

Tree Identification Guide



Treezilla
The monster map of trees

Help us build the **Monster Map of Trees**

Treezilla is the Monster Map of Trees! When you've identified your tree, why not see if it is mapped on Treezilla, and if not, add it to the map. You can see the map, make an account and add trees at www.treezilla.org or download the Android or iPhone app.

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How to use this guide

This key uses leaves as the principal means by which to identify a tree, so it will work best when the tree is in leaf (i.e. Spring to Autumn). Through the winter you may find fallen leaves that you can use.

Leaves can vary in size, colour and shape even when taken from the same tree, so we recommend that when trying to identify an individual tree you take a number of leaves from the same tree.

This resource provides identification guidance for 53 of the most common urban tree species in Great Britain and Ireland. If you are unable to find your species in this guide then you can get additional identification help using one of the resources listed below.

Trees in this guide

This guide includes 53 species. These have been selected as the most common from a database of over 1 million urban trees from across the UK. Because the types of trees planted vary a lot from one place to another, you may find in your neighbourhood that there are trees that aren't listed in this key.

At various points in the key you will be asked 'Is it one of these commonly occurring species?' Potentially many different types of trees that could be included. But we have only shown you the most common ones.

Identifying urban trees

There are about 35 native tree species in the UK (depending on what you define as a tree) but many more species and varieties are planted in towns and cities. Lots of these are man-made cultivars or hybrids that are selected because they are attractive or especially well suited to growing in urban conditions. Many of these can only be reliably distinguished by experts or with detailed field guides or keys. If you are using this key you are probably relatively new to identifying trees, but don't be put off by the variety of trees that might exist!

Getting an accurate identification to genus or species is more important than recording the precise variety. Some types of tree, such as willows, apples or ornamental cherries can be very difficult to distinguish, so in this guide we help you to record just the genus, and not species or variety.

Naming trees

Trees, like other plants, have common and scientific names. Because common names vary from place to place, the scientific (or 'Latin') name is usually regarded as the definitive name for a tree. The scientific name is made up of several components. You can think of it like a person's name in reverse: a person's surname tells you who they are related to, and their first name identifies them as an individual.

For scientific names it's the other way round: the first part of the scientific name specifies the Genus, all plants in the same genus are related. This is followed by the Species name, which distinguishes the different species. For example, the trees Sycamore (*Acer pseudoplatanus*) and Norway Maple (*Acer platanoides*) are in the same genus, Acer, but have different species names.

Varieties or cultivars are usually specified by a third part of the name. Hybrids can be indicated with an x between the genus and species name, or in the odd case of Leyland cypress (*x Cuprocyparis leylandii*) at the start. The scientific name is always written in *italics*, with the genus name beginning with a capital letter and the species name a lower-case letter.

Of course you don't need to learn the scientific names, and many people find it tricky to begin with, but it can help to start to remember which species are related, and so which have similar characteristics.

Additional resources

Free to access, online resources:

- **Pl@ntNet**: Pl@ntNet is an application that allows you to identify plants simply by photographing them with your smartphone. It uses artificial intelligence to guess the plant species based its database of images. www.plantnet.org
- **iSpot**: a citizen science platform for biodiversity aimed at helping anyone identify anything in nature. A large community of experts will help you identify things based on your photos. www.ispotnature.org
- **The Woodland Trust's 'Tree ID' app**: A smartphone app, available for iPhone and Android users, covering the UK's native trees and some common non-natives. Visit the Apple AppStore or Google Play Store to download.
- **The Natural History Museum tree identification guide**: A detailed key focusing on urban trees. www.nhm.ac.uk/content/dam/nhmwww/take-part/identify-nature/tree-identification-key.pdf

Books:

- *Tree Guide: The most complete field guide to the trees of Britain and Europe* by Owen Johnson and David More. Published by Collins in 2006. ISBN: 0007207719.
- *What's that tree?* by Dorling Kindersley in 2013. ISBN: 1409366553
- *Concise Tree Guide* by The Wildlife Trusts. Published by Bloomsbury in 2014. ISBN: 147291032X.

About this guide

This guide was developed by the Field Studies Council (FSC), The Open University, Forest Research, TreeWork Environmental Practice and Natural Apptitude as part of the COMMUNITREE project, funded by the Geospatial Commission, as a resource to support tree identification when using Treezilla. The structure of this guide builds upon the identification guide of the OPAL Tree Health Survey www.opalexplorenature.org/identification that was developed by FERA, Forest Research, Imperial College London, FSC, University of York and University of Plymouth.

This is a simple key to identifying some of the most common urban tree species in the UK. We have tried to find a balance between making it simple enough for beginners and including enough species to allow you to identify most of the trees you might encounter.

Species included in this guide

English Yew	*Taxus baccata*	Box 6a
Larch	*Larix* spp.	Box 6a
Lawson's Cypress	*Chamaecyparis lawsoniana*	Box 6b
Leyland Cypress	*x Cuprocyparis leylandii*	Box 6b
Scots Pine	*Pinus sylvestris*	Box 6c
Black Pine	*Pinus nigra*	Box 6c
Hawthorn	*Crateagus monogyna*	Box 7
Common Oak	*Quercus robur*	Box 8a
Sessile Oak	*Quercus petraea*	Box 8a
Holm Oak	*Quercus ilex*	Box 8b
Common Holly	*Ilex aquifolium*	Box 8b
Sycamore	*Acer pseudoplatanus*	Box 10
Sweet Gum	*Liquidambar styraciflua*	Box 10
London Plane	*Platanus x hispanica*	Box 12
Norway Maple	*Acer platanoides*	Box 13a
Field Maple	*Acer campestre*	Box 13a
Silver Maple	*Acer saccharinum*	Box 13b
Hornbeam	*Carpinus betulus*	Box 17
Wild Cherry	*Prunus avium*	Box 18a
Ornamental cherries	*Prunus* spp.	Box 18a
Blackthorn	*Prunus spinosa*	Box 18b
Cherry Plum	*Prunus cerasifera*	Box 18b
Sweet Chestnut	*Castanea sativa*	Box 20
Willow	*Salix* spp.	Box 22
Apple or Crab Apple	*Malus* spp.	Box 26a
Pear	*Pyrus* spp.	Box 26b
Whitebeam	*Sorbus aria*	Box 27
Black Poplar	*Populus nigra*	Box 29
Aspen	*Populus tremula*	Box 29
Common Lime	*Tilia x europaea*	Box 31a
Small-leaved Lime	*Tilia cordata*	Box 31a
Large-leaved Lime	*Tilia platyphyllos*	Box 31b
Caucasian Lime	*Tilia x euchlora*	Box 31b
English Elm	*Ulmus procera*	Box 31c
Wych Elm	*Ulmus glabra*	Box 31c
Common Hazel	*Corylus avellana*	Box 32a
Turkish Hazel	*Corylus colurna*	Box 32a
Silver Birch	*Betula pendula*	Box 32b
Downy Birch	*Betula pubescens*	Box 32b
Himalayan Birch	*Betula utilis*	Box 32c
Common Beech	*Fagus sylvatica*	Box 34
Italian Alder	*Alnus cordata*	Box 36
Common Alder	*Alnus glutinosa*	Box 36

Horse Chestnut	*Aesculus hippocastanum*	Box 38
Red Horse Chestnut	*Aesculus x carnea*	Box 38
Elder	*Sambucus nigra*	Box 40
Box Elder	*Acer negundo*	Box 40
Walnut	*Juglans regia*	Box 42a
Tree-of-heaven	*Ailanthus altissima*	Box 42a
Common Ash	*Fraxinus excelsior*	Box 42b
Narrow-leaved Ash	*Fraxinus angustifolia*	Box 42b
False Acacia	*Robinia pseudoacacia*	Box 43
Rowan	*Sorbus aucuparia*	Box 43

1

Are the leaves needle or scale-like?

