

## ADAPTATION AND RESILIENCE TO DROUGHTS: HISTORICAL PERSPECTIVES IN EUROPE AND BEYOND

University of Strasbourg (France), June 1-2, 2017

### DAY 1 – THURSDAY, 1<sup>ST</sup> JUNE 2017

**08:30** Registration and Coffee

**09:00** Welcome

*Catherine Florentz* (First Vice-President and Vice-President for Research and Education, University of Strasbourg)

*Dominique Badariotti* (Director of LIVE, CNRS, University of Strasbourg)

**09:15** Opening

*Carmen de Jong* (University of Strasbourg, France)

#### Session 1: Narrative Sources for Reconstructing Droughts (Chair: Emmanuel Garnier, tbc)

**09:30** Keynote 1: Outstanding droughts in the past – nightmare visions of Global Warming

*Christian Pfister* (University of Bern, Switzerland)

**10:00** Famine and Drought in Jeremiah 14\* and Joel 1-2\* and their reception in 17th century Europe

*Sara Kipfer* (University of Bern, Switzerland)

**10:20** For a history of drought phenomena in Calabria between the Middle Ages and the modern age: the contribution of ecclesiastical and hagiographical sources

*Massimo Bidotti* (University of Calabria, Italy)

**10:40** Drought in Late Medieval England. Its impact on agriculture and its role in the formation of major plague waves

*Kathleen Pribyl* (University of East Anglia, United Kingdom)

**11:00 – 11:20** Coffee Break

#### Session 2: Narrative Sources for Reconstructing Droughts (Chair: Sara Kipfer)

**11:20** 1473: Three Seasons of Heat and Drought in Europe

*Chantal Camenisch* (University of Bern, Switzerland)

**11:40** Droughts in the Czech Lands from AD 1501

*Rudolf Brázdil* (Czech Academy of Sciences and Masaryk University, Czech Republic)

*Miroslav Trnka* (Czech Academy of Sciences and Mendel University, Czech Republic)

*Petr Dobrovolný* (Czech Academy of Sciences and Masaryk University, Czech Republic)

*Ladislava Řezníčková* (Czech Academy of Sciences and Masaryk University, Czech Republic)

*Oldřich Kotyza* (Regional Museum, Litoměřice, Czech Republic)

*Hubert Valášek* (Masaryk University, Czech Republic)

**12:00 “The season has been an unusually dry one”: perspectives on 19<sup>th</sup> century drought in southern Africa in different historical source types**

*David J. Nash* (University of Brighton, United Kingdom)

*Georgina H. Endfield* (University of Liverpool, United Kingdom)

*Kathleen Pribyl* (University of Brighton, United Kingdom)

*Jørgen Klein* (Hedmark University College, Norway)

*Stefan W. Grab* (University of the Witwatersrand, South Africa)

*George C.D. Adamson* (King's College London, United Kingdom)

**12:20 18<sup>th</sup> century droughts in Portugal**

*Marcelo Fragoso* (University of Lisboa, Portugal)

*Maria de Garcia Dias Carraça* (University of Lisboa and University of Évora, Portugal)

*João Alcoforado* (University of Lisboa, Portugal)

**12:40 The weather behind the words. New methodologies for integrated analysis of drought over the long run**

*Salvador Gil-Guirado* (University of Murcia, Spain)

*Jose Antonio Espín-Sanchez* (Yale University, USA)

*Mariano Barriendos* (Autonomous University of Barcelona, Spain)

**13:00 – 14:00 Lunch Break**

**Session 3: Narrative Sources for Reconstructing Droughts (Chair: Kathleen Pribyl)**

**14:00 Low waters, a complex indicator for climate history. Material and methods for evaluating the man-induced component of water shortages (late 18<sup>th</sup> - early 20<sup>th</sup> century)**

*Nicolas Jacob-Rousseau* (University of Lyon 2, France)

*Oldrich Navratil* (University of Lyon 2, France)

*Éric Sauquet* (IRSTEA, Villeurbanne, France)

*Jean-Philippe Vidal* (IRSTEA, Villeurbanne, France)

**14:20 Old and new drought classification methodologies in the Iberian Peninsula (16<sup>th</sup>-20<sup>th</sup> centuries)**

*Mariano Barriendos* (University of Barcelona, Spain)

*Salvador Gil Guirado* (University of Murcia, Spain)

**14:40 Comparative views on the North American Dust Bowl during the 1930's**

*Martine Tabeaud* (University of Paris Panthéon Sorbonne, France)

*Alexis Metzger* (University of Strasbourg, France)

**15:00 Droughts in historical times in Polish territory**

*Danuta Limanowka* (Państwowy Instytut Badawczy, Poland)

**15:20 - 15:50 Coffee break**

**Session 4: Past Variability of Droughts (Chair: Chantal Camenisch)**

- 15:50 Keynote 2: “DRleR - Drought reconstructions, impacts, processes and resilience since 1500 for the German Southwest**  
*Rüdiger Glaser (University of Freiburg, Germany)*  
*Iso Himmelsbach (University of Freiburg, Germany)*  
*Annette Bösmeier (University of Freiburg, Germany)*
- 16:20 Meteorological approach for some warm and dry years of the first half of the 19<sup>th</sup> century**  
*Nicolas Jacob-Rousseau (University of Lyon 2, France)*
- 16:40 Short-term fluctuations of periods with consecutive dry days in the context of centennial variability in the Eastern Carpathians foreland**  
*Dariia Kholiavchuk (Yurii Fedkovych Chernivtsi National University, Ukraine)*
- 17:00 Ensemble reconstruction of spatio-temporal extreme low-flow events in France since 1871**  
*Laurie Caillouet (IRSTEA, Villeurbanne, France)*  
*Jean-Philippe Vidal (IRSTEA, Villeurbanne, France)*  
*Eric Sauquet (IRSTEA, Villeurbanne, France)*  
*Alexandre Devers (IRSTEA, Villeurbanne, France )*  
*Benjamin Graff (Compagnie Nationale du Rhône (CNR), Lyon, France).*

