



Flourishing Nature of Vysočina

A photograph of a dense forest. Sunlight filters through the tall, thin trees, creating a dappled light effect on the forest floor. The trees are mostly evergreens, and the ground is covered with fallen leaves and low-lying vegetation. The overall atmosphere is serene and natural.

**Trees Grow on Earth
for the Well-Being
of Man**

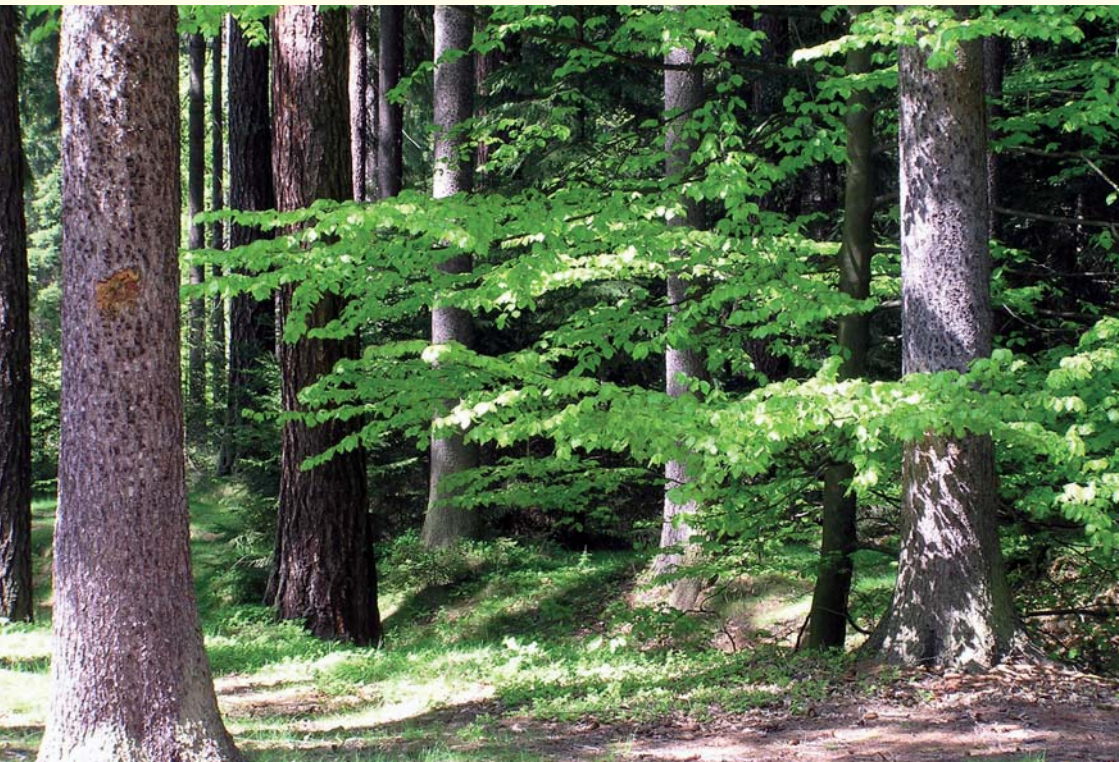


Trees Grow on Earth for the Well-Being of Man

Once you get to know Vysočina's healthy forests, you must fall in love with them, protect them and care for them. A few people realize that we, and only we, play a crucial role in creating an image of the forest as a provider of important functions for the man, plants and animals. The forests of Vysočina are attractive for recreation; they protect the secrets of river sources and cabin settlements; offer wide range of tree, plant, and animal species thanks to careful selection, support and selective elimination; and serve as a supplier of environment-friendly material. In order to continue this trend, traditional, sustained and devoted work of specialists – forest managers – is needed. Their task in Vysočina is clear – to pass on healthy and strong forests full of life to future generations.

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Member of the Vysočina Regional Council Responsible for Forest and Water Management







The Functions of Forests

Forests are classified by their primary purpose as protective forests, special purpose forests, and farming forests. Protective forests include those in unfavorable locations, high-mountain forests and forests in the dwarf-pine zones. From this group, we can only find forests in unfavorable locations in the Vysočina region (steep slopes, rock seas, ravines, peat bogs). On the other side, forests with special purpose are found all over the Bohemian and Moravian border region. This type of forests requires special forest management and is valuable for public. The most important are forests found in the 1st degree hygienic protection zones of water sources and in protective zones for sources of natural medicine and table mineral waters. Farming forests account for the largest area and comprise of forests not categorized as protective or special purpose.

