



# SPRING 2007

## Newsletter

### The Pruhonovice castle-urban forest with biologically appropriate tree species

By Willem Morsink

I recently encountered the Pruhonovice castle-urban forest with *biologically* and *site appropriate* tree species, when visiting Prague (Praha) in the Czech Republic. This 250 Ha castle estate the Pruhonickeho Parku is located at the south end of Prague at an altitude of 280-342 m, and with a climate somewhat milder than Toronto's. This castle dating from the 12<sup>th</sup> century is located in the deforested gently rolling agricultural landscape south of Prague, reminiscent of similar deforested and gently rolling agricultural landscapes in southern Ontario. Some rocky ridges and steep slopes unsuitable for agriculture still showed native (European) trees, such as *Quercus petraea*, the sessile acorn-oak from Central Europe and West Asia, *Fagus sylvatica* the European beech, Norway maple *Acer platanoides* and *Betula pendula* the European birch. The wetter lowlands along creeks, ponds and marshes showed European ash, *Fraxinus excelsior* and European alder *Alnus glutinosa*, all such species occurring as **native** and **site-appropriate** species for the area. The well drained higher slopes were planted with native species such as Scots pine *Pinus sylvestris* and Norway spruce *Picea abies*.

But the whole park complex also features many introduced tree species from the temperate world, such as bald Cypress *Taxodium distichum* from Florida along the wetter parts of some creeks; the higher well drained sites show introduced species such as our native red oak *Quercus rubra*, Engelmann spruce *Picea engelmannii*, silver fir *Abies Concolor*, Douglas fir *Pseudotsuga menziesii* from the west north American mountains and our native Ontario white pine *Pinus strobus*, and many other exotic introductions from Eastern Asia. Are such introduced species biologically appropriate for this place?

The castle lands with acidic soils, feature meadows between forest plantings and must have been used for agricultural and cattle until in 1885 when Count Ernst Emanuel Silva-Tarouca descending from a Portuguese

aristocratic family obtained the property by marrying into a local aristocratic family. With extensive reconstruction of the castle, came the establishment of the park starting in 1885 until the death of the owner Count Ernst in 1936. With an extraordinary artistic and aesthetic feeling he reshaped this piece of monotonous central –Bohemian agricultural landscape into a park which represents a top achievement of nature- landscape style of European importance. The Count made use of the diversified valley of the Botic stream, its ponds as well as the original plant communities with native-indigenous species which he enriched by adding exotic or introduced tree species. Besides its artistic-historical significance, the Park is also valued as a dendrological collection of native and introduced species about 1500 taxa and cultivars of woody plants both of broad leaved and coniferous taxa. The best known genus is *Rhododendron* with about 8000 plants of 100 taxa and cultivars. Naturally that was the reason I visited the place being a fanatic rhododendronite.

Count Ernst and a distinguished dendrologist Camillo Schneider established a dendrological Society at Pruhonice in 1909. In 1936 when Count Ernst died the property was sold to the Czechoslovak State and is managed by the Institute of Botany, Academy of Sciences of the Czech Republic; [ibot@ibot.cas.cz](mailto:ibot@ibot.cas.cz)

The park can be reached from downtown Prague by taking the red metro line, direction Haje, and getting off the second last stop Opatov before the south terminal stop Haje. Take the 15 minute bus trip with bus 325 to Eccleste and disembark in the Pruhonice town centre at the Pruhonice Hlavani stop. Bus tickets are available from the bus driver.

Presently the larger Pruhonice area is intensively exploited commercially and the park is surrounded by buildings; it has become since 1885 an urban park planted with *biologically*, both native and introduced, *appropriate species*. But what is the meaning of *biologically appropriate*? The objective of the Count had been to create a natural looking forest, and there was no intent to create an arboretum. For the one not initiated in tree identification, there is no doubt, this park forest looks extremely natural thanks to the understanding by the Count to plant trees on appropriate sites and to make the plantings looking natural and aesthetically pleasing. If such a planting with native Canadian and introduced species from elsewhere would become established in the same manner on the Downsview urban park area in Toronto, it might also look natural to most urbanites in 100 years. So how biologically-important is the native vs. introduced species issue?

