



4th NECLIME Workshop on Digital Plant Distribution

LIÈGE, MAY 30 – 31, 2017

- 2nd Circular -

Organizers: L. François, A.-J. Henrot, A.A. Bruch, T. Utescher

Programme

Monday, May 29

Arrival and registration

Tuesday, May 30

10:00 – 10:30

Welcome address (L. François)

10:30 – 13:00

Quantification of climate requirements of plant taxa using digital data on plant distribution – chorological resources and their quality

- Introduction (A.K. Kern, A.A. Bruch, ca. 30 min.)*
- Round table discussion*

13:00 – 14:30

Lunch break

14:30 -15:30

Short presentations (5 min) on various topics



15:30 – 17:30

Sensitive climate variables in palaeoclimate reconstructions

- *Introduction (B. Erdei, T. Utescher, ca. 30 min.)*
- *Round table discussion*

Wednesday, May 31

10:00 – 13:00

Setting up a standard for the generation of climate data sets based on digital resources – data handling and statistical procedures

- *Introduction (A.-J. Henrot, M. Pound, ca. 30 min.)*
- *Round table discussion*

13:00 – 14:30

Lunch break

14:30 – 17:00

The role of CO₂ in triggering climatic requirements of plants

- *Introduction (R.A. Spicer, W. Konrad, L. Francois, ca. 30 min.)*
- *Round table discussion*

17:00 – 17:30

Final discussion

Thursday, June 1

Departure



Venue

The workshop will be held at the Institute of Physics on the Sart Tilman Campus of the University of Liège, Liège, Belgium. The room number is 4.28. The full address is:

Institut de Physique, Université de Liège, Building B5a, Quartier Agora, Allée du Six Août 19, Sart Tilman, 4000 Liège, Belgium

You can find a map of the campus here (click on "Quartier Agora" to see a detailed map of the area : http://www.ulg.ac.be/cms/c_5876706/en/campus-de-liege-sart-tilman

Travel

Travelling to Liège

By plane

The closest airports are Brussels airport and Brussels South/Charleroi airport. The distance to Liège from both airports is about the same (100 km), but the easiest is probably to come through Brussels airport.

From Brussels airport, you should take a train (the train station is at the basement level -1 of the airport main building) to Brussels North Station or to Leuven, and then change train to Liège. The name of the main station in Liège is Liège-Guillemins. See: <http://www.brusselsairport.be/en/passngr/to-from-brussels-airport/train>

From Brussels South/Charleroi airport, you should take a bus to Charleroi South train station and then take a train to Liège-Guillemins. See: <http://www.charleroi-airport.com/en/acces/en-train-bus/index.html>

By train

There are direct fast trains (Thalys or ICE) from Cologne and Frankfurt serving the Liège-Guillemins train station. From Paris, there are also direct fast trains (Thalys) to Liège-Guillemins. From London, you can take the Eurostar to Brussels-Midi station and then change train to Liège-Guillemins.



Local transport in Liège

From the Liège-Guillemins station you can reach the city center by train or bus.

By train: you should take a train to Liège-Palais (2 stops from Liège-Guillemins). This train station is located on the main square of the city ("Place Saint-Lambert"). Your train ticket from the airport may be valid for this transfer to Liège-Palais by train.

By bus: there are many buses from Liège-Guillemins station to the city center. You can take bus 1, 4, 25, 48. See a map of the bus network on:

https://www.infotec.be/Portals/0/TEC%20Li%E8ge_Verviers/PDF/Liege_Centre_Edition2015.pdf

Reaching the conference building

The Institute of Physics on the Sart Tilman Campus is located about 10 km southward of the city. It can be reached by bus. From the main train station (Liège-Guillemins), you should take bus 48 or 58. From the city center, you should take bus 48 (Opéra, Pont d'Avroy or Charlemagne stops). When you arrive in the campus, you should get down at 'Chimie' stop with bus 58, or 'Physique' stop with bus 48. These buses are very frequent. However, you can find information on the schedules on: <https://www.infotec.be/en-us/gettingabout/schedules.aspx>

Accommodation

We recommend the hotels listed below. The University has negotiated prices with these hotels. The negotiated prices are those reported. If you want us to make reservations for you in order to guarantee these prices, please send an e-mail to the executive secretary of our institute Sylvia Grandjean (Sylvia.Grandjean@ulg.ac.be), referring to the NECLIME symposium organized by Louis François and Alexandra Henrot.

