

Workshop Report

'Cross-Community Workshop on past flood variability'

June 27-30, 2016 – Grenoble, France

Plan of the workshop report

1. General comment
2. Database
3. Publications
4. Upcoming projects
5. Next meeting of the FWG

1. General comment

The workshop was successful according to the **very positive feedback** of 47 participants from 16 different countries. A total of 24 talks and 11 posters have been presented. In addition **numerous working perspectives** (cf. database, publications and upcoming projects) were developed and discussed.

One major comment from the workshop participants is that this working group is the first place that gathers all communities working on past floods. This offers a **unique consortium of experts in the field of 'flood hydrology of the past'**, making the working group promising to move a step forward in this field.

Two points that still require an effort in the organization of such events are the participation of **more female scientists** and **more scientists from Africa, South America and Australia**.

Note that all presentations will be available soon on the website of the FWG (under agreement of the speakers): [here](#).

2. Database

Following sub-group and plenary discussions, all participants agreed:

- to **create a common and homogenized database** compiling all past flood information, i.e. from all (historical and natural) archives,
- to **start the database creation by sub-groups**, i.e. archive per archive. The work of the sub-groups will be coordinated to avoid archive-specific databases as the final aim is to make all the data comparable,
- to start in a simple and efficient way, **only metadata or very simple data will be collected** (e.g. location, timing and magnitude of past floods).

The final format (e.g. LiPD - <http://linked.earth/>, etc.) and the site for the long-term storage will be defined when the preliminary database will be created.

Steps and deadlines:

1. Identification of criteria (for selection of records) and database structure: **October 1st, 2016**
2. First collection of (meta)data: **January 1st, 2017**
3. First database delivered / presented at the OSM in Zaragoza: **May 9-13, 2017**

The following people proposed their involvement to work on the database:

Main coordinator: Michael Kahle, Pierre Francus & Jean-Philippe Jenny

Sub-group coordinators:

Historical archives: Neil Macdonald, Oliver Wetter & David Pino
Tree rings: Scott St George
Fluvial sediments: Willem Toonen, Samuel Munoz & Tao Liu
Lake/fjord sediments: Pierre Sabatier, Pablo Corella & Markus Czymzik
Speleothems: Rhawn Denniston & Marc Lüscher

3. Publications

Different possibilities of papers were discussed according to the goals we would like to achieve, i.e. publicizing the FWG to other communities like modelers, hydrologists, etc. and/or to stakeholders, engineers and risk managers.

1. **White paper** for publication in EOS or Hydrological Processes

This short paper aims at publicizing the FWG to a broad audience. Tina Swierczynski takes the lead for a first draft (August 1st), supported by David Pino and Monica Ionita. A first version for submission is planned for September 15th.

2. **Short meeting news** for publication in different blogs

A workshop report is in preparation for PAGES. This report could then be reworked for publication of the concepts and goals of the FWG as 'short meeting news' in different blogs (e.g. Future Earth, Global Flood Partnership, etc.).

3. **Review paper**

The idea of a review paper that could be used as a 'visiting card' for the FWG to reach other communities got positive feedback. However, it appeared that this idea still needs to be better defined (i.e. aim, structure, contributions, deadlines and journal for publication). The steering committee will work in the next weeks to precise these points.

4. Upcoming projects within the FWG umbrella

Three projects came up from discussions between participants during the workshop.

1. **Methodological developments for multi-archive analysis of past flood variability**

Combining datasets from different archives is still challenging. This project would contribute to the development of a methodological approach to uniform the datasets, making data acquired from different archives comparable. A concept note outlining this project should be proposed to FWG members in October.

2. List of relevant publications on flood reconstruction and analysis

An effort should be undertaken to list all publications related to flood reconstructions and analysis. See for instance what is done in the PAGES Varves WG: <http://pastglobalchanges.org/ini/end-aff/varves-wg/varve-related-publications>. This list will serve as a basis to identify all available / published data that could be collected for the database. This list may also highlight methodological papers on flood reconstructions, statistical analysis of flood frequency/magnitude, etc.

3. Review publication on flood reconstructions from lake sediments

Over the last years, many approaches have been developed to reconstruct the past flood variability from lake sediments. This project would aim at gathering 'key researchers' of this topic to review these approaches and propose common 'guidelines' for future studies in this field. A workshop could be organized within the next year to perform this project.

5. Next meetings of the FWG

Lothar Schulte introduced the **PAGES 5th Open Science Meeting** that will be held at Zaragoza (Spain), May 9-13, 2017. Lothar and many other FWG members organize the FWG-sponsored **session 'Multidisciplinary reconstruction of paleofloods'**. Abstract submissions should open soon (<http://www.pages-osm.org/>). In addition, we would like to take advantage of this PAGES event that most of the FWG members may attend to organize the **next meeting of the FWG**.

Beside this on-site event, online meetings will be organized this autumn to progress on the different products and projects (i.e. publications, database and projects).