Forests are classified by their natural character as follows: primeval forests, nearly natural forests and forests with modified nature composition. Forests can also be classified according to their shape: tall (trees grown from seeds), medium or mixed (trees grown from seeds and sprouts) and finally low forests often called “stump forests” (trees grown from stump sprouts). Most forests in Vysočina, as well as throughout the entire Czech Republic, are tall forests. As for the type of ownership, we divide forests into state, municipal, church, private, foundation, singular and cooperative kinds.



Woodland strawberry



Larch bolete

Did you know that...?

In the Region of Vysočina, 6.7% of forests are special purpose (13,634 ha).



Ownership Relations to Forests in the Vysočina Region

State forests	39%	78,839 ha
Forests owned by individuals	35%	70,859 ha
Municipal and city forests	16%	32,174 ha
Forest co-ops and companies	7%	14,950 ha
Legal entities	3%	5,815 ha
TOTAL		202,655 ha

Source NLP 2007 updated as of 31 Dec. 2007

Forests act as an essential landscape element that helps to maintain the stability of natural environment and is able to bind carbon, and therefore slow down the climate changing process.

Also the forests in Vysočina must fulfill the ever increasing demand for non-productive, so-called public functions, which include water-management, soil protection, landscape forming, climatic, and recreational roles. The favorable distribution of forests, their accessibility and the traditional popularity of forest visits in all seasons put high demand on their recreational function. In spite of certain negative effects, mostly caused by irresponsible forest visitors, free access to forests is understood as a significant public service of forest management and is also embodied in the Forest Act.





Forests and Water


Forests are one of the fundamental components of the environment. They have a major impact on the climate and water and soil conditions at a particular site. They also prevent soil erosion and provide natural habitat to many species.

The Czech Republic, and Vysočina in particular, is the “Roof of Europe”. From southwest to northeast, the region is bisected by the main European watershed between the North and Black Seas. Vysočina, abounding in healthy and dense forests, is a major water source area and water reservoir for the country’s largest residential areas, such as Praha (Prague) or Brno. The Švihov Water Reservoir on the River Želivka (most of its basin is located in Vysočina) is the largest water reservoir in the country and supplies water to nearly 1.5 million inhabitants. Many other rivers that are of national importance have their sources in the region: the Rivers Jihlava, Sázava, Svratka and Dyje. The Vír Reservoir on the River Svratka boasts the second-longest dam (76 m) in the country, exceeded only by Orlik on the River Vltava.

Did you know that...?

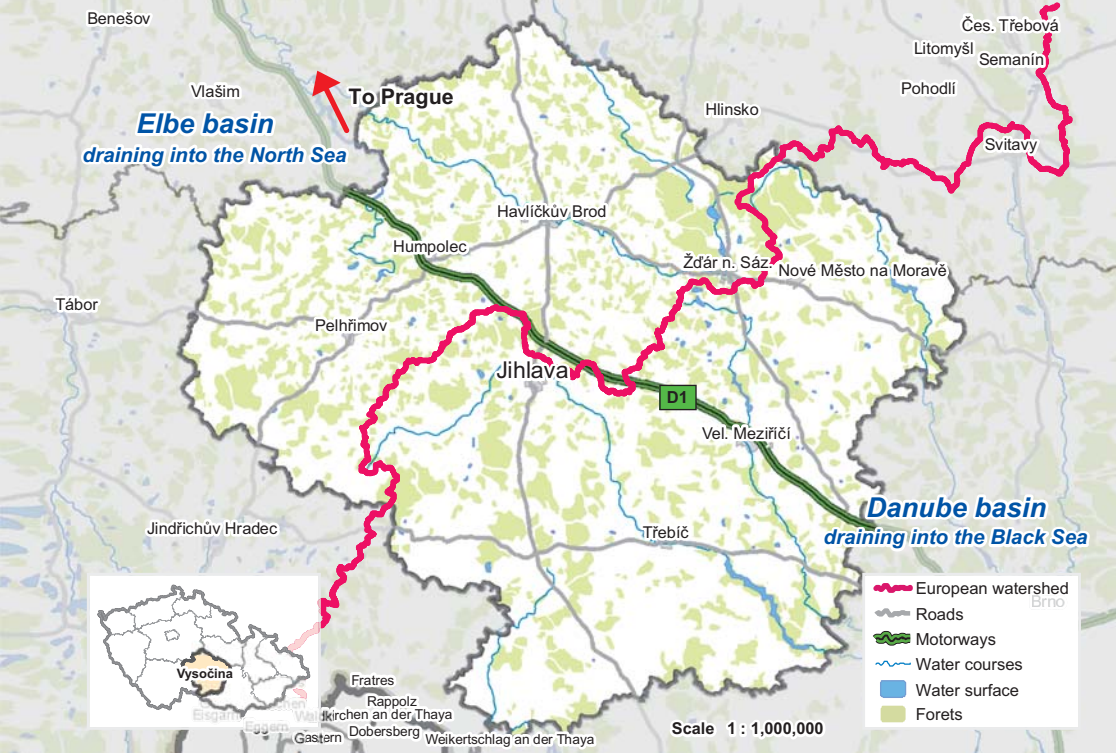
Other major water works serving as sources of fresh water in Vysočina include Hubenov, Nová Říše, and Mostišť.

