



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

**Is offering**

**an internship**

**measurements and phenological observations in provenance tests  
of native tree and shrub 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 team Forest Ecology and Management is looking for a Bachelor student (or in training) to participate in the project "measurements and phenological observations in provenance tests of native tree and shrub species" at ILVO in Melle (Caritasstraat 39).

The internship student will be involved in climate research at INBO, more specifically in drought stress and provenance tests for shrub and tree species

**Period: September and / or October and / or November 2020**

## **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. Carry out height and diameter measurements and observe leaf discoloration and leaf drop on various batches of plants (including Gelderland rose, hawthorn and bird cherry) that underwent temperature treatment in the spring of 2020 (warm and cold condition) during the sprouting of the plants (March to half April). Purpose: influence of temperature at the beginning of the growing season on height and diameter growth.
2. Carry out height and diameter measurements and observe leaf discoloration and leaf drop on plants (spork) that underwent drought stress in 2018. Purpose: to determine how long the influence of a drought stress period can be felt in the subsequent growth years
3. Seed harvest on plants from point 2 above. Purpose: to determine whether drought stress has after effects in offspring
4. Carry out height and diameter measurements and observe leaf discoloration and leaf drop in various provenance tests (including beech)
5. data processing in R of the observations.

If you meet the requirements below, please contact dan Kristine Vander Mijnsbrugge ([kristine.vandermijnsbrugge@inbo.be](mailto:kristine.vandermijnsbrugge@inbo.be)) who will act as your internship supervisor.

- An interest in plant work

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.*