

## Ecological conditions

**Soil:** deep, free, cool, rather neutral pH

**Annual average temperature:** about 10°C  
extreme temperatures: + 32°C, - 25°C (1956),  
- 17°C (1962)

**Rainfall:** about 1 900 mm a year, most of it in spring, the  
hygrometric level being always high even in good  
weather

**Snow cover:** about 1m between January and February

**Sunshine:** limited; in summer, the arboretum gets  
8 hours of sunshine while at Christmas time, there is  
only 1 hour a day



*Picea purpurea*  
China

## Tree arrangement

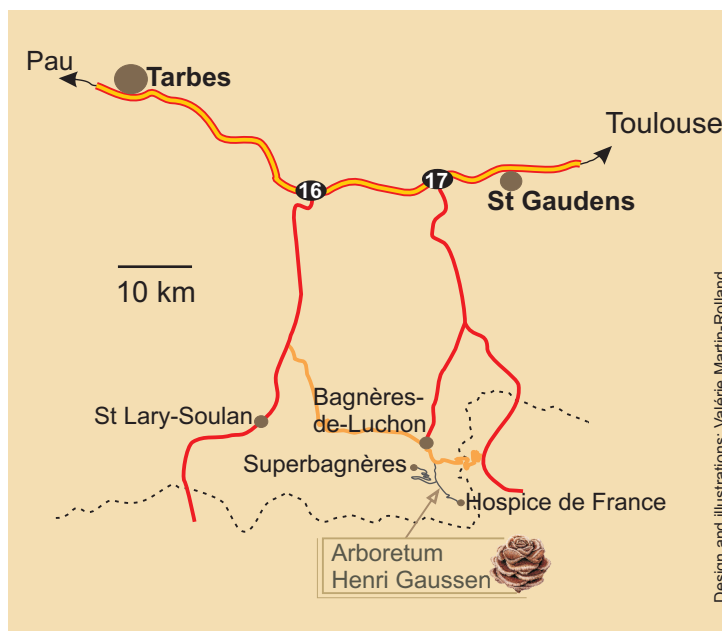
Each taxon has its own geographical location:  
American species in the west, Mediterranean and  
European ones in the centre and Asian ones in the  
east.

## Location of the arboretum

- south of Bagnères-de-Luchon, towards l'Hospice de France
- altitude 1 000 m
- North-South steep-sided valley

### Access

At Luchon, go towards Superbagnères, then take the  
Vallée de la Pique (D 125) towards l'Hospice de France.



**Arboretum Henri Gaussen**  
Lieu-dit Jouéou  
Route de l'Hospice de France  
31110 LUCHON



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## Arboretum Henri Gaussen « Jouéou »

Université Paul Sabatier, Toulouse



*Pseudotsuga menziesii*  
North America

# History

The Arboretum, called Arboretum de Jouéou was named after its founder, the Professeur Henri Gaussen in 2002.

Besides being a geographer and a biogeographer of international notoriety, Henri Gaussen was also one of the most famous botanists of the 20th century.

He had a passion for trees, wrote abundantly and was considered as one of the best specialists of conifers.

For over 60 years, he worked with a team of highly specialised researchers at the Faculté de Sciences in Toulouse and they published a great number of bulletins devoted to their botanical research.

Their work has led to major discoveries and dozens of newspecies have been described in their laboratory.

In 1921, Gaussen created the sylvan-pastoral Laboratory, at the Jouéou. He decided to set up an arboretum devoted to tree research.

It was started in 1928. For years to come, the Laboratory Forestier was to be at the core of an incredible scientific adventure.

Their main objective was to set up a comprehensive living collection to make up for the insufficient number of samples for tree botanical studies. In the publications from "Travaux du Laboratoire Forestier de Toulouse", there are many articles which are the result of observations and studies made at Jouéou.



*Séquoiadendron giganteum*  
North America

Thousands of trees from all over the world were planted. Seeds collected by famous explorers and botanists, Wilson, Forrest, Rock, Cheng, Martinez... were sown.

Prestigious international organisations, among which Kew, Arnold Arboretum, Morton Arboretum and the Jardin de Nankin as well as French organisations like Vilmorin, Les Barres, La Villa Thuret... also brought their contribution.

One should also mention the Forestry Departments and the great number of Botanical Gardens from all continents so as to have a real picture of the extraordinary co-operation triggered by the project.

Thanks to his contacts, Gaussen was able to get plants coming directly from their natural environment, which is rarely feasible today and which makes this collection extremely valuable.

About 350 trees out of the thousands which were planted have remained.



*Chamaecyparis nootkatensis*  
North America

## The collection

It is composed of two distinct sections:

### The large arboretum

#### The botanical collection of conifers

It is made up of over a hundred species, most of them from North America and Eurasia. They are classified according to their genus and within each genus according to their geographical origin.

Fir trees, spruce trees, pine trees, and yew trees are in number as well as douglas-firs, tsugas, cedar trees, thujas, chamaecyparis, sequoias...

To be especially noticed are the sciadopitys and the cryptomerias, which are both Japanese and the two truly



*Sciadopitys verticillata*  
Asia

living fossils, the Chinese metasequoias. South America is also represented with the araucaria from Chile and Australia with a prumnopitys.

However, if the climatic conditions are ideal for many species, they are difficult for some others, and some cannot even survive due to the high degree of humidity and limited sunshine.

This is the case, for example, of the mountain pine (pin à crochets), a Pyrenean pine tree adapted to the light of high mountains which cannot survive at Jouéou.

This accounts for the very few cypresses and junipers at the Arboretum as these trees from dry regions cannot cope with the humidity of Jouéou.

Another surprising case is that of the fir trees from Siberia and its sensitiveness to frost: in their country of origin, the weather is much colder than in the Pyrenees, but, here, spring comes all of a sudden and the severe temperature differences disturb the young shoots who come out too early.

The second section is devoted to species and varieties. It is meant to enable the public to compare alongside trees belonging to the same species but coming from different areas.

For instance, fir-trees spread discontinuously from Finland to Southern Spain. Along this whole stretch, several different species have developed. Their growing alongside on the same piece of land brings in some further valuable biological information.

Among other trees planted there, you will find the black pine whose various subspecies are to be found around the Mediterranean Sea, the European mountainous fir-tree, the cedar tree from the Atlas...