



[pages-igbp.org/workinggroups/2k-network](http://pages-igbp.org/workinggroups/2k-network)

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## Attention all 2k Network Participants:

**Contact your regional group leader:** The Phase 2 project wrap-up special issue of *Climate of the Past* is taking shape. Articles are now being planned.

**Comment on the proxy database versioning scheme:** A versioning scheme has been proposed to track changes as they are made to successive iterations of PAGES datasets. For further details, see p. 3.

**Welcome the new PAGES 2k Network Coordinators:** Nerilie Abram (Australian National University) and Raphael Neukom (University of Bern, Switzerland)

This circular is sent to all 2k mailing lists subscribers. Feel free to forward it to interested colleagues with a link to the [PAGES 2k list](#) where they can sign up to receive future circulars. Also let Lucien know if you wish to be removed from the 2k mailing list. All previous circulars are available online on the [PAGES 2k Network](#) website.

Best wishes from the 2k-coordinators,

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### 1 – 2<sup>ND</sup> 2K NETWORK-WIDE TELECONFERENCE 14 SEP 2015

Approximately forty 2k Network members logged onto the teleconference. Representatives from nearly every regional and trans-regional 2k group gave brief statements about their group's plans for the wrap-up of phase 2 by end of next year. Darrell Kaufman, who led the discussion introduced the status of the 2k project, encouraged participants to read the [website of PAGES2k](#) and the circulars to keep track of the developments. The meeting had a strong focus on the *Climate of the Past* (CP) special issue (see next section). The 90 minutes-long recording of the meeting is available [here](#).

### 2 – SPECIAL 2K ISSUE OF *CLIMATE OF THE PAST*

**A major product for the phase 2 will be a special issue in *Climate of the Past*, with submission of papers beginning in July 2016.** Preparing this special issue is now a priority. In particular, a preliminary table of contents is needed, keeping in mind that the deadline is relatively soon. Consequently, all planned papers should soon have a lead author identified and the data needed should be (nearly) available. Hydroclimate is a priority for phase 2, so each group is encouraged to submit papers focusing on this topic. Each group is intended to contribute to 1 to 3 papers to the special issue. Once the regional group papers come into focus, we can plan for high-level syntheses of the new findings for a broader audience.

Contributions to this special issue are welcome! Contact your regional or trans-regional group leader if you have suggestions for articles to be included.

If you are interested in acting as one of the **guest editors** for this issue, please contact one of the [2k coordinators](#).

#### **Preliminary contents of the Special Issue**

**Africa** has not currently identified any specific papers for the CP special issue but will discuss potential options soon. Contact: [Brian Chase](#) and [David Nash](#)

**Antarctica** has plans for two papers, one focusing on isotopic records, which are related to temperature and other climatic variables, and one on the snow accumulation rate. Contact: [Barbara Stenni](#)

**Arctic** has plans for three contributions: a review of hydroclimate proxies, and spatial circumpolar reconstructions of temperature and hydroclimate. If the data are not sufficient for the hydroclimate reconstruction, the focus will be on the North Atlantic/European sector. Contact: [Anne Hormes](#) and [Jostein Bakke](#)

**Asia** is planning two papers on temperature and precipitation reconstructions. Contact: [Juerg Luterbacher](#) and [Zhixin Hao](#)

**Australasia** plans are not fixed. Two papers on hydroclimate and circulation are proposed but the plans will be refined during the next meeting of the group in New Zealand next month (see meeting details below). Contact: [Joelle Gergis](#)

**Euro-Med** contribution is not yet clear. The group will evaluate how some of the present activities could be finalized for the special issue. Contact: [Ulf Büntgen](#)

**North America**, two papers should be ready, one on temperature reconstruction based on different archives, the second comparing drought and pluvial intervals from different archives. Contact: [Nick McKay](#)

**Ocean2K** will meet in early October. Five themes will be discussed and will be evaluated to see if they could fit to the special issue. The ocean-continent interaction is an interesting topic to put forward in the future and should stimulate interactions between the groups. Contact: [Belen Martrat](#)

**LOTRED South America** is planning to have a paper on high-resolution reconstruction of precipitation, a low-resolution reconstruction based on pollen, and a paper focusing on Central America. Contact: [Heitor Evangelista](#)

**Iso2k** started a few months ago. It is expected to have a database as the first product, submitted to *Scientific Data* in January 2016. For the special issue, the first paper will be focused on the global and regional trends in isotopes records and the potential origin (temperature, precipitation) of those trends. A salinity reconstruction is also planned. Contact: [Jud Partin](#) and [Bronwen Konecky](#)

### 3 – CALL FOR NEW TRANS-REGIONAL PROJECTS

The 2k project has grown into a large global Network involving many experts and providing collaborative and data resources, and offers many opportunities for new research projects. If you have a project idea to contribute to the 2k synthesis special issue, or on a different timeline, please contact one of the [2k coordinators](#).