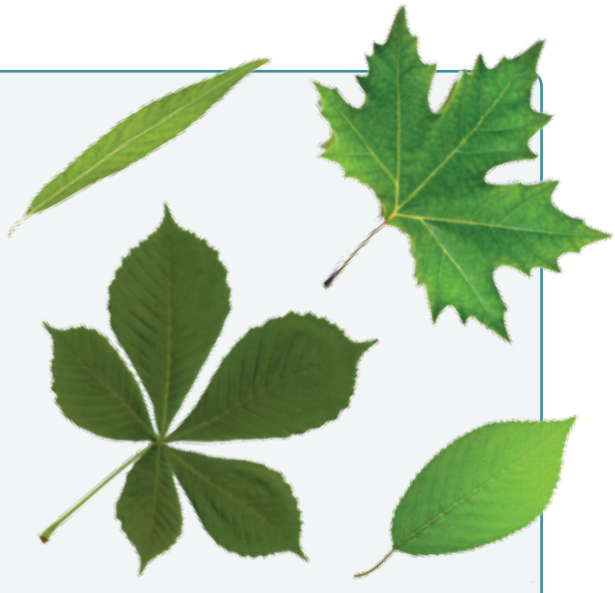
YES

Leaves needle or scale-like

.....Go to BOX 6

NO

Leaves wide and flat



.....Go to BOX 2

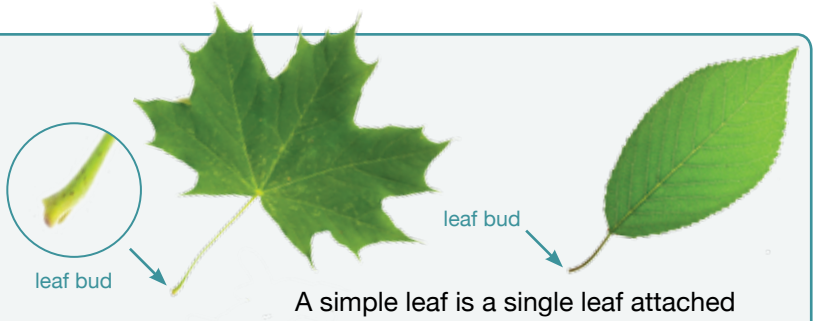
2

Are the leaves simple or compound?

SIMPLE

The leaves are simple

.....Go to BOX 3

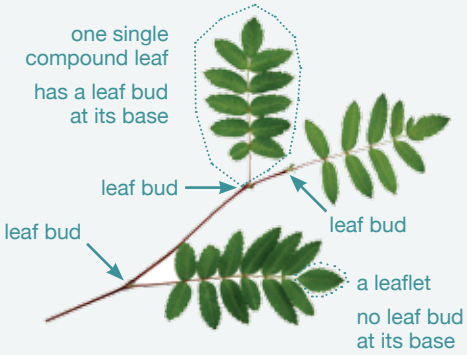


A simple leaf is a single leaf attached to a stalk. There is a leaf bud at the base of the leaf stalk.

COMPOUND

The leaves are compound

.....Go to BOX 41



Compound leaves are split into separate parts called leaflets.

If you're not sure, check whether the stalk has a bud. Leaflets don't have a leaf bud.

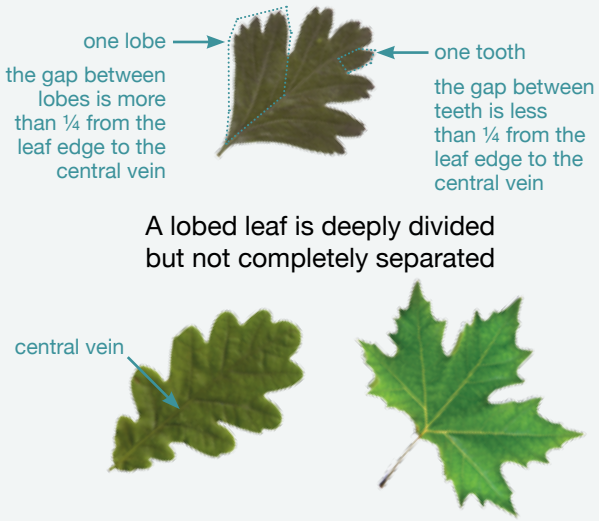
3

Are the leaves lobed or unlobed?

LOBED

The leaves are lobed

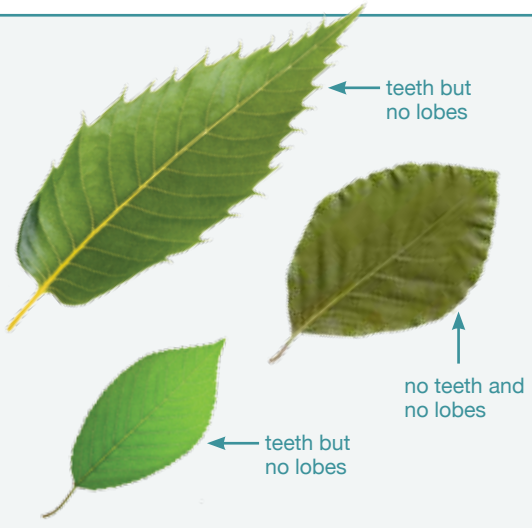
.....Go to BOX 4



UNLOBED

The leaves are unlobed

.....Go to BOX 14

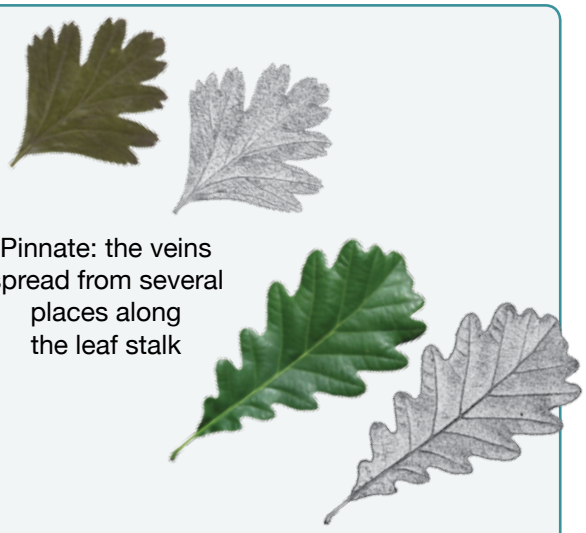


4

Is the leaf vein arrangement pinnate or palmate?

PINNATE

The leaf veins are pinnate

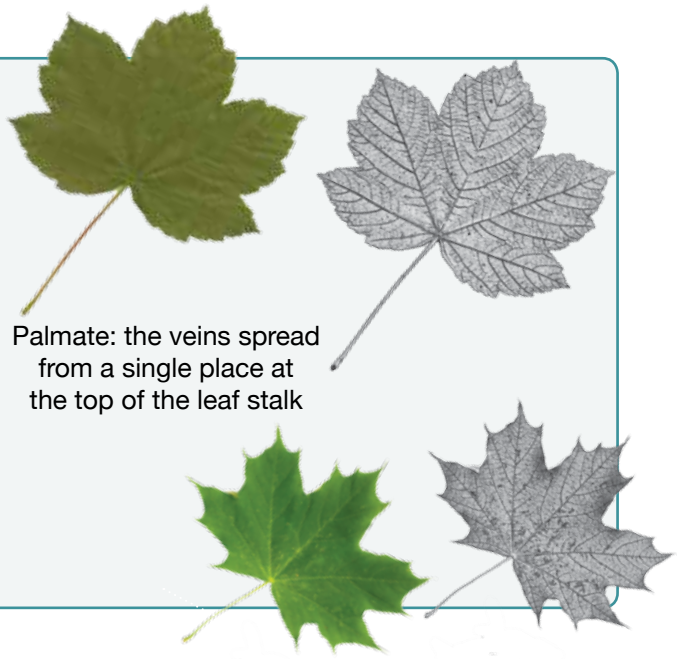


Pinnate: the veins spread from several places along the leaf stalk

.....Go to BOX 5

PALMATE

The leaf veins are palmate



Palmate: the veins spread from a single place at the top of the leaf stalk

.....Go to BOX 9

5

Are the twigs thorny?

