentary Fill of High-Latitude Meteorite Impact Crater Lake El'gygytyn**  
*Andrea Catalina Gebhardt, Alfred Wegener Institute*
- B-15 **Preliminary Results of the Lake Peten Itza Scientific Drilling Project (PISDP)**  
*David Hodell, University of Florida*
- B-16 **Chironomidae (Diptera) Bioturbation in Oligocene Lake Basin (Tremembé Formation, Taubaté Basin), Brazil**  
*Monica Andrade-Morrays, Federal University of São Carlos*
- B-17 **Reconstruction of Late Paleozoic Terrestrial Environments: Geochemical and Palynological Investigations of Early Permian Lake Sediments - Saar-Nahe Basin, W. Germany**  
*Andrea B. Müller, Westfälischen Wilhelms-Universität Münster*

## POSTER SESSION B: CLIMATE CHANGE

- B-18 **Environmental Magnetism from Santa Maria del Oro Crater Lake Sediments, Nayarit, Mexico**  
*Gabriel Vazquez, Universidad A. N. de Mexico*
- B-19 **A High Resolution Record from Juanacatlán, West-Central Mexico: Interpretation and Analysis of High Resolution Data Sets**  
*Matthew Jones, University of Nottingham*

- B-20 **Multiproxy Environmental Study in Zirahuen Lake, Central Mexico**  
*Beatriz Ortega*, Universidad A. N. de Mexico
- B-21 **Late Holocene Centennial-Scale Climatic Variability: Evidence from the Ostracod Geochemistry Record of a Subtropical Latitude Lake at Western Mexico**  
*Alejandro Rodríguez*, Universidad A. N. de Mexico
- B-22 **A 2300-Year Record of Holocene Climate Variability from Lago Enriquillo, Dominican Republic**  
*David Buck*, University of Florida
- B-23 **The Extinct Cauca Lake: A Potential High-Resolution Climate Record from Northwestern South America for the Late Holocene**  
*Jose Martínez*, EAFIT University
- B-24 **Changes in Diatoms, Chironomids and Pollen Assemblages as Response to a Recent Volcanic Event in Lake Galletue (Chilean Andes)**  
*Roberto Urrutia*, Centro EULA-Chile, Universidad de Concepcion
- B-25 **Early Holocene Monsoonal Impact on Naradu Glacier Lake, Himachal Pradesh, India**  
*R.K. Ganjoo*, University of Jammu
- B-26 **The Discovery of Annual Lamination in Inner Arid Region Sugan lake of China and its Significance**  
*Aifeng Zhou*, Lanzhou University
- B-27 **Holocene vegetation and Climate History at Hurleg Lake in the Qaidam Basin, Northwest China**  
*Yan Zhao*, Lanzhou University
- B-28 **Evolution of a Pond on the Deves Plateau in the French Massif Central**  
*Karen Serieyssol*, Editor Diatom Research
- B-29 **Replicating Proxy-Climate Records: A Lake Sediment Based Study from the East Mediterranean**  
*C Neil Roberts*, University of Plymouth
- B-30 **High-Altitude Lake in NE Italian Alps (Trentino, Italy): A Condensed and Unexpectedly Old Sediment Record from Lake Nero di Cornisello**  
*Maria Letizia Filippi*, Museo Tridentino Scienze Naturali
- B-31 **Cyclic Deposition of Carbonate and Organic Matter in Holocene lacustrine Sediment, Lower Michigan, USA**  
*Jennifer Nelson*, Indiana University, Purdue University Indianapolis
- B-32 **Holocene Climate Changes Derived from Calcite Stable Isotopes at Lake Grinnell, Northern New Jersey and Possible Insolation Control**  
*Cheng Zhao*, Lehigh Univeristy
- B-33 **Drought 7,700-8,200 cal. Years BP in the Laurentide Great Lakes Region**  
*John McAndrews*, University of Toronto

**POSTER SESSION B: HUMAN AND CLIMATE IMPACTS IN FLUVIAL AND ESTUARINE SYSTEMS**

- B-34 **A Diatom-Nutrient Transfer Function for Assessing Human Impacts on Southeast Australian Coastal Lagoons since European Settlement**  
*Krystyna Saunders*, Institute of Antarctic and Southern Ocean Studies

- B-35 **The Determination of Pre-settlement and Pre-regulation Conditions of the Lower Murray River, Australia**  
*Jennie Fluin*, University of Adelaide
- B-36 **A Palaeolimnological Approach to Understanding Sediment and Nutrient Loads, Warren Reservoir, South Australia**  
*Ashley Natt*, University of Adelaide
- B-37 **Lagoonal Sediments in a Barrier Beach Complex - Recording Water Level Changes in Lake Athabasca, Canada**  
*Dörte Köster*, University of Waterloo
- B-38 **Identifying the Roles of Climate and River Discharge on Hydro-Ecological Dynamics of the Peace-Athabasca Delta: Insights Gained from a 1,500 Year Perspective**  
*Roland Hall*, University of Waterloo
- B-39 **2000-Year Hydrological Evolution of a Shallow lake in the Peace-Athabasca Delta Inferred from Stable Isotope Signatures in Aquatic Cellulose**  
*Yi Yi*, University of Waterloo
- B-40 **A Drowned Delta?: Is there Evidence of a Little Ice Age High-Stand on Lake Athabasca and Inundation of the Central Peace-Athabasca Delta in Sediments from Pond PAD 31?**  
*Johan Wiklund*, University of Waterloo
- B-41 **Peace River Paleohydrology from Oxbow Lake Sediments in the Peace-Athabasca Delta, Canada**  
*Suzanne Jarvis*, Wilfrid Laurier University