See all the trans-regional projects here: <http://www.pages-igbp.org/ini/wg/2k-network/trans-regional-projects>

#### 4 – NEW 2K TRANS-REGIONAL PROJECTS

##### **Global Temperature Reconstruction Method Comparisons**

This project will produce global gridded temperature reconstructions using a suite of climate field reconstruction (CFR) methods applied to the new PAGES 2k temperature database. The aim is to assess how the results of the various methods agree and disagree (such as low-frequency amplitudes vs. decadal-scale fluctuations, timing of extremes, spectral slopes, spatio-temporal distribution of skill and uncertainties), to better constrain what type of analysis CRF products are best suitable for. If you are interested to contribute please write to the contact address. Contact: Raphael Neukom ([raphael.neukom@giub.unibe.ch](mailto:raphael.neukom@giub.unibe.ch))

##### **Global 2k annual mean temperature reconstruction using GraphEM**

This project focuses on the global mean-annual temperature field using the Graphical Expectation-Maximization (GraphEM) algorithm. The methodology features improved spatial skill, validated uncertainty quantification, and will be used to perform detection & attribution of climate change in PMIP3 past1000 simulations. It will focus on the high-resolution (<5y) records in the new PAGES 2k temperature database. Contact: Julien Emile-Geay ([julieneg@usc.edu](mailto:julieneg@usc.edu))

##### **AMOC and atmospheric circulation pattern estimations**

Marine paleoclimate data described in the Ocean2K paleodata metadatabase will be combined with CMIP5 simulations to reconstruct ocean circulation patterns using the proxy surrogate reconstruction algorithm. We will also evaluate the precision and uncertainty of the results, and use pseudoproxy experiments to identify regions for which additional data might most improve the results. Contact: [Casey Saenger](mailto:csaenger@uw.edu) Contact: ([csaenger@uw.edu](mailto:csaenger@uw.edu))

#### 5 – DATABASE VERSIONING SCHEME

Many PAGES working groups generate large data compilations, which continually evolve as new data become available or are revised, and as new procedures are used for data processing. Consequently, a community-accepted versioning scheme is needed to increase transparency in publications, and to facilitate replication of results derived from these evolving products. A systematic versioning scheme tracks changes that are made in future iterations of a dataset, assigning a unique identifier to each iteration.

The provisional versioning scheme, currently under discussion in “*Climate of the Past – Discussions*” ([McKay and Emile-Geay 2015](#)) is as follows: the version number for a data compilation is in the form C1.C2.C3, where C1 is an integer associated with a publication (e.g. [PAGES 2k Consortium 2013](#)); every new publication that makes and describes substantial changes to a database would increment the first number by 1. C2 is a counter updated every time the set of sites included in the database changes (every time a record is added or removed). C3 is a counter updated every time a modification is made to the data or metadata in an individual record.

Do you think this versioning scheme is appropriate? Please send your comments on this proposed versioning scheme to [Nick McKay](mailto:Nick.McKay@nau.edu) ([Nick.McKay@nau.edu](mailto:Nick.McKay@nau.edu))

#### 6 – NEW 2K PRODUCTS

McGregor HV, Evans MN, Goosse H, Leduc G, Martrat B, Addison JA, Mortyn PG, Oppo DW, Seidenkrantz M-S, Sicre M-A, Phipps SJ, Selvaraj K, Thirumalai K, Filipsson HL & Ersek V (2015) *Robust global ocean cooling trend for the pre-industrial Common Era*, Nature Geoscience 8(9): 671-677, DOI:10.1038/ngeo2510

Wang J, Emile-Geay J, Guillot D, McKay NP & Rajaratnam B (2015) *Fragility of reconstructed temperature patterns over the Common Era: Implications for model evaluation*, Geophysical Research Letters online, DOI: 10.1002/2015GL065265

Zanchettin D, Bothe O, Lehner F, Ortega P, Raible CC & Swingedouw D (2015) *Reconciling reconstructed and simulated features of the winter Pacific/North American pattern in the early 19th century*, Climate of the Past 11: 939-958, DOI:10.5194/cp-11-939-2015

To view all 2k products and upcoming 2k events, visit the respective 2k website: [www.pages.unibe.ch/workinggroups/2k-network](http://www.pages.unibe.ch/workinggroups/2k-network)

Please let us know if you see any gaps or errors, and send us any meeting documents (e.g. presentations and posters), to post on the 2k web page to create a complete online archive of an event or activity. See an example [here](#).

Don't forget to acknowledge PAGES or the 2k Network (e.g. "the ideas/data in this paper were assembled/developed/discussed by the <name> PAGES 2k working group") in publications that draw ideas arising from PAGES-funded meetings. Only articles with an acknowledgement are considered PAGES products.

## **7 – UPCOMING PAGES 2K MEETINGS**

### **6-8 October 2015, Barcelona, Spain**

1<sup>st</sup> Ocean2k Workshop

<http://www.pages.unibe.ch/calendar/2014/127-pages/1481-1st-ocean2k-workshop>

### **12-15 October 2015, Fort Collins, USA**

Nam2k working group meeting

<http://www.pages.unibe.ch/calendar/all-events/127-pages/1531-powell-center-pages-nam2k>

### **27-29 October 2015, Auckland, New Zealand**

Australasia2k Workshop

<http://www.pages.unibe.ch/calendar/127-pages/1490-4th-aus2k-wshop>

### **14-18 December 2015, San Francisco, USA**

AGU Fall Meeting, 2k session "Climate of the Common Era" (8412)

<http://www.pages.unibe.ch/calendar/2015/127-pages/1455-agu-fall-mtng-2015>

### **17-22 April 2016, Vienna, Austria**

EGU General Assembly, 2k session "Studying the climate of the last two millennia"

<http://www.pages-igbp.org/calendar/all-events/127-pages/1511-egu-2016>

More upcoming meetings can be found at: <http://www.pages.unibe.ch/calendar>

## **8 - MEETING SUPPORT**

Regional 2k groups seeking support for meetings can submit a proposal to PAGES (visit [MyPAGES>Meeting Support](#)). **The next deadline for proposal submission is 15 November 2015.**