YES

The twigs
are thorny

.....Go to BOX 7

NO

The twigs
are not thorny

.....Go to BOX 8

6 a

Your tree is a CONIFER (scientific name = Pinophyta)

Is it one of these commonly-occurring urban species?

English Yew *Taxus baccata*

Leaf a
Glossy green needles, up to 4 cm long. Needles are pointed, and lie in a row on either side of the twig.

Bark b
Red-brown or purplish. Thin vertical strips, can peel away.

Twigs
Leaves all year round (evergreen).

Fruit and flowers c
A red, fleshy and round cup.

Tree shape d
Rarely more than 8 m tall. Broad cone-shaped profile, dense foliage.

⚠ English Yew is toxic

a


b


c


d


Larch *Larix spp.*

Leaf a
Grass green needles, up to 3 cm long. Needles grow in tight clusters of up to 40. Turn yellow in autumn.

Bark b
Grey-brown or red brown. Develops vertical flakes.

Twigs
Colour varies according to age and species. Typically yellow, orange or red, and sometimes hairy.

Fruit and flowers c
A round woody cone.

Tree shape d
Tall tree (to 35 m), narrow cone-shaped profile.

a


b


c


d


6 b CONIFERS with scale-shaped leaves

Lawson's Cypress *Chamaecyparis lawsoniana*

Leaf a
Green, yellow or blue-grey. Scale-shaped leaves (each scale 2 mm long). Scales flattened in one plane.

Bark b
Grey-brown. Develops vertical ridges with age.

Twigs
Leaves all year round (evergreen).

Fruit and flowers c
A small ball-shaped cone (under 1 cm across). Cones start green then turn brown (like many conifers).

Tree shape d
Tall (to 40 m), upright, narrow cone-shaped profile, with dense foliage. Commonly found in hedgerows.

Leyland Cypress *x Cuprocyparis leylandii*

Leaf a
Green or blue-grey. Scale-shaped leaves (each scale 2 mm long). Scales spread in 3 dimensions, and are not flattened in one plane.

Bark b
Dull red-grey, shallow vertical ridges.

Twigs
Leaves all year round (evergreen).

Fruit and flowers c
A ball-shaped cone, with pointed scales. Cones start green then turn brown (like many conifers).

Tree shape d
Tall (to 40 m), upright, narrow cone-shaped profile, with dense foliage.

6 c CONIFERS with needles in bundles

Scots Pine *Pinus sylvestris*

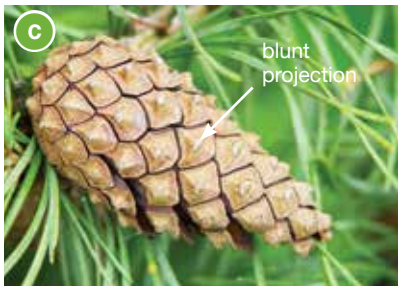
Needles a
Grey-green or blue-green. 5-7 cm long. Grow in bundles of 2. Thicker and more twisted than other pines.

Bark b
Brown, sometimes tinged pink. Upper trunk orange-brown.

Twigs
Has leaves all year round (evergreen).

Fruit and flowers c
A woody cone. Each cone scale has a blunt projection in the middle.

Tree shape d
To 25 m. Cone-shaped when young, older trees are flat-topped and open.



Black Pine *Pinus nigra*

Needles a
Dark green. Up to 15 cm long. Grow in bundles of 2. Flattened and stiff.

Bark b
Pink-grey-black. Becomes heavily ridged with age.

Twigs
Leaves all year round (evergreen).

Fruit and flowers c
A long straight woody cone. Each cone scale has a spiny projection in the middle

Tree shape d
Tall (to 30 m), upright, heavily branched from a single thick trunk.

7 Is the tree one of these commonly-occurring urban species?

Hawthorn *Crataegus monogyna*

Leaf a
Dark green, underside pale. Small (up to 4.5 cm long). Deeply lobed into 2,3 or 5 lobes. Edge toothed.

Bark b
Grey-brown. With age bark flakes off in rectangles.

Twigs c
Twigs brown-green. Buds tiny, at base of spines.

Fruit and flowers d
White flowers. Red berry.

Tree shape e
Large shrub or small tree (to 6-10 m) but often cut back, tangled shape, with spreading branches. Commonly found in hedgerows.

a


c


b


d


e


Also look out for Midland Hawthorn *Crataegus laevigata*, which has less deeply lobed leaves. The red-flowered variety of Midland Hawthorn, Paul's Scarlet, is often planted.

If this is not your tree, then you can try using PlantNet for further identification help

8a Is the tree one of these commonly-occurring urban species?

Common Oak *Quercus robur*

Leaf a
Green. 3-6 pairs of rounded lobes. 'Ears' at the base of the leaf that clasp the leaf stem. Leaf stems very short (less than 1 cm).

Bark b
Grey, smooth when young. Soon becomes vertically fissured.

Twigs c
Twigs brown. Buds orange-brown, fat.

Fruit and flowers d
An acorn with a stalk.

Tree shape e
Tall tree (to 20-25 m), with a broad and spreading crown.

'ears'
clasping the leaf stem

Sessile Oak *Quercus petraea*

Leaf a
Dark green, underside paler. 5-8 pairs of rounded lobes. No 'ears' at the base of the leaf. Leaf stems yellow, 1-2.5 cm long.

Bark b
Grey-brown. With age develops deep vertical fissures.

Twigs c
Twigs brown. Buds orange-brown, fat.

Fruit and flowers d
An acorn with no stalk, sitting directly on the twig.

Tree shape e
To 20-30m. Domed shape.

no 'ears'
the leaf tapers towards the stem

You may find hybrids between Common Oak and Sessile Oak. Hybrid trees have leaf characteristics that are intermediate between the two parents. The scientific name for the hybrid is *Quercus x rosacea*.

8 b Prickly leaves

Holm Oak *Quercus ilex*

Leaf a
Shiny green, underside downy grey. Up to 8 cm long. Shape variable, often with small spines.

Bark b
Dark brown. Heavily-fissured, split into small rectangular plates.

Twigs
Has leaves all year round (evergreen).

Fruit and flowers c
A brown acorn, mostly covered by the green cup.

Tree shape d
To 25 m, and often very broad. Dense and rounded crown.

Common Holly *Ilex aquifolium*

Leaf a
Glossy green. Up to 12 cm long. Young plants have prickly leaves. Leaves of older trees, and the upper branches, may lack prickles.

Bark b
Grey-brown with horizontal warts. Becomes craggy with age.

Twigs
Has leaves all year round (evergreen).

Fruit and flowers c
A red berry.

Tree shape d
Large shrub or small tree (to 15m if not cut back), cone shape. Commonly found in hedgerows.

There are many different ornamental varieties of Common Holly, including varieties without spiny leaves, varieties with partly or completely yellow leaves, and varieties with yellow (not red) berries.

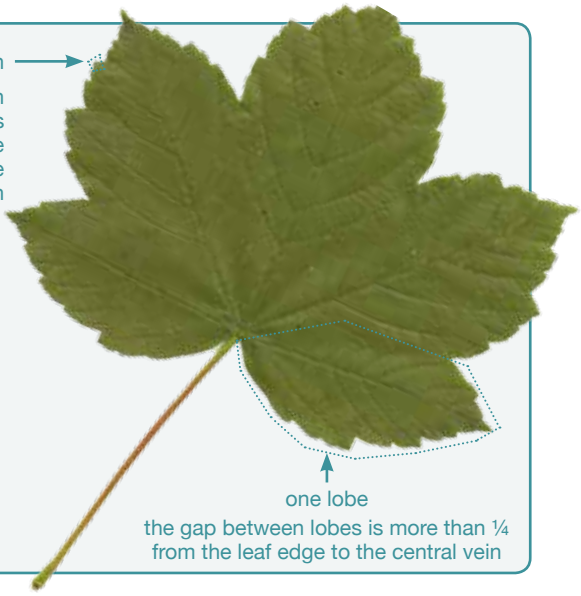
9

Does the leaf have a toothed or smooth edge?

