

Czech This Out!

26th October to 2nd November 2003

Day 1 (Sunday 26th) Ola and Vikki arrived in Prague and were met by Jarek Kolarik, a leading ancient tree arborist in the Czech Republic, who organised the trip. Nev and Ben arrived from Bristol more or less at the same time. The five of us checked into a local hotel and made our plans for the coming week with much excitement.

Day 2 On Monday morning we were warmly welcomed at the Agency of Nature Protection in Prague by Mr Reš, where both Nev and Vikki gave a short presentation. Vikki talked about ancient trees and their management in Sweden and Nev talked about the situation in the UK. There were around 15 people who came to the department to listen to us. There were many questions once we had finished and an interesting discussion followed about the future of ancient trees and their management.

Mr Reš explained that all ancient trees or 'memorable' trees in the Czech Republic are protected by law. There are currently 4090 in a database, but there are some 15000 that have been recorded and protected in total. The largest recorded oak is 10m and 3cms in girth. 25% of the protected trees are oak and mainly *Quercus robur*. They described some areas where trees have not been protected, whilst being sure that it will happen in the future. The audience was very keen on developing better links with both the UK and Sweden and also in developing an ATF Czech Republic. One member of the audience described how she had been translating some of the words that Nev had used in his presentation last year into Czech, such as phoenix trees and that had proved to be quite tricky!



In the afternoon, we drove south to Třeboň, a medieval spa town in Southern Bohemia in the Třeboňsko region where we met Bohdan Chadt. He is an arborist who works in an inspiring way with ancient trees in the region. When we saw his dedicated work we felt moved to adopt him as an honorary Ancient Tree Forum member. He works with Josef Hlašek the head of nature conservation in the Třeboň Protected Landscape Area and Biosphere Reserve Administration in which are 29 nature reserves. We met them at a wonderful overgrown oak wood pasture called Branska Dubina (which means oak forest, Dub = oak). The reserve oaks are maiden trees (as there is no pollard tradition in the Czech Republic) and aged between 250 to 400 years. We estimated that there were between 200 and 400 veteran oaks at that site. The site is set within a vast wetland region (10,000 ha). The character of the landscape is derived from the fifteenth and sixteenth centuries and even by today's standards, we would consider that the massive hydrological drainage works that took place then would be an immense and ambitious feat of engineering.

The oaks are surrounded by 50-year-old spruce and other deciduous woodland including aspen and lime. Some clearance has already taken place around some of the oaks, which had been carried out very sensitively. Most of the oaks are not overtopped (apart from the odd aspen and lime). It really is a wonderful site and has *Osmoderma eremita* and *Cerambyx cerdo*. Not to mention the middle spotted woodpecker (*Dendrocopos medius*). That evening there was much discussion about the issue of 'continuity' due to the fact that this site clearly had been a wetland some 400 or 500 years ago. This was a *continuing* theme of discussion throughout the week!

We were further impressed by a fantastically ambitious project that Bohdan has undertaken. One of the very large oaks had fallen over, which he decided would be perfect to use as an exhibit. The castle in Třeboň offered him a room and he decided to move the tree into it. How did he get it into that room through that door? You will have to visit to find out! Suffice to say that this has taken two months of work and cost around £2000 all of which has come from Bohdan's own pocket. It will be open to the public in May 2004.



The tree in position



Ola entering through narrow doorway through which Bohdan brought the ancient tree trunk into the room

Day 3 On Tuesday we met up with Bohdan again and he took us to visit several other small sites, where he had undertaken some work on the oaks all of which were protected. One of the dead ones contained a bat roost.

We then visited one of the dam areas around Třeboň, where some 18000 recorded oaks were planted to secure the dams. The area of natural wetland is fascinating, both from a historical as well as an ecological point of view. The dynastic Rozmberg family, who had their seat of power in that area from the twelfth century to 1611 and had the vision to drain the wetlands and install the vast area of interconnected lakes created from a river (known as the 'Golden Stream'). The levels are controlled by a system of rhines/channels and sluice gates. There are some 600 lakes, the largest of which is

over 600ha. The reasons for creating this man-made 'lake district' were to make an inhospitable landscape habitable and establish a fish resource (on an extraordinary scale for a land-locked county). The result is that this enterprise has changed the climate, economy and ecology of Southern Bohemia and created a vast resource of ancient oaks that date back over 400 years, which are today's inheritance. The wetland area is a RAMSAR, SPA and N2000 site. It is estimated that around one third of the oaks on the dams are ancient (with a high proportion of the remainder showing a wide range of veteran features).