IBIS Liège

Web site: <http://ibishotel.ibis.com/gb/hotel-0864-ibis-liege-centre-opera/index.shtml>

Single room with breakfast : 89,40 € (including taxes)

Double room with breakfast : 104,40 € (including taxes)

Wifi included in all rooms.

E-mail : H0864@accor.com

Tél : +32-4-2303333

**Pentahotel Liège**

Web site: <https://www.pentahotels.com/en/hotels/liege/everything/>

Single room with breakfast : 104,50 € (including taxes)

Twin room with breakfast : 120,50 € (including taxes)

Wifi, TV "upon request"

E-mail : info.liège@pentahotels.com

Tél : +32-4-2217711

Le Cygne d'Argent

Web site: <http://www.cygnedargent.be/>

Single room with breakfast : 74 € (including taxes)

Double room with breakfast : 91 € (including taxes)

Twin room with breakfast : 92 € (including taxes)

Wifi included.

E-mail : info@cygnedargent.be

Tél : +32-4-2237001

Ramada Plaza Liège

Web site: <http://ramadaplaza-liege.com/>

Single room : 91,50 € (including taxes)

Double room : 101,50 € (including taxes)

Buffet breakfast and Wifi included.

E-mail : info@ramadaplaza-liege.com

Tél : +32-4-2288111

HUSA de la Couronne

(this hotel is close to the station)

Web site: <http://www.hotelhusadelacouronne.be/en-gb/>

Single room with breakfast : 85 € (TTC)

Double room with breakfast : 95 € (TTC)

Wifi included.

E-mail : info.couronne@husa.es

Tél : +32-4-3403000

List of anticipated participants

Serkan Akkiraz (Kütahya)

Angela A. Bruch (Frankfurt M)

Marie Dury (Liège)



Boglárka Erdei (Budapest)

Louis François (Liège)

Alain Hambuckers (Liège)

Alexandra Henrot (Liège)

Andrea K. Kern (São Paulo)

Wilfried Konrad (Tuebingen)

Matthew Pound (Northumbria)

Anita Roth-Nebelsick (Stuttgart)

Ulrich Salzmann (Northumbria)

Robert A. Spicer (Stratton Audley)

Teresa Spicer (Stratton Audley)

Sariye Duygu ÜÇBAŞ DURAK (Kütahya)

Shilpa Pandey (Lucknow)

Torsten Utescher (Bonn, Frankfurt M)

Key topics

- *Quantification of climate requirements of plant taxa using digital data on plant distribution - chorological resources and their quality*

So far, NECLIME has a large inventory of climate data of modern plants for the reconstruction of palaeoclimate, which are mainly based on analogue chorological resources. Here we will discuss how suitable different digital chorological and climatological data sets are to improve the climatic resolution and reliability of the data.

- *Sensitive climate variables in palaeoclimate reconstruction*

Depending on the data set chosen, different climatic parameters are available. So-called bioclimatic variables such as temperature extremes or quantifiers of duration and temperature of the growing season, on which plants may respond more sensitively,



potentially are most meaningful when reconstructing palaeoclimate. Moreover, these variables play an important role in biome modelling where they are used in the physical definition of plant functional types. These variables enable a direct comparison of model and proxy-based biome reconstructions. We will discuss the significance of different climatic parameters for palaeoclimate analyses and define a set of preferred parameters for future studies.

- Setting up a standard for the generation of climate data sets based on digital resources – data handling and statistical procedures*

This topic will focus on statistical procedures regarding the numerical treatment of grid cells within a plant distribution area. Which algorithms can be used in areas with high altitude / steep topography in order to minimize unwelcome bias introduced by microclimates? How useful are density functions for plant occurrences in their distribution area including the application of basic statistics (e.g., quantiles)?

- The role of CO₂ in triggering climatic requirements of plants*

The role of CO₂ in palaeoclimate reconstructions was already discussed on the 3rd NECLIME workshop on digital plant distribution, held in Stratton Audley, UK, in 2014. Based on this it was concluded that palaeoclimate reconstructions for time-spans with high atmospheric CO₂ might be biased, mainly with respect to palaeo-precipitation. Here we would like to discuss intended studies including proxy data interpretations and modelling to substantiate this assumption.