TOOTHED

The leaf has a toothed edge

.....Go to BOX 10



SMOOTH

The leaf has a smooth edge

.....Go to BOX 11

10 Is the tree one of these commonly-occurring urban species?

Sycamore *Acer pseudoplatanus*

Leaf a
Green. Up to 15 cm long. Leaves grow in opposite pairs. 5 pointed lobes. Edge toothed. Leaf stem red.

Bark b
Grey, smooth on young trees. With age, flakes off in rectangles.

Twigs c
Twigs grey-brown. Buds green, fat, in opposite pairs.

Fruit and flowers d
A winged seed ('helicopter').

Tree shape e
Tall (to 40 m), spreading, with a broad domed crown.

c 

a 

b 

d 

e 

Sweet Gum *Liquidambar styraciflua*

Leaf a
Green. Up to 18 cm long. Leaves grow in alternate pairs. 3 or 5 pointed lobes. Edge finely toothed. Leaf stem green. No thorns.

Bark b
Grey-brown, becoming fissured and corky with age.

Twigs c
Twig light brown. Bud same colour, fat and pointed.

Fruit and flowers d
A spiky capsule (2-4cm across), but this is rarely seen in UK.

Tree shape e
To 20 m, rounded crown.

c 

a 

b 

d 

e 

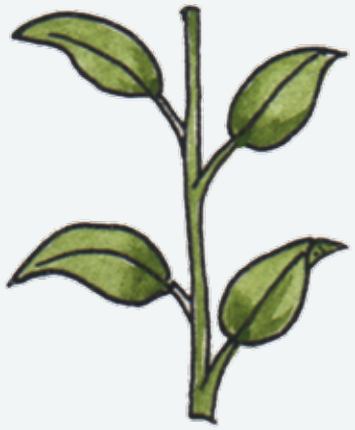
If neither of these are your tree, then you can try using PlantNet for further identification help

11

Do the leaves grow in alternate or opposite pairs?

ALTERNATE

The leaves grow in alternate pairs



.....Go to BOX 12

OPPOSITE

The leaves grow in opposite pairs

.....Go to BOX 13

12 Is the tree one of these commonly-occurring urban species?

London Plane *Platanus x hispanica*

Leaf a
Green and leathery. Up to 24 cm long. Leaves grow in alternate pairs. Palmate. 3 or 5 pointed lobes. 3 or more teeth on each lobe.

Bark b
Light green or grey. Breaks off in patches, revealing cream colour underneath.

Twigs c
Twigs green, twisted. Buds red-brown, rounded.

Fruit and flowers d
A round ball of spiky seeds.

Tree shape e
Tall (to 30m), upright, spreading crown.

If neither of these are your tree, then you can try using PlantNet for further identification help

13 a Is the tree one of these commonly-occurring urban species?

Norway Maple *Acer platanoides*

Leaf a
Bright green, underside hairy. Up to 15 cm long. Leaves grow in opposite pairs. 5 pointed lobes, with several bristle-tipped teeth on each lobe. Leaf stalk releases a milky sap.

Bark b
Grey. Shallow fissures with age.

Twigs c
Twigs brown, hairless. Buds red above, green below.

Fruit and flowers d
A winged seed. Wider spreading wings than Sycamore.

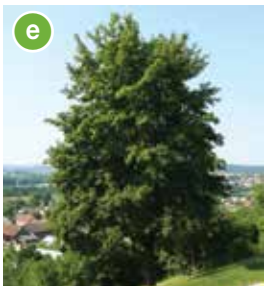
Tree shape e
To 25 m, spreading, domed crown.

a 

c 

b 

d 

e 

Field Maple *Acer campestre*

Leaf a
Dark green. Up to 12 cm long. Leaves grow in opposite pairs. 5 rounded lobes. Rounded teeth. Leaf stem green.

Bark b
Grey or brown. Vertical fissures deepen with age, sometimes becoming flaky and corky.

Twigs c
Twigs red-brown. Buds red, hairy, in opposite pairs.

Fruit and flowers d
A winged seed. Wings horizontal.

Tree shape e
Medium-sized (to 15 m), rounded crown.

a 

c 

b 

d 

e 

13 b Deeply lobed leaves

Silver Maple *Acer saccharinum*

Leaf a
Light green. Up to 16 cm long. Deeply lobed, with 5 lobes. Leaf edge with jagged teeth. Furry underneath.

Bark b
Grey and smooth. After 60 years becomes vertically ridged and fissured.

Twigs c
Twigs red-brown. Buds red, hairy, in opposite pairs.

Fruit and flowers d
A winged seed.

Tree shape e
To 18-25 m, narrow, but with a spreading crown.

If neither of these are your tree, then you can try using PlantNet for further identification help

14

Is the leaf at least twice as long as it is wide?

Measure at least 10 leaves from different parts of the tree.

YES

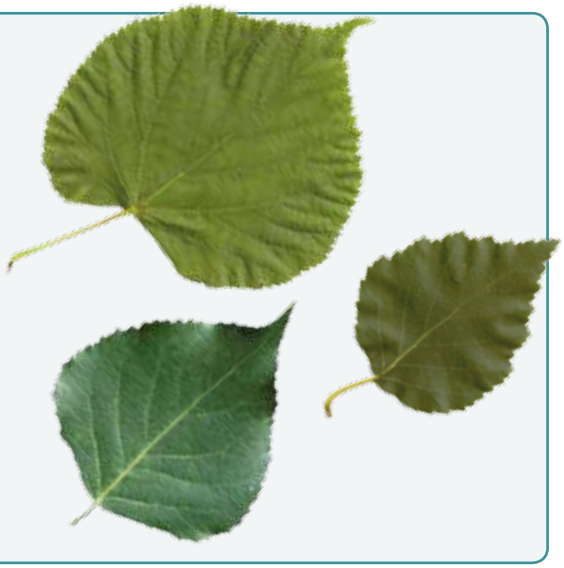
Leaf at least twice as long as wide

.....Go to BOX 15

NO

Leaf less than twice as long as wide

.....Go to BOX 23



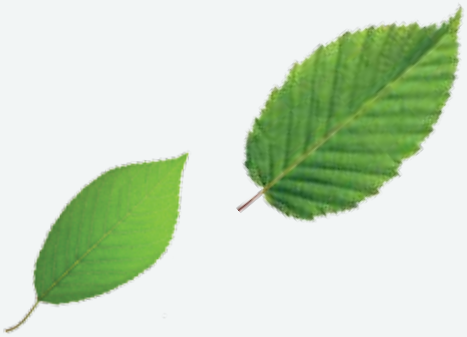
15

Is the leaf shorter than 10 cm (from base to tip)?

YES

The leaf is shorter than 10 cm

.....Go to BOX 16



NO

The leaf is 10 cm or longer

.....Go to BOX 19

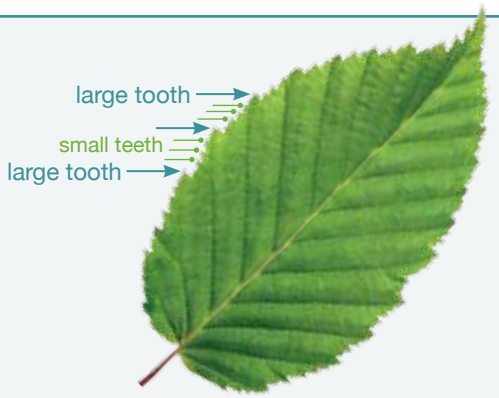
16

Is the edge of the leaf double-toothed?

