

## **BOTANICAL GARDEN**

**Faculty of Science of the Charles University in Prague**

### **OUTDOOR EXPOSITIONS:**

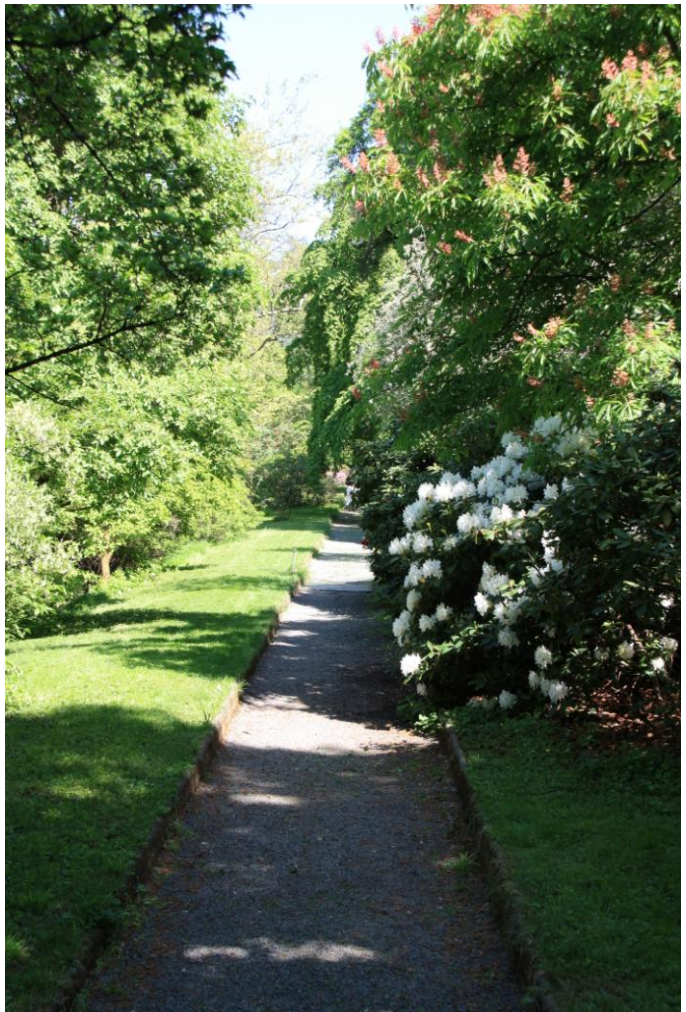
- \_ Central European flora (ca 1100 spp.)
- \_ Aquatic and wetland plants (ca 100 spp.)
- \_ Plants of the sandpits
- \_ Plants of the marshes and bogs
- \_ Flora of the Mediterranean (ca 400 spp.)
- \_ Medicinal and useful plants (ca 120 spp.)
- \_ Plant System (built)

### **THE GREENHOUSES:**

- \_ tropical plants
- \_ wet subtropical plants
- \_ cacti and succulents

From the history of the Botanical garden

The botanical garden was established 230 years ago, in the year 1775, on a place called Smíchov on the opposite bank of the Vltava river. In this garden, there were around 13 000 species of autochthonous and exotic plants. However, this botanical garden suffered from frequent flooding, so it was removed and reestablished on a place that had been bought from "The Society for Cultivation of Gardens", which was supported, among others, by the count Rohan. The garden, along with the new botanical institutes of both Czech and German university, was opened on its current place in the year 1898.



*One of the garden's terraces*

The plant collection from the original garden on Smíchov was split in two and each half was given to one university. The new botanical garden also took care of plant collections from the greenhouses of The Society for Cultivation of Gardens, part of which has persisted till present. Therefore, the age of certain palms, cycads and some other plants is estimated to be more than 130 years. The greenhouses of the German university were seriously damaged during the bombing on February the 14th, 1945 and had to be demolished later. After the end of WWII, The Charles University took care of both German and Czech part of the garden. The Botanical garden had been connected with the Department of Botany till the eighties of the 20th century, but it has worked as a separate institution of the Faculty of Science since then.

### **Outdoor part of the exhibition**

These are the grounds of the Botanical garden; they contain around 5000 plant species, which have been imported from original central European localities since 1904, so they also represent a unique genofond collection. The most important or ecologically defined parts of the collection are discussed more thoroughly in the following paragraphs. Besides these, the collection of commercial plants, roses, ericoids or a rock with mediterranean flora are perhaps worth mentioning. Central European flora is the ground of the outdoor exhibition; it was founded along with the garden and it has been continuously complemented since then. Its "rocky" part is made of a limestone from Český kras (Czech karst area) and is therefore casually called "Karlštejn". It also contains a romantic artificial cave, now being completely



covered by *Hedera helix*. The whole exposition is divided into a rocky limestone part with a dramatic relief and a shady alluvial part with a dominant tree *Pterocarya fraxinifolia*, which ranks among the oldest trees in the garden. This exposition contains around 1100 species from the Central Europe. Visitors get acquainted not only with common central European species, but with the endangered species and endemits as well.