The area is also of interest in that recent discoveries of a thick buried lake sediment in the Třeboň basin, are giving rich evidence about the climatic and vegetation sequences of the past fifteen thousand years. Just before getting on the road again, we visited a solitary oak tree in the middle of a field, which had been worked on and thus its future secured by Bohdan – a truly impressive effort by one man. Although our language was different, we had met in Bohdan a kindred ancient tree enthusiast and a natural proponent of environmental arboriculture.



In the afternoon we travelled north to a town called Mělník and the university there, where once again we were on stage. Ola and Vikki talked in more detail about the management of ancient trees, wooded meadows and wooded pastures in Sweden. Nev talked about ancient trees in the UK, techniques of environmental arboriculture and management issues. We were very touched by the level of interest shown in our visit; there were around 50 students at the presentations and it was a public holiday. That evening we sampled the local Moravian wine from a cellar deep beneath the streets of the town with some very fine food. The wine tasted excellent as jug followed jug; unfortunately we discovered that it also gave an equally fine hangover!

Day 4 On Wednesday morning we took a short walk to the look-out point in Mělník, where you can see the confluence of the Voltava and Elbe rivers. We were told that last year's floods caused such an intense flow at the confluence of these rivers that the Elbe had begun to flow backwards!

After some souvenir shopping (Moravian wine of course), we drove to a Landscape Protected Area and Biosphere Reserve, called Křivoklátsko – 630 square kilometres (around half the size of Wales). This is protected for the geological and nature conservation interest and is the place where the Trilobite life-cycle was discovered and where its evolution was traced. We were met there by the Deputy of the park, Petr Hula who was our guide and gave us the opportunity for trilobite fossicking!



Křivoklátsko, Berounka River

The Berounka River runs through the area and is thought to be one of the last rivers in Europe unaffected by engineering. The area is densely wooded and contains 24 nature reserves. One in particular we visited was a fantastic 460ha oak-hornbeam woodland, closed to public access. It was difficult to tell how old the trees were, but there was a huge amount of dead wood in the area and it had at

least 6 species of woodpecker breeding there. There has been 20 years of systematic surveys and monitoring in the Křivoklátsko area. It is extraordinary in that there are 1800 species and sub species of vascular plants of which 97 are protected. One of the rarest is *Gentianella campestris* subsp. *Baltica* grp. There are 84 tree and shrub species, which form 47 sets of forest types. After a wonderful afternoon at Křivoklátsko, we headed east towards Brno, the second city of the Czech Republic, which was to be our base for the next three nights.

Day 5 On Thursday morning we met Libor Jankovský, head of forest pathology at the Mendel's University in Brno. We gate-crashed a field trip organised for an international course being run at the university. Libor was a wonderful guide and a true enthusiast. He took us to a wonderful floodplain forest called Lanžhot, in an area to the south sandwiched between the borders of Austria and Slovakia. The oak-hornbeam floodplain forest was quite extensive; however the protected area was only 26ha.



Cerambyx cerdo excavations

He said that the site had once been common pasture for pigs from nearby villages and that *Cerambyx cerdo* was at one time so plentiful that it was gathered from the forest floor for feeding domestic chickens. He had recorded 350 species of fungi at that site.

Much work had been done to manage the water levels to allow flooding, given that flooding was no longer happening naturally and the last time it had been flooded was 3 or 4 years ago. We had some interesting discussions about oak regeneration in a flooded forest. It seems that since the flooding has ceased, oak has stopped regenerating – maybe flooding is a factor essential for regeneration in this site? The

hawthorns that were in this area had very small thorns, suggesting that grazing has had a limited impact in this area.