YES

Edge of the leaf is double-toothed

.....Go to BOX 17



Double-toothed leaves have large teeth with smaller teeth in between

NO

Edge of the leaf is not double-toothed

.....Go to BOX 18

17 Is the tree one of these commonly-occurring urban species?

Hornbeam *Carpinus betulus*

Leaf a
Bright green. Up to 10 cm long. Oval with a pointed tip. Edges toothed. Veins prominent.

Bark b
Grey, smooth. Develops vertical furrows with age. Furrows often orange or dull silver.

Twigs c
Twigs brown, slender. Buds brown-green, pointy.

Fruit and flowers d
Winged nuts in green papery cluster.

Tree shape e
Medium-sized (to 20 m), often cone-shaped. Commonly found in hedgerows.

a


c


b


d


e


If neither of these are your tree, then you can try using PlantNet for further identification help

18 a Is the tree one of these commonly-occurring urban species?

Wild Cherry *Prunus avium*

Leaf a
Green. Up to 15 cm long. Long oval shape with a poined tip. Edge toothed. 2 red glands at base.

Bark b
Red, brown or grey. Orange-brown horizontal lines.

Twigs c
Twigs grey. Buds red-brown, pointed.

Fruit and flowers d
A small cherry (under 2 cm across). White flowers.

Tree shape e
Tall tree (to 30 m), with a domed crown.

There are many varieties of ornamental cherries. Leaves are similar to Wild Cherry. Identifying them accurately is difficult, so they are best recorded as *Prunus*.

Ornamental cherries *Prunus* spp.

Leaf a
Similar to Wild Cherry.

Bark b
Red, brown or grey. Some ornamental cherries have shiny brown bark that peels off.

Twigs c
Twigs grey. Buds red-brown, pointed.

Fruit and flowers d
A tiny cherry, uncommon. Flowers range from white to bright pink.

Tree shape e
Small (to 6-8 m). Almost any shape, from tangled (with spreading branches) to strictly upright.

18 b Spiny twigs and branches

Blackthorn *Prunus spinosa*

Leaf a
Dull green. Up to 4.5 cm long. Oval, pointed at tip. Toothed edge.

Bark b
Black or dark brown.

Twigs c
Twigs dark brown. Long spines.

Fruit and flowers d
Sloes: black or blue-black, oval, fleshy. White flowers early spring.

Tree shape e
Small tree (to 6 m but often cut back), bushy with numerous crossing branches. Commonly found in hedgerows.

Cherry Plum *Prunus cerasifera*

Leaf a
Green or red-purple. Up to 7 cm long. Oval, pointed at both ends. Edge has rounded teeth.

Bark b
Dark brown, with horizontal lines. Orange bark underneath.

Twigs c
Twigs brown. Buds red-brown.

Fruit and flowers d
A small plum. White flowers in early spring before the leaves open.

Tree shape e
Shrub or small tree (to 8 m), bushy with dense branches. Commonly found in hedgerows.

If none of these are your tree, then you can try using PlantNet for further identification help

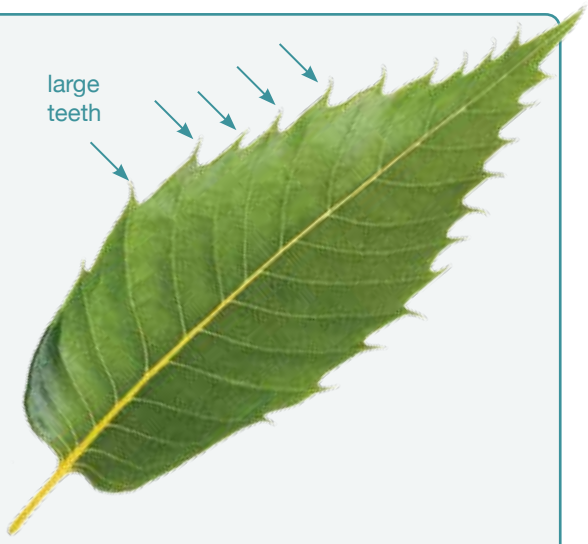
19

Does the edge of the leaf have large teeth?

YES

Edge of the leaf has large teeth

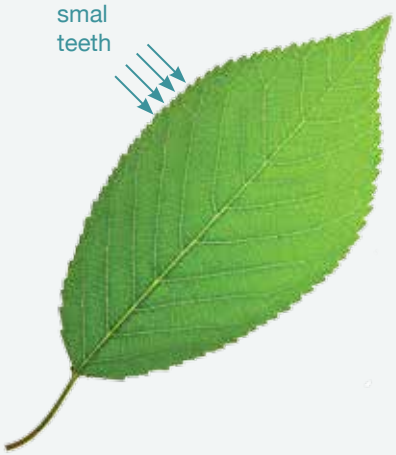
.....Go to BOX 20



NO

Edge of the leaf lacks large teeth

.....Go to BOX 21



20

Is the tree one of these commonly-occurring urban species?

Sweet Chestnut *Castanea sativa*

Leaf a
Glossy green. Up to 25 cm long. Elliptical shape. Edge with saw-tooth teeth, each tooth ending in a spine that points towards the tip.

Bark b
Brown, smooth when young. Develops spiralling fissures.

Twigs c
Twigs red-brown, ridged. Buds red, plump.

Fruit and flowers d
A shiny nut, in a spiny green case.

Tree shape e
Tall (to 20 m), upright, lower branches almost reach the ground.

If this is not tree, then you can try using PlantNet for further identification help

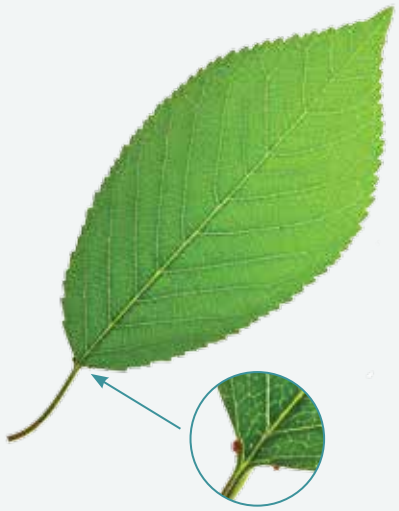
21

Are there two red spots at the top of the leaf stalk?

YES

Two red spots at top of leaf stalk

.....Go to BOX 18



NO

No red spots at top of leaf stalk

.....Go to BOX 22

22 Is the tree one of these commonly-occurring urban species?

Willow *Salix* spp.

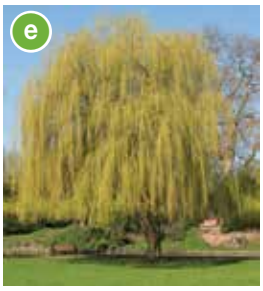
Leaf a
There are several species of willow, and they can be difficult to distinguish between them. Leaves can be long and thin, or round.

Bark b
Brown or grey. Becomes cracked and fissured.

Twigs c
Twigs green. Buds yellow-red, plump, pointed.

Fruit and flowers d
White fluff.

Tree shape e
To 6-15 m. Shrub to medium-sized tree, often bushy, sometimes 'weeping'.



If this is not your tree, then you can try using PlantNet for further identification help

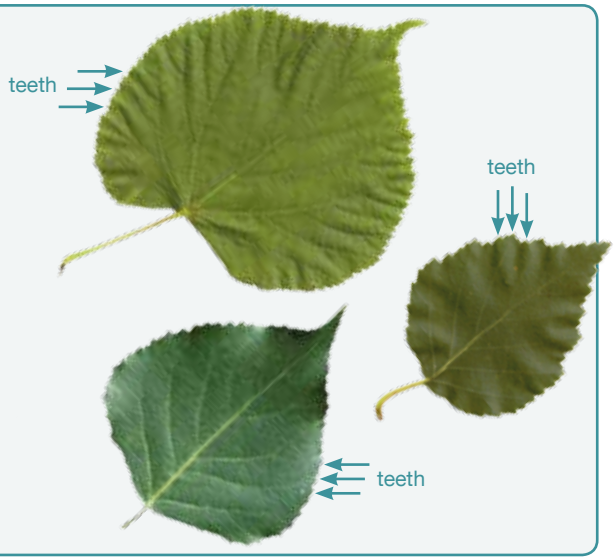
23

Does the leaf have a toothed edge?

