

***SYNTHESIZING INTERNATIONAL UNDERSTANDING OF CHANGES
IN THE ARCTIC HYDROLOGICAL SYSTEM
STOCKHOLM, SWEDEN
30 SEPTEMBER - 4 OCTOBER 2009***

WORKSHOP GOALS / STATEMENT OF PURPOSE

The specific objectives of this conference are:

- To synthesize advances in Arctic research that have taken flight over the last decade, specifically stimulated by considering the hydrologic cycle as an integrating force and fundamental building block uniting atmospheric, oceanic, cryospheric and terrestrial domains of the pan-Arctic system;
- To identify remaining gaps and uncertainties in process-level understanding that limits our knowledge of the Arctic as a system;
- To identify opportunities for new techniques and technologies to contribute to our understanding of Arctic system change;
- To stimulate a future vision for systems-level science of Arctic hydrology and affiliated energy and carbon cycles;
- To unite biogeophysical and human dimensions perspectives of the arctic freshwater system;
- To explore the reciprocal interactions between the Arctic and global Earth system; and
- To craft a scientific roadmap outlining the main research priorities, robust global and regional geo-information data products, improved models and effective data assimilation systems to forward the science of water in the Arctic. Days 4&5 are reserved for a writers' workshop for the Organizing Committee Members.

Contributions are sought for poster presentations on state-of-the-art concepts, research and operational developments in water cycle science, in particular related to climate and global change.

WORKSHOP VENUE

The Workshop will be held at the Royal Swedish Academy of Sciences or Kungliga Vetenskapsakademien ("KVA"). All plenary sessions will take place in the Beijer Auditorium and breakout sessions will be located in various rooms throughout the Academy.

AGENDA

DAY 1: WEDNESDAY – 30 SEPTEMBER 2009

8:30 – 9:00 am Conference Folder Pick-up

Stage-Setting and Morning Plenary Session

9:00 – 9:30 am Welcome, Introductions, Meeting Goals and Agenda
(Charles Vörösmarty, Larry Hinzman, Maribeth Murray, Jonathan Pundsack)

9:30 – 10:15 am Synthesis Visionary Keynote: Atmosphere (Jens Hesselbjerg Christensen / Bill Gutowski)

10:15 – 10:45 am Coffee Break

10:45 – 11:30 am Synthesis Visionary Keynote: Oceanography and Sea Ice (Wieslaw Maslowski / Bert Rudels)

- 11:30 – 12:00 pm Introduction to Afternoon Breakout Sessions (Charles Vörösmarty)
12:00 – 1:00 pm Lunch Synthesis Visionary Keynote: Broader Earth-System Perspectives – Human Systems (Amy Tidwell)

Afternoon Breakout Sessions

The full afternoon will be devoted to 2 breakout themes based on the morning visionary talk topics: atmosphere and oceanography & sea ice. There will be two breakout groups per topic, with ~10 participants for each of the 4 groups.

- 4:15 – 5:00 pm Plenary discussion on breakout sessions and goals for Day 2
5:00 pm Adjourn for the day

DAY 2: THURSDAY – 1 OCTOBER 2009

Morning Plenary Sessions

- 9:00 – 9:30 am Overview and Goals for Day 2 (Charles Vörösmarty)
9:30 – 10:15 am Synthesis Visionary Keynote: Terrestrial and Marine Ecosystems (Fred Wrona)
10:15 – 10:45 am Coffee Break
10:45 – 11:30 am Synthesis Visionary Keynote: Terrestrial Hydrology and Permafrost (Esko Kuusisto / Ming-ko Woo)
11:30 – 12:00 pm Introduction & Goals for Afternoon Breakout Sessions (Larry Hinzman)
12:00 – 1:00 pm Lunch Synthesis Visionary Keynote: Connections and Implications to the Earth System – Biology (Kyle McDonald)

Afternoon Breakout Sessions and Plenary

The full afternoon will be devoted to 2 breakout themes based on the morning visionary talk topics: terrestrial & marine ecosystems, and terrestrial hydrology & permafrost. There will be two breakout groups per topic, with ~10 participants for each of the 4 groups.

- 3:30 – 4:00 pm Plenary discussion on breakout sessions
4:00 – 4:45 pm Synthesis Visionary Keynote: Freshwater Budget – Atmosphere, Land, Ocean (Mark Serreze and Jim McClelland – both via teleconference connection)
4:45 – 5:00 pm Plenary discussion and goals for Day 3
5:00 pm Adjourn for the day

DAY 3: FRIDAY – 2 OCTOBER 2009

Morning Plenary Sessions

- 9:00 – 9:30 am Overview and Goals for Day 3 (Charles Vörösmarty)
9:30 – 10:15 am Synthesis Visionary Keynote: Ice Sheets and Glaciers (Tómas Jóhannesson)
10:15 – 10:45 am Coffee Break
10:45 – 11:30 am Synthesis Visionary Keynote: Socio-Economics (Peter Larsen)
11:30 – 12:00 pm Introduction & Goals for Afternoon Breakout Sessions (Jonathan Pundsack)

12:00 – 1:00 pm Lunch Synthesis Visionary Keynote: Connections and Implications to the Earth System - Broader Climate (Sten Bergström)

Afternoon Breakout Sessions

The afternoon will be devoted to 2 breakout themes based on the morning visionary talk topics: ice sheets & glaciers and socio-economics. There will be two breakout groups per topic, with ~10 participants for each of the 4 groups.

4:00 – 4:30 pm Plenary discussion on breakout sessions

4:30 – 5:00 pm Wrap-up and Next Steps

5:00 pm Adjourn

DAYS 4&5: SATURDAY/SUNDAY – 3-4 OCTOBER 2009

Writing Teams Meet (Members of the Conference Organizing Committee)