Natural water reservoirs in Vysočina are supplemented by swampy forests, marshes, and peat bogs, which lend a truly inimitable atmosphere to the forests in the region. Also of note are man-made lakes – Babín in Žďárské vrchy, below whose dam is a living peat bog with the flesh-eating drosea; or the Na Pouťích pond system near Třešť, where unusually large colonies of amphibians, plants, and insects thrive, as well as around the Silver Spring, not far from one of the tallest hills in the Bohemian-Moravian Highlands, Křemešník.



European tree frog





Forests have an extraordinary capacity to retain water. Some of the water retained by a forest is gradually released – as underground water it springs up in sources, or flows into rivers through underground currents. Some of the water is consumed by the forest itself. And what about floods? Most of them occur during the spring thaw or during extraordinary precipitation events. Floods are best prevented by a landscape capable of retaining large quantities of water, which it then releases gradually, i. e., a natural landscape with healthy forests of all ages. The fact that the criticism of spruce forests is not always justified was proven by the 2006 spring flood in the Czech Republic.

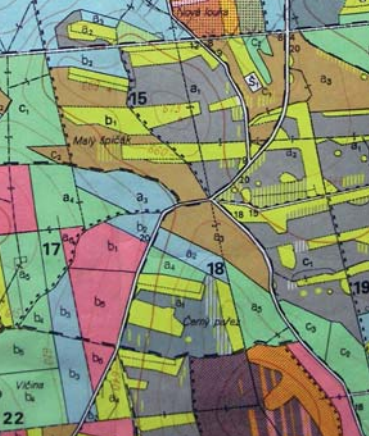
An example from practice: In 2006, the Czech Republic was struck by extensive flooding. A large supply of water remained in the form of snow in spruce forests, long after all of the snow had vanished from the fields and deciduous forests. In a situation when it was no longer possible to regulate the outflow from certain reservoirs in Vysočina during the flood, the relatively slow melting in spruce forests offered the only hope of the situation not worsening any further. The spruce forests retained the snow and allowed for its gradual melting, significantly contributing to preventing large-scale damage.

Did you know that...?

A mature birch tree has some 200,000 leaves, and on a hot summer day some 60-70 litres of water evaporate from them.

A low-angle, upward-looking photograph of a forest. Several tall, slender tree trunks rise from the bottom of the frame towards the top. The upper portions of the trees are filled with dense foliage in shades of bright yellow and orange, indicating autumn. The background is a clear, vibrant blue sky. The perspective creates a sense of height and grandeur.

Forests in Vysočina



Did you know that...?

The typical primeval forest in the Bohemian-Moravian Highlands is a mixed fir-beech-spruce forest with an addition of other woody species.

A forest is a complex ecosystem whose defining characteristic is that its plant component is dominated by tree-sized woody species. A forest comprises a biotic element (plant and animal) and biotope (the environment). Simply put, a forest is an area with a high density of trees whose environment and land are designated to fulfill forest's role.

In the Vysočina Region, forests make up 30% of the overall area, with the highest density of forested land being in the Žďár area, around Nové Město na Moravě and Bystrice nad Pernštejnem.

Man has greatly influenced the composition of species in contemporary forests, by having farmed them in a planned manner for over 200 years. As for deciduous trees, beech and oak trees are represented in Vysočina the most, but other species can also be found – maple, linden, alder, willow, birch, Douglas fir, silver fir, giant fir and other trees.

