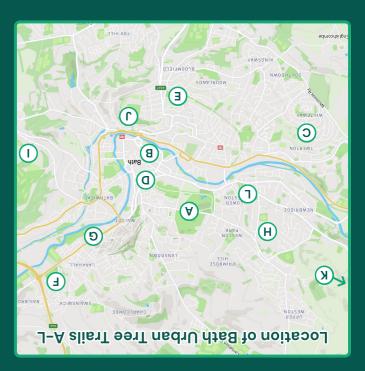
Map and website designed by Joseph Lavington.

Katrina Kelly, Andrew Veale, Robin Barnes, University of Bath, Bathscape Landscape Partnership, Grant Associates, Street Nameolate Co.

Lucy Bartlett, Fiona Bell, Antonia Johnson, Joseph <u>Lavington, Helen</u> Schoffeld, Hugh Williamson with support from:

Thank you to all of those who have produced this tree trail:





## Tree Trail I: Claverton Campus University of Bath

Bath is a UNESCO World Heritage City with six attributes of Outstanding Universal Value, including the green setting of the city. There are many significant trees – in the parks and in the streets – which contribute indirectly to the World Heritage status and the wellbeing of the community.

Here is one of our Urban Treescape trails in digital and map form, where we share a selection of trees on the University of Bath campus and part of the National Trust Bath Skyline walk. We invite you to follow our trail and enjoy the shapes and colours of each tree – their flowers, fruits, seeds, leaves and bark – and learn something about each one.

A digital map is available at: bathurbantreescape.com







Able to thrive in very polluted atmospheres and tolerant of compaction, this was for a long time the most frequently planted tree in London. Of the two trees here, the trunk and lower branches of one is covered in ivy. This climber doesn't harm the tree and provides food for insects and protection for small birds.





Spruces can be identified by their downward-hanging cones and by their needle-like leaves, which are attached to the twig by tiny 'pegs'. The narrow, spire-like habit has evolved to shed winter snow. The Serbian Spruce is now classed as endangered because its wild population is confined to just 60 hectares in the Balkans.





Neither a type of Box tree nor an Elder, this is, in fact, a Maple. It is unusual in being 'dioecious', meaning it has male and female flowers on different trees. Male trees have pinkish flowers hanging downwards on threads in the spring. Pollen from these is dispersed on the wind to fertilise flowers on female trees, like this one. Winged seeds (samaras), typical of maples, develop on this tree in summer.

## PAPER-BARK MAPLE





A small, neat Maple from China, grown for its glossy orange-brown peeling bark and its spectacular red-pink autumn foliage. There are several examples of a similar age planted throughout the campus. Like *Acer negundo* this is a trifoliate Maple, meaning it has three leaflets to each leaf.

## © CAUCASIAN WINGNUT

Pterocarya fraxinifolia



The leaves and catkins of this tree are equally long and equally spectacular – both can grow up to 50cm. The catkins mature into winged nutlets, which gives the tree its name. Its vigour is also expressed through the numerous suckers – vertical shoots growing from the roots. If you look around you'll find suckers wherever the lawnmowers cannot reach.

# DAWN REDWOOD, SWAMP CYPRESS Metasequoia glyptostrobo-

ides, Taxodium distichum



Most conifers are evergreen, but these two cypresses are

both deciduous, meaning they lose their leaves over winter. The Swamp Cypress, from the south-western US, has shorter leaves that grow on alternate sides of the shoot. The Dawn Redwood's leaves are longer, wider, and grow in opposite pairs along the shoot. It was originally known only from fossils but, to the surprise of botanists, was found growing in China in the early 1940s.

## CORK OAK Quercus suber



This is an evergreen Oak, native to Portugal and the shores of the Mediterranean. When grown as a crop, the bark is stripped every 8 to 12 years for its cork, to make bottle stoppers and other items. The tree is closely related to the Turkey Oak and may be crossed with it to create species such as the Lucombe Oak, which shares characteristics of both parents.

## © COMMON BEECH

Fagus sylvatica



A number of old beech trees along this avenue, having become dangerous, have been left as 'standing dead wood' about 5m high. While they decay through fungal action they provide food and shelter for beetles and other invertebrates, which in turn feed birds and small mammals.

## HORSE CHESTNUT

Aesculus hippocastanum



The Horse Chestnut, native to northern Greece and Albania, was introduced to Britain in the early 1600s. When fully grown it is perhaps Britain's most spectacular flowering tree. One of the branches of this example has grown down to the ground and rerooted. This is a means of propagation, called 'layering'. As the roots develop the original branch will eventually rot away, leaving a new tree a few metres from the parent.

