

## COST Action CLIMO CA15226 Training School

(Zvolen, Slovakia, September 27-29, 2017)

### *“Dendrochronological methods in forest ecology”*

#### ***Purpose and objectives***

The training school main purpose is to provide trainees an overview of tree ring analysis with special emphasis on tree-ring measurements. The course will cover from sampling, core preparation, tree-ring measurements, cross-dating techniques, standardization, to calculation of main chronology statistics. The training school will also include some general aspects of plots selection and establishment and data collection for an adequate forest stand characterization.

#### ***Trainers***

**Dr. Paolo Cherubini** - WSL Swiss Federal Institute for Forest, Snow and Landscape Research, Switzerland;

**Dr. Enno Uhl** - Technical University, Munich, Germany;

**Dr. Michael Heym** - Technical University, Munich, Germany;

**Dr. Michal Bošela** - Technical University in Zvolen, Slovakia ;

**Dr. Roman Sitko** - Technical University in Zvolen, Slovakia;

**Dr. Robert Sedmák** - Technical University in Zvolen, Slovakia;

**Prof. Marek Fabrika** - Technical University in Zvolen, Slovakia;

**Prof. Katarína Střelcová** - Technical University in Zvolen, Slovakia;

**Prof. Stanislav Kucbel** - Technical University in Zvolen, Slovakia;

**Prof. Jaroslav Ďurkovič** - Technical University in Zvolen, Slovakia;

**Prof. Rastislav Lagaňa** - Technical University in Zvolen, Slovakia;

**Dr. Denisa Sedmáková** - Technical University in Zvolen, Slovakia.



# 1st CLIMO Training School Zvolen, Slovakia

## *Program outline \**

**Tuesday, September 26, 2017:** Arrival of the participants to Zvolen

**Wednesday, September 27, 2017**

*Morning (main building TUZVO, 1<sup>st</sup> floor, room C003)*

9:00 – 9:30: Training School opening (Střelcová, Vicedean Ďurkovič)

9:30 – 10:30: Dendrochronology – overview (Sedmák)

*Field trip to Poľana mt. (picnic lunch)*

14:30 – 18:00: plot establishment, data collection, tree coring (Sitko, Bošela, Sedmák)

18:30 – Social dinner in a restaurant

**Thursday, September 28, 2017**

*Morning (Session: lab work in groups, TUZVO Campus)*

08:30 – 12:30: Core preparation, tree ring measurements, cross-dating, identification of earlywood/latewood in beech cores (Cherubini, Sitko, Bošela, Sedmák, Ďurkovič, Kucbel, Sedmáková, Fabrika, Střelcová)

- LINTAB,
- WINDENDRO
- Atomic force microscope MultiMode 8: cell wall nanomechanics
- Virtual cave: modelling the forest growth

12:30 – 14:00: Lunch break

*Afternoon (Session: Lectures of invited speakers)*

14:00 - 15:30: How to use tree rings to have a scientifically sound estimation of forest stand biomass



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# 1st CLIMO Training School

## Zvolen, Slovakia

False rings, true rings and the identification of the earlywood - latewood transition in the European beech (*Fagus sylvatica* L.) (Paolo Cherubini)

15:30 – 18:30: Estimating recent stand productivity from tree cores (Michael Heym)

Analysis of growth dynamics related to drought stress based on tree rings (Enno Uhl)

### **Friday, September 29, 2017**

*Morning (Session: Experimental approaches to study of tree rings)*

8:30 – 12:30: Core preparation, tree ring measurements, cross-dating, identification of earlywood/latewood in beech cores (Cherubini, Sitko, Bošela, Sedmák, Ďurkovič, Kucbel, Sedmáková, Fabrika, Střelcová)

- LINTAB
- WINDENDRO
- Atomic force microscope MultiMode 8: cell wall nanomechanics
- Virtual cave: modelling the forest growth (Fabrika, Valent)

12:30 – 14:00: Lunch break

*Afternoon (Session: standardization and main chronology statistics)*

14:00-17:30: Standardization and main chronology statistics (Sedmák, Sitko, Bošela)

17:30-18:30: Final conclusions

*\* Note that the program may be subject to small changes*



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## *All you need to know*

### *Who can participate?*

MsC , PhD Students and young scientists belonging to any country participating in the COST Action CLIMO CA15226 are welcome to apply. A maximum of 14 trainees will be selected by COST CA15226 Steering Committee among participants based on previous experience and research interest in the topic. Gender and country balance will be considered.

### *Hosting institution /Venue*

Technical University in Zvolen, Faculty of Forestry. Masarykova 24, 960 53 Zvolen, Slovakia. Telephone: +421 918 685 156. E-mail: [strelcova@tuzvo.sk](mailto:strelcova@tuzvo.sk)



### *Language*

The Training School will be held in English, thus students must have working knowledge of the subject in this language.



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# 1st CLIMO Training School Zvolen, Slovakia

## ***Financial support***

CLIMO will support Trainees with a grant of approximately 480 €. This is an estimation only; the final figure will be communicated with the letter of acceptance.

## ***Application procedure***

Potential trainees should send an e-mail with the following information to the Host Institution representative and the Action chair:

- Motivation letter
- Brief CV
- Research interests

**by August 10<sup>th</sup>, 2017** to both the Action Coordinator ([tognetti@unimol.it](mailto:tognetti@unimol.it)) and the Local Organizers ([strelcova@tuzvo.sk](mailto:strelcova@tuzvo.sk))

## ***For more information please contact:***

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