Composition of forests in terms of species in % Vysočina

Norway spruce	73.5
Scots pine	11.2
European larch	3.1
European beech	2.9
Sessile oak and pedunculate oak	2.0
Silver birch	1.3
Other tree species	6.0



Czech Republic

Norway spruce	52.8
Scots pine	17.0
European larch	3.9
European beech	6.9
Sessile oak and pedunculate oak	6.7
Silver birch	2.8
Other tree species	9.9





Below the trees (especially the deciduous ones) is a bush level, which is often missing in highly-densed spruce forests. Below the bush level is a plant level, which is commonly formed by grasses, raspberry, hoary ragwort, epilobium, blueberry growth, mosses, ferns and other kinds of plants in our conditions.

Did you know that...?

Fir trees in Vysočina can grow up to 50 m? A tree tall like this would have the same height as a 17-floor high-rise.

From the animal kingdom, insects are most represented, both in terms of the number of species and number of creatures. In Vysočina, we most frequently encounter forest ants, beetles, wasps, and butterflies. Other kinds of insect usually escape our attention.

Chrysolina fastuosa



Small tortoiseshell





Yellowhammer



Eurasian eagle-owl

Birds are conspicuous forest inhabitants: their singing can be heard in the forest from spring to autumn, all day long. Let us mention some of them: nuthatches, treecreepers, pigeons and jays, nutcrackers, but also spotted woodpeckers, woodpeckers, finches, warblers, various kinds of titmouse and many other species. If you are lucky, you can see certain diurnal and nocturnal bird predators in Vysočina – a common buzzard, hawk, tawny owl or eagle owl.

If we are quiet enough, we can see roe deer and rabbits in the forest, and also, in some locations, wild boar, fallow deer, and even red deer. Rare are encounters with foxes and badgers, which prefer avoiding people altogether. Many other animal species live in Vysočina's forests – rodents, small carnivores, hedgehogs, amphibians and others. It just depends on our behavior and knowledge, as to which species we discover when visiting a forest.

The area of the entire region is divided into hunting districts, in which hunters care for game. The minimum area of a hunting district is 500 ha of continuous hunting grounds. Hunting districts are classified according to the nature of the prevalent land, into forest, field, and mixed. In our region, mixed and forest hunting districts prevail.

Did you know that...?

The common vole accounts for the largest part of the food eaten by a common buzzard. In one year, a buzzard consumes over two thousand voles.

Common buzzard



Mufflons



The hunting and preservation periods are set for each animal species. Rare animal species, such as the European otter, Eurasian lynx, European beaver, black grouse and all birds of prey are protected all year round. On the other hand, wild-boar piglets and one-year old young pigs and foxes can be hunted all year round. Game can only be hunted by the holders of hunting licences, who hold a permit for the given kind of animal and the given hunting district.

In winter, hunters feed the animals. They also care for their health. All animals that have been shot are duly inspected, and if infection is suspected, they undergo a veterinary examination. All wild boars that have been shot and any animals that have died by other means are subject to a compulsory veterinary inspection.

The largest game-preserve in the region is the Kralice Game-preserve between Náměšť nad Oslavou and Kralice nad Oslavou. It has an area of 282 ha.

Occurrence of specially protected animal species

The number of specially protected animal species in the Vysočina Region has grown in recent year.

In the past, the Vysočina Region supported selected game management activities and the breeding and training of hunting dogs and hunting birds. These activities are now endorsed by the Ministry of Agriculture.

Did you know that...?

There are 521 hunting districts registered in Vysočina, and 17 of them are game-preserves.

Did you know that...?

The Roštejn Game-preserves is one of the oldest in the country. It was established at the end of the 16th century, during the rule of Zachariáš z Hradce. It ceased to exist after 1945, and thanks to the care of the forest management company Lesy České republiky, s. p., about one-third of its original area was renewed in 2006.

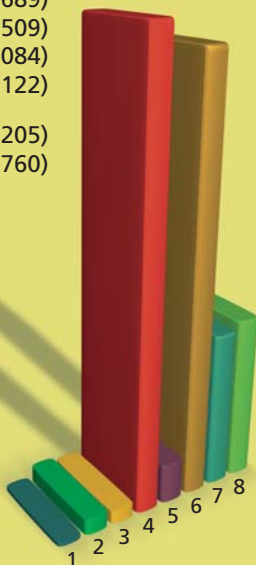


Wildlife count Vysočina 2007

1	Red deer	247	(27,812)
2	Fallow deer	1,061	(22,494)
3	Moufflon	868	(18,689)
4	Roe deer	29,619	(296,509)
5	Wild boar	2,634	(48,084)
6	European hare	28,107	(305,122)
7	Common pheasant	10,484	(259,205)
8	Wild duck	11,022	(104,760)