**17:20-17:45 Discussion**

**19:00 Guided Tour through City of Strasbourg**

**20:00 Joint Dinner in the historic centre of Strasbourg (at own costs)**

**Day 2 – FRIDAY 2<sup>nd</sup> June 2017**

**08:30 - 9:00 Coffee**

**Session 5: Past Variability of Droughts. Special Session (Great East Region, France)**

**(Chair: Nicolas Jacob-Rousseau, tbc)**

- 9:00** Variability and spatial extent of drought(s) at the beginning of Antiquity in North-East France. Contribution of soil archives to scarce narrative data.  
*Anne Gebhardt* (University of Strasbourg, INRAP Grand Est, France)  
*Vincent Robin* (University of Lorraine, France)
- 9:20** Droughts and low flows in the Mosel river catchment since the middle of the 19th century  
*Claire Delus* (University of Lorraine, France)  
*Didier François* (University of Lorraine, France)
- 9:40** Historic droughts in the Upper Rhine Valley (16th-20th centuries)  
*Emmanuel Garnier* (University of Franche-Comté, France)
- 10:00** “Not even a frog would be able to find a puddle of water” - frequency and magnitude of historic droughts in Alsace  
*Alexis Metzger* (University of Strasbourg, France)  
*Carmen de Jong* (University of Strasbourg, France)

**10:20 – 10:40 Coffee Break**

**Session 6: Adaptation and resilience to droughts (Chair: Maria de Garcia Dias Carraça)**

- 10:40** Keynote 3: Vulnerability and resilience to droughts from narrative sources (12th – 14th centuries)  
*Thomas Labbé* (University of Burgundy, France)
- 11:10** Droughts and societies in Western France during the Little Ice Age (XIV<sup>th</sup>-XVIII<sup>th</sup> centuries)  
*Emmanuelle Athimon* (University of Nantes, France)
- 11:30** Three centuries of vulnerability and adaptation to drought in the Zambezi-Save area of southern Africa, 1500-1830  
*Matthew Hannaford* (Utrecht University, The Netherlands)
- 11:50** Long-term changes in water governance regimes and drought adaptation. A case study in the Metropolitan Region of Barcelona, NE Spain (1600-1870s)  
*Mar Grau-Satorras* (Autonomous University of Barcelona (UAB), Spain)  
*Iago Otero* (Autonomous University of Barcelona (UAB), Spain)  
*Erik Gómez-Baggethun* (Autonomous University of Barcelona (UAB), Spain)  
*Victoria Reyes-García* (Autonomous University of Barcelona (UAB), Spain)
- 12:10** Past drought management strategies of Mediterranean societies: the case of Marseille and the Lower Provence at the end of the Little Ice Age (1700-1850, Southeastern France)  
*Nicolas Maughan* (University of Aix-Marseille, France)  
*Georges Pichard* (University of Aix-Marseille, France)

**12:30 Analysis of historic droughts in the UK: a systems-based study of drivers, impacts and their interactions**

*Jamie Hannaford* (Centre for Ecology and Hydrology, Wallingford, United Kingdom)

*John Bloomfield* (British Geological Survey, Wallingford, United Kingdom)

*Ian Holman* (Cranfield University, United Kingdom)

*Bettina Lange* (University of Oxford, United Kingdom)

*Ralph Ledbetter* (HR Wallingford, United Kingdom)

*Mark McCarthy and Steven Wade* (Met Office, Exeter, United Kingdom)

*Tony McEnery* (University of Lancaster, United Kingdom)

*Rebecca Pearce* (University of Exeter, United Kingdom) the Historic Droughts Project Team

**13:00 - 14:00 Lunch Break**

**Session 7: Adaptation and resilience to droughts (Chair: Alexis Metzger)**

**14:00 'Hungry Franks on dry land'? An interdisciplinary approach to the famine of 793 CE**

*Stefan Ebert* (Technical University of Darmstadt, Germany)

**14:20 Droughts as a Trigger of Subsequent Locust Invasions? The Cases of the 1470s and 1540s**

*Christian Rohr* (University of Bern, Switzerland)

**14:40 Knowledge and characterization of droughts in the West of France**

*Jérémy Desarthe* (University of Caen – Normandie, France)

**15:00 The 1904 Great Drought Episode in Austrian Galicia: adaptation and resilience in a poor Central European rural society**

*Jawad Daheur* (University of Strasbourg, France)

**15:20 The Impact of the West European Drought 1975-6**

*John Martin* (De Montfort University Leicester, United Kingdom)

**15:40 The Memory of Droughts – From Written Sources into Tambora's Digital Sustainability. The Near and Middle East Case Study**

*Michael Kahle* (University of Freiburg, Germany)

*Rüdiger Glaser* (University of Freiburg, Germany)

*Rafael Hologa* (University of Freiburg, Germany)

**16:00 – 16:20 Coffee break**

**16:20 Panel discussion: (Chair: Carmen de Jong)**

**Learning from Historical Adaptation and Resilience to Droughts – Where to go from now?**

*Murray Biedler* (UNESCO Liaison Officer, Hydrology and Water Scarcity, Brussels)

*Christian Pfister* (University of Bern)

*Rüdiger Glaser* (University of Freiburg)

*Thomas Labbé* (University of Burgundy, France)

**17:00 End of Conference**

**Talks:** 15 minute talk, 5 minute discussion

**Keynotes:** 20 minute talk, 10 minute discussion