# QUARTET OF VETERANS National Trust land



These four veteran trees stand in what is known as 'wood pasture' - an area containing both trees and grazing cattle. The closest tree to the stile is a Sycamore - a type of Maple. The two smaller trees in the middle are Field Maples. The furthest tree, with the fattest trunk, is a Common Oak. Look closely at the bark on the trees - its texture and colour, whether it splits into ridges, plates or squares. With practice, it is as easy to identify many trees from their bark as from their leaves.

# 30-YEAR-OLD WOODLAND National Trust land



# This one hectare woodland was planted in memory of a young couple who died in 1997. One of the couple came from Bath: a plaque on a stone memorial gives more details. There is a mix of native species, including Oak, Hawthorn, Goat Willow and Holly. The close planting helps control the undergrowth, as do the grazing cattle. If left to

develop naturally, the wood

would probably become

# dominated by oak or beech trees. COMMON BEECH

Fagus sylvatica National Trust land



This characterful old beech marks the northern tip of the wood. The area around the trunk has been trampled by cattle – who enjoy its shade – and there is evidence that people enjoy climbing it too. The north side of the trunk (opposite the wood) bears deep scars dating back many years – perhaps from machinery or a fence. The tree is growing 'callous wood' which will eventually cover over the wound.

# Sambucus nigra National Trust land



A native shrub or small tree that seeds itself in any crevice it can find – as here, next to some rocks. Both the white flowers and the dark purple fruits can be used to flavour cordials. The twigs are hollow and can be made into whistles. Elder has many associations with folklore and the occult: Harry Potter and the Elder Wand was the original title of the final book in that series.

#### WESTERN RED CEDAR

Thuja plicata



Although known as a 'cedar' in the timber trade (it is very rot-resistant) the Western Red Cedar is a member of the Cypress family originating in the Pacific Northwest of America. Recognisable from its small, elongated cones, the flat sprays of foliage smell of pineapple when crushed The leaves are tiny scales whose growth pattern along the twigs resembles plaited rope ('plicata' is Latin for plaited or braided).

## Ulmus sp.



Until the 1970s, mature elms were a familiar feature of the English landscape. Since then Dutch Elm Disease has killed, and continues to kill, nearly all large elm trees. The disease is a fungus transmitted by beetles. It was first studied by Dutch scientists in the 1920s. Several disease-resistant elm varieties have since been propagated, of which these two trees – 20 or 30 years old – are examples.

#### © COMMON YEW Taxus baccata



Yews are one of only three conifers native to Britain. They grow slowly and have remarkable powers of regeneration – some churchyard yews may be over 3000 years old and are amongst the oldest living organisms. The wood is hard, dense and springy and was used for longbows by medieval soldiers. Today yew trees provide two drugs used in cancer treatment: docetaxel from the leaves and paclitaxel from the bark.

# ALDERS Alnus incana, Alnus glutinosa



Two different species of Alder have been planted on adjacent lawns. The first pair are Grey Alders, which have pointed leaves with a serrated edge. Further on is a small group of Common Alder, native to Britain. They have roundish leaves, sometimes with a shallow notch at the tip. Alder wood makes the best charcoal for gunpowder.

## BLACK WALNUT

Juglans nigra



This is an American Walnut, named for its bark, darker than that of its European cousin (an example of which grows a little further along the road). It is grown commercially for its nuts and its dark, patterned, high quality timber. The pinnate leaves are late to appear in spring but are a beautiful yellow colour in autumn.

## **KATSURA TREE**Cercidiphyllum japonicum



A beautiful but unusual tree originating, as its scientific name suggests, in Japan and China, where it is one of the largest native hardwoods. In Japan, it may be used to make gobans – the boards used for the game Go – when kaya wood (*Torreya nucifera*) is unavailable. You may notice it in autumn by the scent of toffee apples.

## HUNGARIAN OAK

Quercus frainetto



Native of S. Italy, the Balkans, Rumania, and parts of Hungary, this Oak has lobed leaves like the Common (English) Oak, but the leaves are longer, broader and have more regular rounded lobes. Where this tree has space to grow it will eventually form a very large, impressive crown, more regular than our Common Oak.

# COMMON HORNBEAM Carpinus betulus



Hornbeam is a British native, found in ancient woodland as well as parks, gardens and as a hedging plant. At first glance its oval leaves and smooth bark can be confused with beech, but the more pointed and pleated leaves are distinctive. Older trunks have rippling swellings that can resemble muscles under skin. Hornbeam literally means 'hard wood'.