*Azalea*

### ***Aquatic and wetland plants***

The exhibition on the second garden terrace was built in the years 2002-2003 and contains about 100 taxa of wetland plants. The system of this exhibition is based partly on an ecological and partly on taxonomical approach.

### ***Plants of the sandpits***

Ecologically defined exhibition of plants typical for light sandy soils contains not only species characteristic for this habitat that have broad areas (*Calluna vulgaris*, *Pteridium aquilinum*), but also rare plants of sandy soils, mostly from the pannonic area (e.g. *Ephedra distachya*). Also species with the atlantic area are represented.

### ***Plants of the marshes and bogs***

Edaphically defined exhibition contains plants of the marshes represented by *Ligularia sibirica*, *Iris sibirica* or by *Equisetum variegatum*, which is nearly extinct in the Czech Republic. The peat bog plants are represented by *Vaccinium uliginosum*, *Potentilla palustris* or a rare species *Empetrum nigrum*. Trees and bushes represent an important part of the exteriors of the garden. The collection of the genus *Rhododendron* draws most attention in the spring, the collection of coniferous plants in the opposite of the greenhouses decorates the garden throughout the year.



The species and hybrids of the genus *Magnolia* are also certainly worth mentioning as well as the collection of the genus *Quercus* in the upper part of the garden. *Nothofagus*, native to the southern hemisphere, ranks among the modest looking rarities of the garden. *Lonicera purpusii*, *Hamamelis mollis* and *Chimonanthus praecox* appeal as the first bloom in the early spring.

*Pterocarya fraxinifolia*, the largest tree in the garden, shades the exhibition of the alluvial forest flora. It was planted together with the establishment of the garden. The neighbouring *Gymnocladus dioica*, *Platanus x hispanica* or the *Quercus* trees nearby the entrance are also of an impressive age. The tree *Metasequoia glyptostroboides*, which was first described as a fossil and then discovered as a living plant in China in 1941, has been planted in the garden since 1949. However, the most well known tree from the garden is a dwarf specimen of *Ginkgo biloba* in front of the greenhouses.

### **The greenhouses**



The greenhouses were thoroughly reconstructed during 1997-2000. Their area was enlarged to 2000 square meters, 1600 square meters of which goes purely to the exhibition area, the rest goes to the technical background and the greenhouses for cultivation. The greenhouses consist of the following parts:

- \_ tropical greenhouses
- \_ succulent greenhouse
- \_ subtropical exposition



Tropical greenhouses consist of different areas. At the entrance, there is the exhibition of the Cycads, dominated by impressive specimen of *Cycas circinalis*, more than 130 years old. The species of the tropical forest, mostly from the paleotropic area, cover the largest part of the greenhouse. The family Araceae is vastly represented in the herb layer, the tropical ferns and Bromelias are presented in a separate section. Large plants from the Musaceae and Strelitziaceae family dominate the third part of the greenhouse, along with the artificial lake were the southern American plants from the genus *Victoria* (see right) are planted. Subtropical and tropical palms are concentrated in an arch which closes the greenhouse in the direction to the street "Na Slupi". Some of these, such as *Washingtonia* or *Phoenix dactylifera*, are more than 100 years old. These are exhibited outside along the main way during the summer. Wet subtropical greenhouse serves for the winter housing of the plants that are located outside during the summer, right from the entrance. The plants are positioned geographically, the largest collection deals with mediterranean plants and plants of the Australis. The dominants of this part of the greenhouse are the specimen of *Cedrus libani*, *Agathis australis* from the New Zealand or *Metrosideros excelsa* from Australia, which is more than 100 years old. Dry greenhouse with succulents is, with the exception of the space around the greenhouse, systematically arranged. Being the most important collection in the greenhouse, it is continually enlarged. The largem area is covered by the representatives of the families Cactaceae, Aizoaceae and Crassulaceae. The succulents of the wet tropical forests are exhibited in a separate box. The collection of the plants from the genus *Agave* is also rich, a specimen of *Agave americana* from this collection produced a large, almost 10 meters long bloom last year.



## BOTANICAL GARDEN

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*Wet subtropical part of the garden*