YES

Leaf has a toothed edge

.....Go to BOX 24



NO

Leaf does not have a toothed edge

.....Go to BOX 33

24

Is the underside of the leaf pale?

YES

Underside of the leaf is pale

.....Go to BOX 25

NO

Underside of the leaf is not pale

.....Go to BOX 28

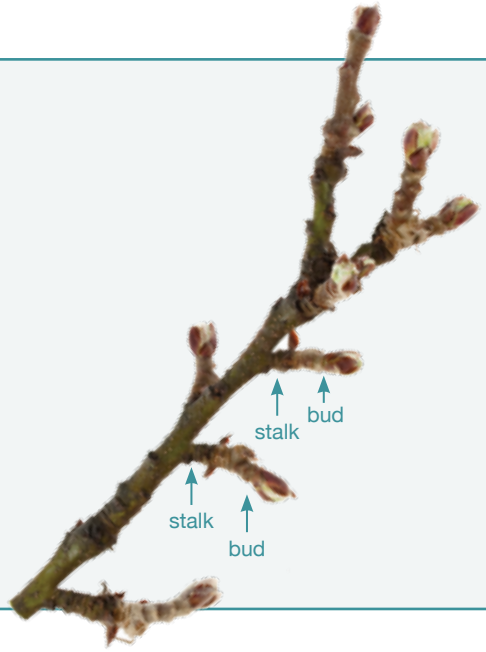
25

Does the bud grow on a stalk?

YES

The bud grows on a stalk

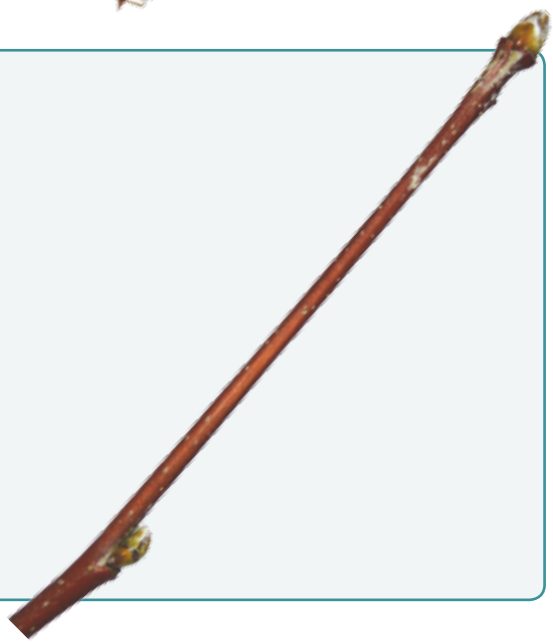
.....Go to BOX 26



NO

The bud does not grow on a stalk

.....Go to BOX 27



26 a Is the tree one of these commonly-occurring urban species?

Apple or Crab Apple *Malus* spp.

Leaf a
Green. Up to 13 cm long. Oval shape, with rounded base and slightly pointed tip. Edge toothed.

Bark b
Light brown or grey. Becomes fissured with age.

Twigs c
Twigs grey. Buds white and woolly.

Fruit and flowers d
Apple. White or pink flowers in spring.

Tree shape e
To 10-12 m, but often much shorter. Tangled shape, but often heavily pruned.

a


c


b


d


e


There are many varieties of apple. Eating or cooking apples can be recorded as *Malus domestica* even if the specific variety is unknown. Wild Crab Apples *Malus sylvestris* produce small, bitter yellowy-green to orange fruit. Twigs often have spines. The many varieties of ornamental crab apples planted mean it is often best to record them as just *Malus*.

26 b Pear species

Pear *Pyrus* spp.

Leaf a
Cultivated Pear and Wild Pear have glossy green leaves. Up to 8 cm long. Oval shape. Edge with small teeth. Usually hairless, but some species of pear have downy leaves.

Bark b
Light grey, becomes fissured.

Twigs c
Twigs grey. Buds white and woolly.

Fruit and flowers d
Pear. Ornamental pears have small round inedible fruit. White or pink flowers in spring.

Tree shape e
To 15 m but often much shorter, narrow profile.

There are many varieties of pears planted. Cultivated Pear is *Pyrus communis*. The most common ornamental species is Callery Pear *Pyrus calleryana* which is an upright tree with small, marble-sized fruits. The many varieties of ornamental pears planted mean it is often best to record them as just *Pyrus*.

If neither of these are your tree, then you can try using PlantNet for further identification help

27 Is the tree one of these commonly-occurring urban species?

Whitebeam *Sorbus aria*

Leaf a
Green, underneath felty white. Up to 12 cm long. Oval. Variable: sometimes toothed, sometimes slightly rounded and lobed.

Bark b
Brown-grey, smooth and glossy. Wavy ridges on older trees.

Twigs c
Red in sun, grey-green in shade.

Fruit and flowers d
Red berry.

Tree shape e
Medium-sized (to 15 m), with a domed or spreading crown.

c

a

b

d

e

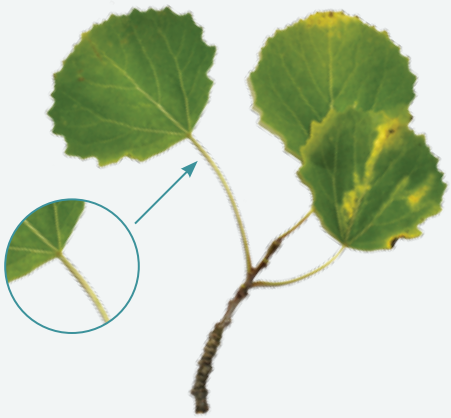
If this is not your tree, then you can try using PlantNet for further identification help

28

Is the leaf stalk flattened?

YES

The leaf stalk is flattened



.....Go to BOX 29

NO

The leaf stalk is not flattened

.....Go to BOX 30

29 Is the tree one of these commonly-occurring urban species?

Black Poplar *Populus nigra*

Leaf a
Green. Up to 8 cm long. Triangular. Edge finely toothed. Young leaves have small hairs until autumn, with a faint smell of balsam.

Bark b
Brown-grey, smooth and glossy. Wavy ridges on older trees.

Twigs c
Twigs golden brown. Buds darker, hairless, pointed.

Fruit and flowers d
Green-pink female catkins, developing into white fluff.

Tree shape e
To 30 m, upright, spreading crown.

Aspen *Populus tremula*

Leaf a
Grey-green. Up to 6 cm long. Round. Edge with wave-shaped teeth. Young leaves have grey down, soon lost. Leaf stalks flattened.

Bark b
Pale grey. Rows of diamond shapes.

Twigs c
Twigs grey on young trees, shiny brown on older trees. Buds dark brown, sharply pointed.

Fruit and flowers d
Green female catkins, developing into white fluff.

Tree shape e
Tall (to 20 m), narrow profile, tapering cone shape.

If neither of these are your tree, then you can try using PlantNet for further identification help

30

Does the leaf bulge out more on one side?

YES

Bulges out more on one side

.....Go to BOX 31

NO

No bulge on either side

.....Go to BOX 32

31 a Is the tree one of these commonly-occurring urban species?

Common Lime *Tilia x europaea*

Leaf a
Green. Large (6-10 cm long). Flimsy. Heart-shaped. Young leaves hairy underneath, later with tufts of white hair in vein joints only.

