PAGES2K Water Isotope Database Teleconference
AGENDA

I. Goals:

1. Discuss and refine goals of database
    a. Overall vision: Anything to add/modify from stated goals in Trans-Regional Project description?
    b. Applications: Anything to add/modify?
2. Discuss various projects with synergistic activities (e.g. Konecky, Anderson, Masson-Delmotte, Yoshimura)
    a. Goals/timelines of those projects?
    b. Lessons learned that are applicable to this project?
    c. Ways to piggyback on data collection efforts?
    d. Clarification & discussion (database is not meant to usurp/replace other efforts)
3. Determine preliminary list of metadata fields & data selection criteria
    a. Discuss examples from temperature database (**see Page 3**)
    b. Discuss PAGES2K data selection criteria (**see** http://www.pages-igbp.org/download/docs/working_groups/2k_network/pages2k-proxy-selection-criteria-Aug2014.pdf)—need to modify?
4. Discuss leadership
    a. Flexible and can evolve—but for now, a few people (~3?) who are interested in being co-leaders can step up
    b. Larger core group (~10 people) will still be involved in an "expert guidance" capacity and will be actively called upon to give guidance on database goals, applications, metadata, etc.
    c. If there is a desire for this, anyone else in the community who is interested can be kept informed of developments as they come (perhaps a trans-regional project mailing list?).
5. Discuss next steps
    a. Strategy for data collection?
        i. Includes working with regional managers
        ii. Includes working with "synergistic project" contacts

II. Deliverables by end of meeting/post-meeting wrap-up:

1. Refined "Goals" project description document
2. Preliminary list of metadata fields
3. Initial strategy for data collection
4. Preliminary leadership team and a rough sense of responsibilities
5. Identified gaps in expertise to send out to larger 2K community

III. Preliminary list of participants

Name	***Main proxy specialty***	***Main regional specialty***	**Email**
Bronwen Konecky (U. Colorado/Oregon State University, USA)	Sedimentary biomarkers (some speleothems, corals); isotope-enabled modeling	Tropics (esp. Africa, SE Asia/Indonesia)	bronwen.konecky@colorado.edu
Shreyas Managave (Pondicherry U., India, and Brown U., USA)	Tree rings, speleothems	Asia (India)	shreyasman@gmail.com
Kei Yoshimura (U. Tokyo, Japan)	Isotope-enabled modeling & data assimilation	Asia (Japan)	keiyoshi08@gmail.com
Valérie Masson-Delmotte (IPSL/LSCE, France)	Ice cores, isotope-enabled modeling	Greenland/Arctic, Antarctica	valerie.masson@lsce.ipsl.fr
Dave Anderson (NOAA, USA)	Data assimilation		david.m.anderson@noaa.gov
Nick McKay (Northern Arizona U., USA)	Data synthesis & databasing	North America	Nicholas.McKay@nau.edu
Darrell Kaufman (Northern Arizona U., USA)	Lake sediments & data synthesis	Arctic & North America	darrell.kaufman@nau.edu
Julien Emile-Geay (U. Southern California, USA)	Corals, isotope-enabled modeling, data synthesis	Indo-Pacific	julieneg@usc.edu
Jud Partin (U. Texas-Austin, USA)	Speleothems	SE Asia	judpartin@gmail.com
Lucien von Gunten (PAGES)			lucien.vongunten@pages.unibe.ch

IV. Selected metadata fields from temperature database (from Nick McKay) and "first pass" suggestions of how to modify for Water Isotope Database:

yellow highlight = potential addition/modification for water isotopes

Base metadata

paleoArchiveName (name of the paleoArchive; *example: RAPiD-12-1K.Thornalley.2009)*

archiveType (*example: marine sediments)*

investigator (*example: David Thornalley)*

Geospatial metadata

Latitude (both value (e.g., mean, max, min) and units)

Longitude (both value (e.g., mean, max, min) and units)

siteName (example: *RAPiD-12-1K)*

Publication metadata

DOI

pubString (short text citation; *example: Thornalley et al., 2009)*

Paleo Data table

depth

age/year

climate-sensitive parameter (example: SST)

Description (*example: sea-surface temperature inferred from Mg/Ca ratios)*

Units (*example: deg C)*

Climate Interpretation: Five parameters that allow for a concise description of how the climate-sensitive parameter is related to climate. This is required for at least one column in the PAGES 2k database, but may not be appropriate for all paleoArchives.

Isotope system: which stable isotope ratio is recorded (example: $\delta^{18}O$)

Material: material on which the isotopic measurement is made (example: cave calcite)

Parameter: what aspect(s) of climate are recorded in this archive; *example: temperature (example: precipitation $\delta^{18}O$, dripwater $\delta^{18}O$)*

Parameter Detail: detail on "climateInterpretationParameter" *example: sea surface (example: cave calcite)*

Site Information: More details on archive and site (example: Open/closed lake)

Seasonality (e*xample: May, June, July)*

Lag time: Lag time or integration time between parameter isotope ratio and material isotope ratio (example: ~2-6 months)

Lag time description: What processes dictate lag time (example: groundwater mixing and residence time connecting precipitation $\delta^{18}O$ to dripwater $\delta^{18}O$; leaf wax residence time in soils)

Isotope interpretation: Authors' interpretation of main controls on isotope ratios (examples: amount effect, summer temperature)

Climate interpretation: Authors' climate interpretation (example: summer monsoon intensity)

Interpretation Direction: positive or negative relation to the inferred parameter

Basis: quote from paper or other argument that justifies the interpretation *example: regional core top calibration equation (Bakker et al., 2005)*,

Modern calibration: Extent of modern $\delta^{18}O$ or $\delta^{18}O$ observations to support interpretation (examples: 7 years of daily precipitation samples, 9 months of weekly seawater samples)

Chron Data Table

Depth (depth of sample/measurement)

14Cage

14CAgeUncertainty

datedMaterial: what was dated? (e.g., bulk sediment, terrestrial macrofossil, etc)