*In brackets – number of units
in the Czech Republic.*

*Source: Vysočina Regional Authority
and Ministry of Agriculture*



Wild boar



Common pheasant

Protected wildlife count

	2002	2007
1 European beaver	0	16
2 European otter	246	1,094
3 Common raven	1,155	1,636
4 Black grouse	18	9

Source: the Vysočina Regional Authority



Fallow deer



European otter



The Forest School

Do you want to learn more about what is happening in a forest? In that case, we recommend taking a walk with a local forest manager or forestry expert. They know all of the forest's secrets, inhabitants, and plants. They will explain to you when and why a forest is cut, how it is renewed, cultivated, and what all needs to be done for small trees to grow up into a high-quality and healthy forest that is able to fulfil all of its functions.

Regular forest-education events organised by the forest management company Lesy České republiky, s. p. (The Forests of the Czech Republic, State Enterprise), called "A Day with Lesy ČR", as well as regular lectures by forest educators in schools, contribute to the promotion of forests and increasing of awareness.

Getting to know the forest environment is one of the activities offered in Vysočina by the Chaloupky Educational Centre (www.chaloupky.cz). Its main purpose is to provide education about nature and increase the respect and responsibility of man towards the environment, himself, and others. The centre organises one-day field events as well as extended stay programmes for schools, teacher education, summer camps, and weekends for parents with children.

Welcome to our forests for fun and learning!



Did you know that...?

You can see the life of forest ants up close near Velké Meziříčí, thanks to the Šebeň Nature Trail. Some 900 million ants live there. 1,200 ant hills built by forest ants constitute a unique site, with the largest ant population in the country.



The Vysočina Region is interwoven with dozens of nature trails that provide a large volume of information, advice, and instructions about how to observe the environment around us and admire things that we have never noticed before. For example, in the forest park on the edge of Humpolec, you can go on the 10 km Březina Nature Trail, which will lead you not only to an original gold-panning site and the ruin of the Castle Orlik, but will also allow you to intensively explore the forests which you will be passing through. The forest ecosystem of the Pacov Hill area, in the western part of the Vysočina Region, can be seen and explored on the Landscape Mosaic Nature Trail. You will be charmed by springs during a walk through the forests around Jinošov. The list of nature trails in the Vysočina Region can be found at www.region-Vysočina.cz.

Example from practice:

The students and teachers of the Secondary Professional and Secondary Vocational School in Třešť have created an educational arboretum. They have divided it into individual parts that are naturally linked to each other. In these, some 1,500 of the most important plants and woody species are presented in comprehensive thematic units. All of this is supplemented with a nature trail that provides basic information about plants.

Did you know that...?

The oldest educational nature trail in Vysočina – the Čerínek Nature Trail – has been informing the public for 25 years about interesting facts concerning the climate, fauna and flora of the region, and also (as one of only a few) about geomorphology. The most recently opened nature trail is around Roštejn Castle and focuses on game management with a demonstration of game-rearing in a game-preserve.





Forests Employ Us

Every ten years, management plans (forest management plans and forest management outlines) are drawn up for all forests in the country. These, in addition to the descriptions of the condition of a forest and supply of wood, recommend to the forest owners the optimum management method and subsequent renewal.

Activities in the forest alternate throughout the year. In the winter, primarily planned logging is done, as well as the collection of the seeds of coniferous trees and the preparation of clearings for spring planting. In early spring, the wood from unplanned winter logging is processed, in order to prevent the spreading of pestilent insects. Spring is the time for planting new forests and for work in forest nurseries. In summer, forest owners are kept busy by protecting forests from pestilent insects, protecting young growth, and thinning young forests. In autumn, forest cultures are protected from animals, thinning is finished, and trees marked for planned logging.



Did you know that...?

According to National Forestry Programme, the long-term average annual amount of timber logged and sold in the Vysočina Region ranges from 1.0 – 1.3 million m³.

Forests make up 30.4% of the area of the Vysočina Region. In terms of the annual share of planned logging, Vysočina is among the first three in the country, after the South Bohemian and Pilsen Regions.

In Vysočina, wood is an important source of livelihood, next to agriculture. Given the rural nature of the region, the wood processing industry has had a long tradition in Vysočina and is a popular sector. In 2008, more than 4,500 people in the region worked with wood and around wood.

