Elms - Fascinating Facts

Here are some facts about elms that we've drawn together. This information only touches the surface of the Elm’s very interesting and rich past. There is much more information to be found on the internet so why not have a search? Alternatively, ask around your local community, or if you know of a local expert, get them to tell you more about your sapling’s fascinating history. Do let us know what you find out – email elms@conservationfoundation.co.uk and we will add your ‘fascinating fact’ to this list.

• **BBC News Piece**
  There is a very good, short BBC news piece about The Conservation Foundation’s ‘Great British Elm Experiment’ on the Conservation Foundation’s website [www.conservationfoundation.co.uk](http://www.conservationfoundation.co.uk). Look for ‘Are Elm Trees making a Comeback’ in the Press Coverage Section (BBC Breakfast, September 2009).

• **Identifying Elms**
  Look at the leaves. Elm leaves are usually oval and have a jagged, saw-toothed edge. Each saw-tooth has a second smaller tooth (sometimes called double serrated). The base of each leaf isn’t symmetrical - one edge of the leaf is higher up the stalk than the other. Have a look at the following leaflet [http://www.nhm.ac.uk/resources-rx/files/elm-map-10pspread-3648.pdf](http://www.nhm.ac.uk/resources-rx/files/elm-map-10pspread-3648.pdf) - among other facts, this leaflet shows how to identify the Ulmus glabra (Wych Elm), Ulmus minor (smooth leaved) and ulmus procera (English elm).

• **How did Dutch elm disease get its name?**
  Dutch elm disease got its name because it was discovered by scientists in Holland in 1917. The seven Dutch scientists who first identified Dutch elm disease were all women.

• **What happened when Dutch elm disease struck?**
  Dutch elm disease hit England in the 1960’s and during the 1970’s more than 20 million elm trees succumbed to DED. This meant that 90% of native elms were lost to the British Countryside.

• **How does a tree get Dutch elm disease?**
  Put simply, Dutch elm disease (or DED) is caused by a fungus. After the disease is contracted, spores rapidly reproduce and spread toxins throughout the tree. The fungus blocks the water-conducting or vascular system of the tree preventing water and minerals from reaching the branches and leaves. The leaves wilt and eventually the tree dies.
The fungus attacks various species of elm. It can kill a tree within a few weeks or it can kill it gradually over a period of years. Some younger trees have some natural resistance to DED. However, this resistance tends to wear off after 15-20 years.

When an elm tree detects the presence of the fungus, it produces a number of defensive compounds. ‘Mansonones’, for example, are toxic to the DED fungus. However, left to its own devices, a tree cannot produce enough to fight off the disease.

- **How is Dutch elm disease (DED) spread?**
  
  The elm bark beetle is by far the most important factor in DED. These tiny insects lives revolve around elm trees. The female beetle tunnels into the tree between the bark and the wood and lays its eggs. When the eggs hatch, the larvae tunnel further into the tree in order to feed before emerging as mature beetles.

  Adults feed in the crown of the tree, moving from tree to tree before breeding again. If a beetle breeds or feeds in a DED-infected tree, the sticky spores of the fungus become attached to its back. When the beetle moves to a healthy tree, so too do the spores and DED spreads from tree to tree.

- **The oldest Elms?**
  
  Most elm species are relatively fast growing and historically the maximum age for an elm in the UK would appear to be c.400 years old. There is an Elm recorded on the Ancient Tree Hunt’s Website (www.ancienttreehunt.org.uk) - located in the middle of the public car park in the Market Square of Stony Stratford, in front of The Crown Inn. A plaque by the tree reads: ‘*John Wesley visited Stony Stratford five times and it is reputed that at least once he stood beneath this tree and preached*’. If we presume the tree was a significant tree to rally people under when Wesley (1703-1791) preached, this may be 300-350 years old and therefore the oldest elm we can put anything like a date to. This tree is 7.6m in girth. (Photos of the tree can be seen at www.ancient-tree-hunt.org.uk/recording/tree.htm?tree=427d64a0-5a09-4c41-92c8-4cef4edf087b).

  The two largest surviving English/Field Elms in Europe are the Preston Twins, now within the Coronation Garden of Preston Park, Brighton. Both trees when last measured were 6.38m in girth and very hollow. One tree is open and you can walk inside, whereas the other has a small opening top and bottom. Within living memory when this had a smaller opening a boy climbed up into the tree and dropped into the hollow trunk from above, where he became trapped. Eventually his cries were heard and Brighton Fire Brigade rescued him! It is suggested these trees must be 250-300 years old.