Bark b
Grey-brown, smooth, but becomes fissured. Outgrowths at base.

Twigs c
Twigs red or green. Buds hairy.

Fruit and flowers d
Round fruit, hanging in loose bunches downwards from foliage.

Tree shape e
Tall (to 45 m), upright shape, with irregular crown.

Common Lime is a hybrid of *Tilia cordata* and *Tilia platyphyllos*, so is easily confused with either.

Small-leaved Lime *Tilia cordata*

Leaf a
Dark shiny green, paler underneath. Small (3-8 cm long). Less flimsy than Common Lime. Rounded. Tufts of rusty hair in vein joints underneath.

Bark b
Grey, smooth when young. Becomes cracked into small plates.

Twigs c
Twigs red or green. Buds hairless.

Fruit and flowers d
Round fruit, held in loose bunches at many different angles to foliage.

Tree shape e
To 40 m. Young trees cone-shaped, older trees more spreading.

31 b Lime trees with glossy leaves

Large-leaved Lime *Tilia platyphyllos*

Leaf a
Dark green. Large (6-10 cm long). Oval. Downy grey hair on both sides.

Bark b
Grey, smooth when young. Becomes ribbed. Outgrowths at base rare.

Twigs c
Twigs red or green, hairless. Buds red, plump.

Fruit and flowers d
Round fruit, hanging in loose bunches downwards from foliage.

Tree shape e
Tall (to 40 m) and narrow.

Caucasian Lime *Tilia x euchlora*

Leaf a
Glossy green, tufts of brown hair in vein joints underneath.

Bark b
Dark grey and smooth, develops shallow vertical ridges with age.

Twigs c
Twigs bright green, finely downy. Buds orange-red, hairless.

Fruit and flowers d
Round fruit, distinctly ribbed. Hanging in loose bunches downwards from foliage.

Tree shape e
To 15 m, upright shape, with irregular crown.

31 c Elm trees: leaves rough to the touch

Mature Elm trees are rare. Instead both English Elm and Wych Elm are more likely to be found growing in hedgerows. When checking Elm leaves, only choose the leaves that are growing from the branches. The leaves growing from the suckers at the base of the tree can grow into unusual shapes, and may also be very large.

English Elm *Ulmus procera*

Leaf a
Green. Up to 12 cm long. Round or oval. Short tapering tip. Edge toothed. Rough to the touch. Leaf base asymmetric: the long side does not extend past leaf stalk to twig.

Bark b c
Grey-brown, corky ridges when young, becoming fissured.

Twigs c
Twigs red-brown and densely hairy. Buds black, tiny (<2 mm long).

Fruit and flowers d
A small papery packet.

Tree shape e
To 30 m, but generally much shorter, upright profile.

Wych Elm *Ulmus glabra*

Leaf a
Green. Large (up to 18cm long). Round or oval. Long tapering tip. Edge toothed. Rough to the touch. Leaf base asymmetric: the long side extends past leaf stalk to twig.

Bark b
Grey-brown, corky ridges when young, becoming fissured.

Twigs c
Twigs dark brown and hairy. Buds red-brown, tiny (<2 mm long).

Fruit and flowers d
A small papery packet.

Tree shape e
To 30 m, but generally much shorter, spreading profile.

If neither of these are your tree, then you can try using PlantNet for further identification help

32 a Is the tree one of these commonly-occurring urban species?

Common Hazel *Corylus avellana*

Leaf a
Green, underside hairy. Large (to 10 cm long). Pointed tip, heart-shaped base. Leaf edge double-toothed.

Bark b
Brown or green, sometimes shiny, peeling horizontally in thin strips.

Twigs c
Twigs green-brown, hairy. Buds green-brown, oval.

Fruit and flowers d
Green seed case enclosing small hazel nut (under 2 cm across).

Tree shape e
Large shrub or small tree (to 6-8 m), tangled shape, spreading branches. Commonly found in hedgerows.

Turkish Hazel *Corylus colurna*

Leaf a
Green, underside hairy. Large (to 10 cm long). Pointed tip, heart-shaped base. Sometimes lobed. Leaf edge irregularly toothed.

Bark b
Yellow-grey, becomes fissured and corky.

Twigs c
Twigs green-brown, hairy. Buds light brown.

Fruit and flowers d
Deeply fringed seed case enclosing a long hazel nut (filbert), solitary or in bunches of 2-3.

Tree shape e
To 15-20 m, cone-shaped.

32 b Birch trees

Silver Birch *Betula pendula*

Leaf a
Green. Up to 4 cm long. Triangular or heart-shaped. Edge double-toothed. Leaf stalk hairless.

Bark b
Orange-red bark when young. Becomes silver-grey, with fissures and diamond-shaped patches.

Twigs c
Twig brown, shiny, feels warty. Buds green-brown.

Fruit and flowers d
Tiny brown seeds.

Tree shape e
To 20-25 m, narrow, tapering. Older trees may have a weeping shape.

Downy Birch *Betula pubescens*

Leaf a
Green. Up to 4 cm long. Rounded shape, triangular towards tip. Edge coarsely toothed. White hairs in vein joints underneath. Leaf stalk hairy.

Bark b
Purple-red bark when young. Becomes white-grey, deeply fissured and knobbly.

Twigs c
Twig brown, dull, downy. Buds green-brown.

Fruit and flowers d
Tiny brown seeds.

Tree shape e
To 25 m but often much shorter, narrow, tapering.

32 c Birch trees continued

Himalayan Birch *Betula utilis*

Leaf a
Dark, glossy green. Up to 5 cm long. Oval. Leaf edge with forward-pointing teeth. Leaf stalk hairy.

Bark b
Creamy white or pink-white, peeling. Many horizontal raised pores, called lenticels, shaped like darkened bands.

Twigs c
Twig brown, dull, downy. Buds green-brown.

Fruit and flowers d
Tiny brown seeds.

Tree shape e
10-20 m, rounded profile.

If neither of these are your tree, then you can try using PlantNet for further identification help

33

Does the leaf have fine white hairs on the edge?

YES

There are fine white hairs

.....Go to BOX 34

hold the leaf up to light to see the white hairs

NO

There are no fine white hairs

.....Go to BOX 35

34

Is the tree one of these commonly-occurring urban species?

Common Beech *Fagus sylvatica*

Leaf a
Green. Up to 10 cm long. Round. Edge wavy but untoothed.

Bark b
Grey and smooth when young. Develops fissures with age.

Twigs c
Twigs light brown. Buds torpedo-shaped, 2 cm long, pointed away from twig.

Fruit and flowers d
A 3-sided nut inside a prickly husk.

Tree shape e
Tall (to 35 m), upright, with a broad rounded crown. Commonly found in hedgerows.

a

c

b

d

e

If this is not your tree, then you can try using PlantNet for further identification help

35

Are there catkins that look like small pine cones?

YES

Hard catkins like small pine cones

.....Go to BOX 36

NO

Catkins are a different shape

.....Go to BOX 22

36 Is the tree one of these commonly-occurring urban species?

Italian Alder *Alnus cordata*

Leaf a
Glossy green. Up to 10 cm long. Heart-shaped, often pointed at tip. Tufts of orange hairs along midrib on underside.

Bark b
Grey or brown, smooth.

Twigs c
Twigs grey, downy. Buds purple, boxing glove shape.

Fruit and flowers d
A round woody cone (up to 3 cm long).

Tree shape e
To 30 m but generally much shorter, narrow cone shape.

Common Alder *Alnus glutinosa*

Leaf a
Glossy green. Up to 10 cm long. Round. Edge slightly toothed. Leaf tip often indented.

Bark b
Purple-brown when young. Becomes greyer, with vertical plates.

Twigs c
Twig often ridged. Buds purple, boxing glove shape.

Fruit and flowers d
A round woody cone (up to 3 cm long).

Tree shape e
To 25 m but generally much shorter, spreading branches.