Wood accompanies man since birth (crib, bed, toys) throughout his life, until his death (coffin). Wood can be used to build a house and is the foundation of thousands of products for everyday use. It is not only used for making furniture, windows, doors and roof structures of our houses, but also for children toys, picture frames, canes, handles, boats, stirring spoons, and toothpicks. Without wood, there wouldn't be no paper, books and textbooks, newspapers and magazines, calendars, maps, and packaging, but also no banknotes and no toilet paper. Most natural products boast the advantage of easy recycling, which is why they do not burden the environment once their useful life is over or once they have fulfilled their purpose.



Did you know that...?

The largest employers in the wood processing industry in the Vysočina Region include Dřevozpracující družstvo (Lukavec), SAPE-LI, a. s. (Polná), Kronospan CR, spol. s r. o. (Jihlava), and the largest saw-mill in the country, Stora Enso Timber Ždírec s. r. o. (Ždírec nad Doubravou).





Did you know that...?

The forests we plant today will be cut down by our grandchildren.



Between 2004 and 2008, the Vysočina Region provided over 95 million CZK to forest owners and tenant farmers in support of forest management. Most of these funds helped in the renewal, securing, and raising of forests in locations not rich in nutrients, and in the obtaining of environmental technologies that are environment-friendly.







Vysočina's Trees, Forests, and Wood in the Czech Book of Records



The greatest number of boletus found

Petr Janíček from Jihlava found 585 edible boletuses (*boletus edulis*) in just 80 minutes in August 2006 while walking the forests around Černov in Pelhřimov area. The family then spent several hours cleaning and processing such a huge number of mushrooms.

The oldest tree

One of the oldest trees in the Czech Republic is a red yew in Vilémovice in the Havlíčkův Brod area, the age of which the conservative estimates of experts put at 850 years; however, some estimates claim that the tree is far more than a thousand years old.

The most massive tree

The most massive tree in the Žďárské vrchy protected landscape area is a linden tree in the cadastral district of Telecí. People call it "Luke's Singing Linden Tree" (it is estimated to be 600 years old). The circumference of its trunk is a respectable 1,160 cm.

Did you know that trees do well in Vysočina?

The fifth annual national survey "The Tree of the Year in 2006" was won by the linden tree at the Sádek Castle, near Třebíč. One year earlier, in 2005, the Tree of the Year for the Czech Republic was the majestic yew, with many legends woven around it, that grows on the slopes on the border of the Vysočina Region and South Moravian Region, by the Castle Pernštejn. The tree of 2003 was the beech by St. James' Church in Jihlava. The trees nominated for the survey held by the Partnership Foundation become popular and their existence emphasises the need to protect nature.



Wood from forests in many respects weds with the skill and art of man. This is documented by some noteworthy exhibits at the Museum of Records and Curiosities in Pelhřimov. Its exhibition "Golden Czech Hands" displays, for example, an entirely unique collection of 90 exhibits made of glued matches. They include functional guitars, violins, mandolins, vases and pictures – and all that made out of entirely commonplace matches. The figures below document something that can be seen nowhere else in the world:

The entire set comprises:

Total number of matches:	571,871
Total number of heads:	248,344
Total number of match-boxes used (with an average count of 45 matches per box):	18,227
Total production time:	63,310 hours,
which is 7 years, 2 months, 22 days and 22 hours of net work time.	

The largest coat hanger

A truly large closet would be required for the record-size wooden coat hanger. It is 451 cm long and weighs 45 kg. It was made in 1992 for the Pelhřimov Museum of Records and Curiosities by the Počátky cabinetmaker František Holický.

The largest wooden dice

A gigantic wooden dice was made in 1994 by the corporation "Podzimek a synové", from Třešť (Vysočina). Six kinds of wood are used in it, its dimensions are 79 x 79 x 79 cm, and its weight is truly noteworthy – 164 kg.



A functional wooden bicycle and the only one of its kind in the world

On the third floor of the Pelhřimov Lower Gate, the home of the Museum of Records and Curiosities, you can see something that they have nowhere else: a functional bicycle made completely of wood. Not only that its wheels, frame and handle bars are wooden, but surprisingly, also the chain, break, and pump. Not only that the bicycle works, but no other material was used in its production.

Smallest tree seeds

Larches have the smallest seeds of coniferous forest trees. There are 222,000 of them in one kilogram. Overall, birches have the smallest seeds. They are so small that to get one kilo, you would need to gather 6,600,000 of them.



Seeds of the European larch



Leaf and seeds of the silver birch



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