  Historically there have been some very large elms recorded such as one 8m tree on Hampstead Heath in London which is said to have had a staircase inside with 16 windows, leading to a turret!
• **The largest Elms?**
The largest Wych Elm (*Ulmus glabra*) is 7.03m girth and stands in a field at Brahan, Highlands. It may be hollowing but appears sound with a full crown and may be no more than 200-250 years old.

The largest historic tree reliably recorded in Britain was an elm growing in a field at a place called Field near Uttoxeter. It was measured by ten witnesses when felled in 1636. The trunk was 7.85m girth half way up. (Although JC Loudon’s account of this tree suggests it could actually have been within Bagot Park instead).

A huge elm with a girth of 8.61m blew down in 1911 on the College meadows Oxford and was claimed to be 300 years old.

• **Elms in Mythology**
There are many references to Elms in Mythology. Here are just a couple of examples.

In Greek mythology, the hero Orpheus, having rescued his beloved wife Eurydice from the Underworld by enchanting everyone there with his harp music, paused to play her a love song, at which spot the first elm grove was said to have sprung up.

In Celtic mythology elm trees were also associated with the underworld. They had a special affinity with elves which were said to guard the burial mounds, their dead and the associated passage into the Underworld.

• **Uses for Elm Wood**
The elm's wood bends well, and indeed the 'wych' in wych elm refers to its wood being pliant. This characteristic makes elm wood largely unsuitable as a building material, and it is not known for making good fuel. However, elm wood withstands wet conditions very well, making it a popular choice for the building of boat and barge hulls, bridge foundations, and cartwheels. Hollowed-out elm used to be used to make urban water pipes before the introduction of metal ones.

Elm wood was traditionally used to make coffins. Perhaps people who knew elms well were reminded of their own mortality when remembering the elm's reputation for dropping large boughs without warning on otherwise still, warm days; "Elm hateth man, and waiteth" as the old saying goes. Beware the Elm!

• **Uses of Elm Wood in Sports**
The Elm's pliancy was put to use in a variety of ways. In Scotland the stick used to play shinty, called a caman, can be made from a variety of woods, but elm was a popular choice as it often had a natural bend already in the wood. Failing that, it could easily be heated, bent and set to the required shape.

Mediaeval Welsh archers often made their long bows from elm wood.
• **Elms in the Landscape**
  Elm trees in Britain can grow to become some of the tallest and largest native trees. They often had very specific customs and folklore attached to individual, named trees such as the Tenor, Bass and Alto elms on Humberside, or the Dancing elms of Devon around which May Day dances were held (these trees have all sadly succumbed to Dutch elm disease). As well as their widespread use in hedges, their stature made them imposing landmarks and boundary markers, and travelling preachers and judges would often ‘pronounce’ from beneath them.

• **Elms in Art**
  The Elm’s large distinctive shape feature prominently in many English pastoral paintings by Constable (eg his famous ‘The Haywain’ painting) and his contemporaries.

• **Elms and medicinal cures**
  In the past, people looked to elm for medicinal cures. The inner bark was especially efficacious when chewed or boiled into a liquor to treat colds and sore throats, while the boiled bark was also used to treat burns.

• **Elms and poets**
  Poets and writers who mention elms in their works include: Oscar Wilde, Virginia Wolfe, E.M Forster, and Robert Browning. There are many more references in poetry and stories ...

• **Elms and place names**
  Many UK streets and houses are named after elms – ie Elm Road, Elm Street, Elm Avenue, Elm Grove, Elm Close, Elm Crescent, Elm Lane, Elm Square and Elm Place. There’s even a village in Cambridgeshire called Elm and many primary schools seem to have ‘elm’ classes!

• **Elms as hosts to fauna and flora**
  Elm trees are home to a huge amount of wildlife, including butterflies, caterpillars, moths, beetles, lichens, mosses and fungi. Refer to the Elm Map leaflet again for more information: [http://www.nhm.ac.uk/resources-rx/files/elm-map-10pspread-3648.pdf](http://www.nhm.ac.uk/resources-rx/files/elm-map-10pspread-3648.pdf)

  Elms play host to two particularly rare and attractive moths and butterflies. The **White-spotted pinion moth** and the **White-letter hairstreak butterfly**.

References

With grateful thanks to David Alderman, Director, the Tree Register, who provided many of the facts and figures relating to ancient elm trees.

2. [http://www.ukbutterflies.co.uk/species.php?species=w-album](http://www.ukbutterflies.co.uk/species.php?species=w-album)
3. [http://www.treesforlife.org.uk/forest/mythfolk/elm.html](http://www.treesforlife.org.uk/forest/mythfolk/elm.html)
4. [http://www.nhm.ac.uk/resources-rx/files/elm-map-10pspread-3648.pdf](http://www.nhm.ac.uk/resources-rx/files/elm-map-10pspread-3648.pdf)