En route to the next site we briefly stopped to see the handy (toothy) work of beavers and Libor also discussed the origin and emergence of the aggressive strain of Dutch elm disease (*Ophiostoma novo-ulmi*) that emerged in the UK in 1973. He said that it was noted in Hungary in 1958 and Czech Republic in 1961, i.e. prior to the first reportings of the disease being found in the notorious consignment of logs that arrived from Canada at Southampton docks. He advanced a theory that it was imported via Russian tanks (as a vector) during the Hungarian invasion of 1956 from Vostok rather than the usually held route from Canada.



Lanžhot

Libor said there were 400,000 wild boar in the Czech Republic and spoke vehemently of the control that the hunting lobby has on forestry and woodland management. In the afternoon we visited a site called Rendezvous, a site with many ancient *Quercus cerris*, but also several other species of oak – 8 different species in total. This was an area managed by the state forestry

service, but with consideration of the ancient trees and was full of interesting decay fungi including a species we nicknamed 'woodpecker hole fungus' *Inonotus nidus-pici*. *Cerambyx cerdo* was also recorded from the site.

There was another strange fungus we had never before encountered called *Inonotus andersonii*. It does not fruit for the first 100 or so years on oak or until the tree dies, when the fruiting (the teleomorphic, 'perfect' stage of the fungus' life-cycle) forms as a golden-yellow, corrugated crust wrapped around the surface of the trunk. It has also been found on four other sites in the Republic on limestone plateau. Libor said of the fallen oaks that they took 80 years to rot down entirely on that site. Libor carried with him an axe at all times and was able to identify most of the decay fungi by the decay!

Day 6 On Friday we met early as we were travelling to an area north of Brno, to look at some woodland at higher elevation. The first site we visited was called Sopova (c20-30ha) and was beech dominated, situated in the middle of an extensive area managed for commercial forestry. Libor woke us and the students up on arrival by pointing out that this nature reserve was the best place in the Czech Republic for magic mushrooms *Psilocybe bohemica*! In this area, Libor described the relationship between *Armillaria ostoyae* and spruce. The Armillarias are not a problem for the native beech, but are for the non-native spruce (of which Libor said there was 100% 'infection' with significant mortality rates). With the native species it appears to be in a more natural balance. This site has had over 3000 species of fungi recorded from it as a consequence of 10 years of research. The reserve had been created in 1954 and the older cohort of beech was around 250 years old. We also visited another site nearby called Jeleni Skok (Red Deer spring), which Libor considers to be one of the best nature reserves in the state

forestry land ownership. This has had the dead wood recorded and contains 400m³ per hectare and is an excellent site for lesser spotted woodpecker.



In the afternoon we visited Železné Hory Landscape Protected Area, which covers some 900 square kilometres, although much of this is managed by commercial forestry. We visited one of the nature reserves called Polom, which was created in 1933 and covers some 18ha. This is situated in the middle of huge areas of commercially managed forests. The natural composition of this area is beech with fir (*Abies alba*), but very little of the fir is regenerating due to the quantity of deer, which eat the seedlings. There was once again lots of decaying wood fungi including *Hericium alpestre*. There was much discussion about the sustainability of such a small site, given that most of the beeches were in the final stages of their lives and very little fir was regenerating.

After our journey we then visited the university to see Libor's amazing exhibitions. He had constructed one exhibition with examples of many saproxylic insects and the holes they make and one with examples of the decayed wood and associated fruit bodies for many decaying wood fungi.

In his office he treated us to some alcohol which he had brought back from a trip to Vietnam which had *Ganoderma lucidum* in it! *G.lucidum* is cultured and 'farmed' there and produced for medicinal purposes. In the East it is used to heal a wide range of ailments including types of cancer. He said it was also used in drink as an aphrodisiac!

We travelled back to Prague on Saturday morning and parted ways. Ola and Vikki spent the night in Prague and explored the city, which is really beautiful and well worth a visit.

We had a fantastic week, with good food, company, beer, wine and trees! We are indebted to Jarek, who was an excellent host and we would like to return the favour many times over. Jarek organised the trip so that it was full of interest and we were able to give a little back through communicating the experience that we have built up in the UK and Sweden. We are also grateful to our enthusiastic guides, in particular Libor who introduced us to new fungi and taught us ably. All that remains to be said is "Czech it out for yourselves"!



Inonotus nidus pici

Vikki Forbes, Neville Fay, Ola Bengtson and Ben Rose