

PAGES2k-PMIP3: Comparing Data and Model Estimates of Hydroclimate Variability and Change over the Common Era

WEDNESDAY, JUNE 1ST

9:00-9:30 AM	ARRIVAL AND COFFEE	
9:30-10:30 AM	<i>Welcome, Agenda Review, and Introduction of Neighbor Historical review of data-model comparison workshops Discussion of planned accomplishments of the workshop - Planned Paper for Special Issue Updates on PAGES2k Hydroclimate efforts</i>	Jason Smerdon Juerg Luterbacher
10:30-10:45 AM	COFFEE BREAK	
10:45-11:45 AM	<i>Scoping Exercises Review of submitted questions on hydroclimate of the CE What are the challenges of hydroclimate data-model comparisons over the CE and what can we learn from these studies? What are we hoping to learn from this workshop?</i>	Jason Smerdon
11:45-12:45 PM	CATERED LUNCH	
	<i>Hydroclimate Proxies and Large-Scale Syntheses I</i>	Chair: J. Tierney
12:45-1:15 PM	<i>Hydroclimate over the Common Era from Sr/Ca and Oxygen Isotope Records of Corals</i>	Thomas Felis
1:15-1:45 PM	<i>Hydroclimate Signals in Tree-Ring Chronologies Across Time and Space</i>	Kevin Anchukaitis
1:45-2:15 PM	<i>Interpreting Past Hydroclimate Variability from Sedimentary Records: Challenges and Considerations</i>	Jessica Tierney
2:15-2:45 PM	<i>Australasian Monsoon Variability During the Common Era Inferred from Indo-Pacific Speleothem Records</i>	Michael Griffiths
2:45-3:00 PM	COFFEE BREAK	
	<i>Hydro Proxies and Large-Scale Synth. II</i>	Chair: J. Luterbacher
3:00-3:30 PM	<i>Iso2k: A Community-Sourced Global Database of Paleo- Water Isotopes from the Past Two Millennia</i>	Konecky/Partin

WORKSHOP AGENDA – June 1st – 3rd, 2016

3:30-4:00 PM	<i>An Update on the Arctic 2k Hydroclimate Efforts</i>	Hans Linderholm
4:00-4:30 PM	<i>The Role of Tree Ring Drought Atlases in Climate Change Research: State of the Art and Future Developments</i>	Edward Cook
4:30-5:00 PM	<i>Warm-Season Precipitation Reconstruction over Asia in the Past Half Millennium: Tibetan Plateau</i>	Huan Zhang
5:00-5:45 PM	Review hydroclimate proxies <i>What are the challenges/limitations of hydroclimate proxies and how might they be overcome?</i> <i>Where do we have good sampling and where are we missing opportunities?</i> <i>What are the best products and syntheses for model comparisons?</i>	Chairs: Jessica Tierney Juerg Luterbacher
5:45-7:30 PM	CATERED BBQ AT LAMONT	

THURSDAY, JUNE 2ND

9:00-9:30 AM	ARRIVAL AND COFFEE	
	Model Simulations of the Common Era I	Chair: Steven Phipps
9:30-10:00 AM	<i>Last Millennium Simulations at GISS Including Water Isotopes</i>	Schmidt/LeGrande
10:00-10:30 AM	<i>Simulations of the Common Era in PMIP4/CMIP6: Overview and Specific Issues for Studies of Hydroclimate</i>	Johann Jungclaus
10:30-10:45 AM	COFFEE BREAK	
	Model Simulations of the Common Era II	Chair: Steven Phipps
10:45-11:15 AM	<i>The Global Monsoon Response to Volcanic Eruptions in the CMIP5 past1000 Simulations and Model Simulations of FGOALS</i>	Wenmin Man
11:15-11:45 AM	<i>An Ensemble of Simulations for the Last Millennium with CESM</i>	Bette Otto-Bliesner
11:45-12:15 PM	<i>Hydroclimate Responses to Volcanic Eruptions in CESM</i>	Samantha Stevenson
12:15-1:15 PM	CATERED LUNCH	

WORKSHOP AGENDA – June 1st – 3rd, 2016

Data-Model Comparisons I

Chair: K. Anchukaitis

- 1:15-1:45 PM *What We Talk About When We Talk About Hydroclimate: Challenges in Model/Data Comparisons* Ben Cook
- 1:45-2:15 PM *Droughts in the Last Two Millennia: Challenges in its Definition and Connection to Modes of Variability* Raible/Lehner
- 2:15-2:45 PM *Challenges and Opportunities for Data-Model Comparisons in Australia* Ailie Gallant
- 2:45-3:15 PM *Paleoclimate Model-Data Comparisons of Hydroclimate over North America* Sloan Coats

3:15-3:30 PM

COFFEE BREAK

Data-Model Comparisons II

Chair: K. Anchukaitis

- 3:30-4:00 PM *Hydroclimate Changes in the Tropical Pacific over the Last Millennium: Data-Model Comparisons and Possible Mechanisms* Alyssa Atwood
- 4:00-4:30 PM *A Robust Null Hypothesis for the Role of the Tropical Pacific in Driving Megadrought in Western North America* Toby Ault

4:30-5:30 PM

Review of Modeling and Data-Model Comparison Efforts

**Chairs:
Steven Phipps
Kevin Anchukaitis**

What are the challenges/limitations of climate models and how might they be overcome?

What models and simulations are available and how will the landscape change with CMIP6/PMIP4 and in the interim?

Can we define “best practices” for comparison methods? How should model and proxy uncertainties impact comparisons?

How does this inform us of the future?

7:00 PM

DINNER AT IL FRESCO

FRIDAY, JUNE 3RD

9:00-9:30 AM

ARRIVAL AND COFFEE

Proxy System Modeling and Proxy Comparisons

Chair: Kim Cobb

9:30-10:00 AM

Introduction to Proxy System Modeling

Mike Evans

10:00-10:30 AM

Model-Data Comparisons: Understanding Water Isotopes in Speleothems

Sophie Lewis

10:30-11:00 AM

An Update on Proxy System Modeling and Model-Data Comparison: Progress, Challenges, and Applications

Sylvia Dee

11:00-11:15 AM

COFFEE BREAK

Data-Model Comparisons with Data Assimilation

Chair: Toby Ault

11:15-11:45 PM

Assimilation of PAGES2k Continental Temperature Reconstructions using GCM Ensemble Member Selection

Martin Widmann

11:45-12:15 PM

Hydroclimate Reconstructions Using Data Assimilation

Nathan Steiger

12:15-1:15 PM

CATERED LUNCH

1:15-1:45 PM

Review of Proxy Modeling and Data Assimilation

**Chairs:
Kim Cobb
Toby Ault**

What is the current collection of PSMs and what are the challenges of incorporating them into reconstructions?

What are the challenges of using data assimilation for hydroclimate and how might they be addressed?

1:45-2:30 PM

Discussions and Group Breakout Sessions

2:30-3:00 PM

Reports From Breakout Groups

3:00-3:15 PM

COFFEE BREAK

3:15-4:15 PM

Summary

*Review and refinement of workshop questions
Plans and assignments for special issue contribution*

Jason Smerdon
Juerg Luterbacher
Steven Phipps

4:30-7:00 PM

Paleoclimate and Modeling Outreach Event

Speakers: Gavin Schmidt and Kim Cobb

Exchange Exercise with Workshop Attendees and Teachers

RECEPTION AND MIXER