*“We can get bent out of shape on the native tree issue without thinking of what we’re really trying to promote and to whom”*, e-mailed, Barb Boysen, Coordinator of the Forest Gene Conservation Association to members of the OUFC and Ontario Heritage Tree Alliance (OHTA) on the ‘native’ tree issue. Peter Dmytrasz and I had been working on the Heritage tree scoring charts and had excluded native point scoring for individual trees, while including such a score for grove of trees and native arboreal remnants. I explained to some that we don’t discriminate against introduced single heritage trees, but a much more satisfactory explanation was provided by Barb. In the flurry of e-mails between the two aforementioned groups, Barb’s inconspicuous looking e-mail likely got filed away and was forgotten. Her message, however, contains an important concept, contributed by the late Henry Kock, from the Guelph Arboretum, namely *biologically appropriate tree species in urban settings*. *It implies that urban tree settings are not necessarily ‘native’ and we may have to look beyond our native suite of species to get anything to grow in many urban situations.*

Barb added to that you can expand this to *‘culturally appropriate’* as well. Christmas, for example is an imported cultural ‘concept’; is the Christmas tree to be planted in an urban setting? Can it be explained in this context with signage, showing relationships among spruces of the world’s temperate regions? Henry Kock used to encourage school yard plantings to incorporate where possible exotic

cousins of native species along side the natives – as an education tool – and to help the many recent immigrant kids relate back to their landscape.

### **Use of native trees in urban landscapes**

Native trees retain the results of thousands of years of environmental selection in their genetic makeup. This work of nature should not be wasted, but it could easily happen through the extensive urbanization and removal of original native trees in the landscape. Here, in southern Ontario, we have the northern climatic distribution limit of a large number of deciduous tree species. Many of these species exist now only in ever decreasing numbers as urbanization progresses. Jorgensen noted that: *Exotic, as well as native trees and their deviations (dwarf, weeping, columnar, global, and colour variations) from the more normal form have a place in the Ontario landscape. But let us not go overboard with these selections, because in many subdivisions green trees have become a rarity. If we look outside the urban areas, I have the view that planting of exotic trees should be kept at a minimum, unless we purposely decide to change our nature-given landscape into an artificial international landscape(8.10).*

Finally, a biologically appropriate fact is that one would not rehabilitate a native arboreal remnant (woodland) with introduced species, to prevent genetic pollution for species that might hybridize with introduced ones and because of the possibility of introduced trees producing numerous seedlings which could take over the woodland and thus change the natural-visual heritage of the native arboreal remnant.



## ZAPOROZHIAN OAK (Ukraine)

Few trees from the very oldest times have been so honoured by people as the oak, one of the most long-lived and strongest trees on earth. Not many places on our planet can boast of such a majestic old-timer as the Zaporozhian oak. Over seven centuries the girth of the tree reached 6.32 metres and its crown of leafy branches now has a spread of 43 metres in diameter. When the oak was still young it was probably bereaved of its crown for at a height of one to three metres there appeared lavish offshoots.

In the quiet valley near the Verkhnyaya Khortitsa River, they grew until they reached 36 metres, a record height for oak trees. If you look at the tree from afar, it looks like a gigantic shrub. Maybe this is the reason that the oak was spared the axe in the 19<sup>th</sup> century when the virgin forests of the Dnieper river area were so ruthlessly felled after the tsarist government had given the land over to landlords and colonizers.

