



## **The Research Institute for Nature and Forest (INBO)**

**Is offering**

**multiple internships**

**drought stress and provenance tests for shrub and tree species**



The Research Institute for Nature and Forest (INBO) is the Flemish research and knowledge centre for nature and its sustainable management and use. INBO conducts research and supplies knowledge to all those who prepare or make the policies or are interested in them as a stakeholder.

Through its scientific research, INBO supports all agencies dealing with open space in the Flemish government, as well as in organisations involved in nature conservation, forestry, agriculture, hunting and fishery. INBO publishes its results as open data and provides data for international reporting. It participates in (inter)national research networks such as LTER, ALTER-Net, LifeWatch, ...

INBO is an unincorporated internal agency of the Flemish government.

## **Internship subject**

The Forest Ecology and Management team is looking for various bachelor students (or in training) to participate in climate research at INBO, more specifically in 'drought stress and provenance tests of shrub and tree species' with ILVO location in Melle (Caritasstraat 39).

**It can be mutually agreed with 2/3 students to bridge the entire period.**

**Attendance: 2 days a week is sufficient.**

**The trial can only take place if students can be present in July and August (2 days a week, sometimes 1 day will suffice).**

**Period: From June / July to August / September 2021**

## **Justification of the research**

Different types of trials are being conducted to gain better knowledge of how trees and shrubs will respond to climate change. For example, with provenance tests we attempted to answer the question of whether southern origins of tree and shrub plants should be planted here in anticipation of the predicted climate change. To this end, seed was harvested in 2016 from local seed sources of various shrub species according to a European north-south gradient (Sweden - Flanders - Spain). These seeds were sown and germinated in 2017 and 2018.

Two specific questions can be answered by these provenance tests:

- a) How foreign origins in Flanders behave with respect to local origins: phenology, morphology and growth are examined
- b) Determine how non-local and local origins react in an elevated temperature environment and / or in drier conditions.

## **Proposed internship activities:**

1. A drought stress experiment is conducted on two groups of plants (*Prunus spinosa* and *Fagus sylvatica* (optionally also *Corylus avellana*) with different provenances for each species originating from latitudinally different sites. The hypothesis is that more southern provenances are more thermotolerant. Different observations and measurements are performed:

- Weighing of the pots (proxy for water loss)
- Growth (height and diameter) of the plants during and after the drought period
- Observations of drought stress symptoms

2. If present in september: observations of leaf senescence

3. Data processing in excell or r

If you are interested, please contact Kristine Vander Mijnsbrugge ([kristine.vandermijnsbrugge@inbo.be](mailto:kristine.vandermijnsbrugge@inbo.be)) who will act as your internship supervisor.

If you have general questions about an internship at INBO, you can contact Davy Verspeet:

*Davy Verspeet –  
HR internship policy  
0473 98 33 48  
[Davy.verspeet@inbo.be](mailto:Davy.verspeet@inbo.be)*

### **Disclaimer**

*The school is responsible for the insurance of the student. The student cannot invoke the INBO's occupational accident insurance as he is not covered by the employee scheme. The student must therefore report an accident to the insurance of his school.*

*Note to foreign students: There is no possibility of accommodation within the INBO.*