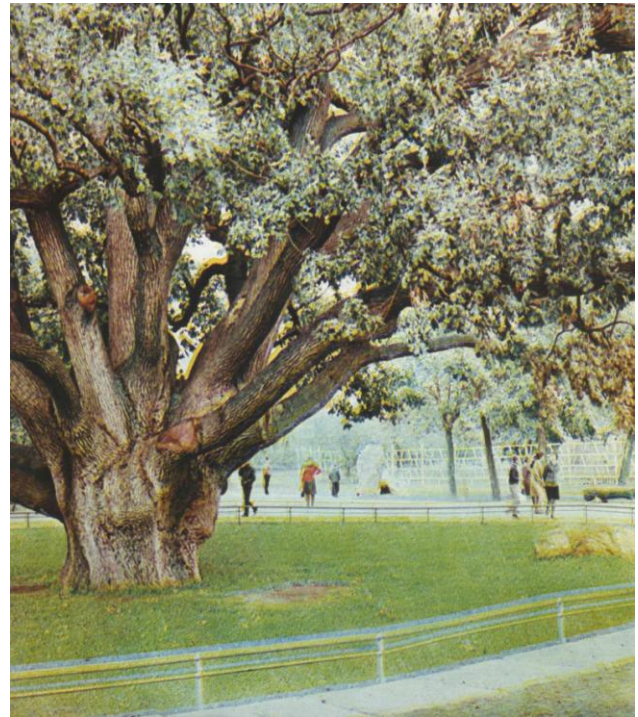
According to specialists, the Zaporozhian oak is in its prime. It bears fruit once every two years. Tourists eagerly carry off its acorns as souvenirs and take them to all corners of the world planting them in their yards. So the leaves of the Zaporozhian oak saplings rustle in many spots on the globe. And their rustlings seem to relate legends of old to today's generations.

It is believed for instance, that Bogdan Khmelnytsky stopped under the Zaporozhian oak in 1648 with the army he was leading to fight the enslavers. And what wonderful words were put into the Hetman's mouth by a folk legend: "Hard trials have befallen us, as our lot. Let us then in battle be as strong and enduring as this Herculean oak, as inseparable from our Homeland as the roots of this tree from the soil". Another legend has it that it was the Zaporozhian oak that listened to the rowdy laughter of the Zaporozhian Cossacks when they wrote their famous letter to the Turkish Sultan. (A famous painting by Ilya Repin *'The Zaporozhye Cossacks Writing a Mocking Letter to the Turkish Sultan 1880-91'*). This old-timer witnessed the brilliant historical events that took place after the October Revolution (1917). It saw the birth of the Dneproges (Dnieper Hydroelectric Station ~ a huge dam constructed with manual labour of men and women).

Zaporozhians (residents along the Dnieper River in Ukraine) love this famous tree and tenderly look after it. Systematic and qualified care of the tree began in 1910 when a Petersburg political exile founded a 'Society for the Preservation of Nature' in the village of Verkhnyaya Khortitsa. Today the Zaporozhian oak is regarded as a unique specimen of nature and is under state protection.

Young and old alike keep coming to look at the mighty old-timer as if wanting to come in touch with eternity. And the century-old wrinkles time has engraved in its bark do not remind us of swift-flowing years but of the triumph of life.

*(Excerpt from ZAPOROZHIAN OAK, published in Kiev Ukraine, 1979)*



### Upcoming OUFC Events

May 12 - Leslieville Tree Festival

June 9 - Oakville Heritage Tree Workshop  
To be held at the Glen Abbey Golf Course  
and Bronte Creek Provincial Park

June 16 - Trees Davenport Festival

## **Review of Green Living Show and Earth Day**

Earth Day was well attended as finally some good weather and lots of volunteers to plant trees but not enough shovels

The Green Living Show proved to be a valuable networking forum – 4 toolkits and 150 White Oak seedlings sold – also lots of students – Heritage Trees talk given a workshop stage

**ONTARIO URBAN FOREST COUNCIL  
1523 WARDEN AVENUE – UNITS 23 + 25  
TORONTO, ONTARIO  
M1R 4Z8**