If neither of these are your tree, then you can try using PlantNet for further identification help

37

Do all the leaflets grow from the end of the stalk?

YES

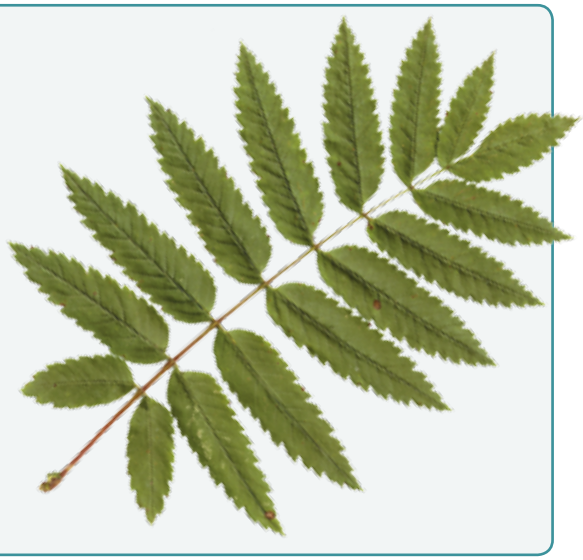
All leaflets grow from end of stalk

.....Go to BOX 38

NO

Not all leaflets grow from end of stalk

.....Go to BOX 39



38

Is the tree one of these commonly-occurring urban species?

Horse Chestnut *Aesculus hippocastanum*

Leaf a
Dark green. Large (to 25 cm long). Compound leaf, palmate shape, with 5-7 leaflets. Leaflets pointed.

Bark b
Grey-brown, becomes flaky with age.

Twigs c
Twigs brown. Buds brown, sticky, in opposite pairs.

Fruit and flowers d
A conker: shiny brown nut inside a prickly green case.

Tree shape e
To 30 m. Wide domed tree, with massive crown.

Red Horse Chestnut *Aesculus x carnea*

Leaf a
Dark green. Large (to 25 cm long). Compound leaf, palmate shape, with 5-7 leaflets. Leaflets often deformed.

Bark b
Grey-brown, pale orange-brown horizontal lines.

Twigs c
Twigs brown, rough. Buds dull green with red edges.

Fruit and flowers d
A conker: shiny brown nut inside a green case. Case is mostly smooth with only a few prickles.

Tree shape e
To 15-20 m. Wide domed tree with twisted branches.

If neither of these are your tree, then you can try using PlantNet for further identification help

39

Does the leaf have two or three pairs of leaflets?

YES

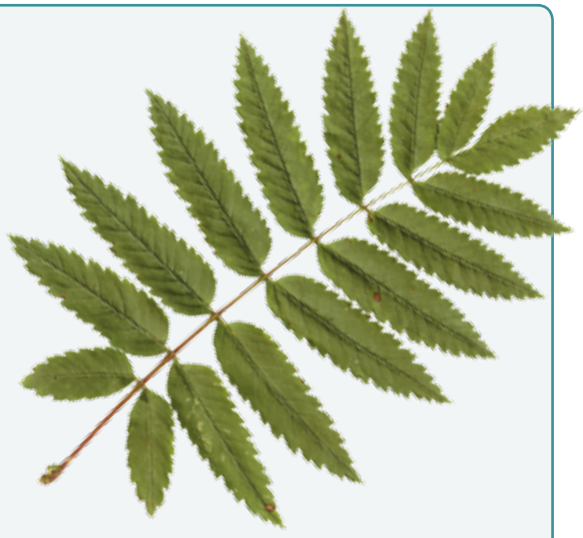
2 or 3 pairs of leaflets

.....Go to BOX 40

NO

More than 2 or 3 pairs of leaflets

.....Go to BOX 41



40

Is the tree one of these commonly-occurring urban species?

Elder *Sambucus nigra*

Leaf a
Dark green. Compound. 5-7 leaflets. Edge with forward-pointing teeth. Sometimes with stiff hairs.

Bark b
Pale brown, ridged and corky. Becomes deeply grooved.

Twigs c
Twigs brown-grey, hollow, with raised warts. Buds look ragged.

Fruit and flowers d
Clusters of black berries. Dense white flower-heads.

Tree shape e
Large shrub or small tree (generally under 6 m), tangled and spreading. Commonly found in hedgerows.

Box Elder *Acer negundo*

Leaf a
Pale green. Up to 5 cm long. Compound. 3 or 5 leaflets. Leaflet with long drawn-out tip.

Bark b
Pale brown, becoming grey and fissured with age.

Twigs c
Twigs green, hairless. Buds light-green, in opposite pairs.

Fruit and flowers d
Drooping cluster.

Tree shape e
To 15 m. Tangled shape with numerous crossing branches.

If neither of these are your tree, then you can try using PlantNet for further identification help

41

Do the leaves grow in opposite or alternate pairs?

OPPOSITE

The leaves grow in opposite pairs

.....Go to BOX 42

ALTERNATE

The leaves grow in alternate pairs

.....Go to BOX 43

42 a

Is the tree one of these commonly-occurring urban species?

Walnut *Juglans regia*

Leaf a
Dark green, leathery. Up to 15 cm long. Compound. Leaves grow in opposite pairs. 5-13 leaflets (usually 7). End leaflet much larger, basal pair much smaller. Edges toothless. Mostly hairless.

Bark b
Pale grey and smooth, becoming furrowed with age.

Twigs c
Twigs grey. Chambered pith inside. Buds dark grey.

Fruit and flowers d
Round green fruit.

Tree shape e
To 25 m, upright, domed crown.

c

a

b

d

e

Tree-of-heaven *Ailanthus altissima*

Leaf a
Red in spring, then shiny green. Up to 60 cm long. Compound. Leaves grow in opposite pairs. 15-41 leaflets. Aromatic. Edge untoothed, but 1-6 big teeth at base of leaflets.

Bark b
Dark grey-brown, becoming paler and fissured with age. Bark looks like it has fine white vertical ‘snakes’.

Twigs c
Twigs green-brown, velvety. Buds above heart-shaped leaf scars.

Fruit and flowers d
Red winged seeds. Green flowers.

Tree shape e
To 20-30m, many tangled branches.

c

a

b

d

e

42 b Ash trees

Common Ash *Fraxinus excelsior*

Leaf a
Green. Compound. Leaves grow in opposite pairs. 7-13 leaflets (up to 12 cm long). Edge serrated. Underside and leaf stalk downy.

Bark b
Pale grey. Smooth when young, becomes vertically fissured. Black bacterial cankers can develop.

Twigs c
Twigs grey. Buds sooty black, in opposite pairs.

Fruit and flowers d
Ash keys: winged fruit, hanging in bunches, green, becoming brown.

Tree shape e
To 30 m, straight, domed crown.

Narrow-leaved Ash *Fraxinus angustifolia*

Leaf a
Green. Compound. Leaves grow in opposite pairs. Usually 9 or 11 leaflets. Leaflets pointed and narrower than Common Ash. Leaf and leaf-stalk are hairless.

Bark b
Pale grey. Smooth when young, soon becomes furrowed.

Twigs c
Twigs green-grey. Buds brown, with fine grey wool, in opposite pairs.

Fruit and flowers d
Ash keys: winged fruit, hanging in bunches, green becoming brown.

Tree shape e
To 25 m, straight, with untidy crown.

43 Is the tree one of these commonly-occurring urban species?

False Acacia *Robinia pseudoacacia*

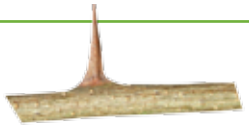
Leaf a
Pea green. Compound. Leaves grow in alternate pairs. 6-20 leaflets. Up to 20 cm long. Leaflets oval and untoothed.

Bark b
Brown, smooth when young. Soon becomes fissured and ridged.

Twigs c
Twigs brown, with short stout spines. Buds tiny.

Fruit and flowers d
Fruit like pea pods. White flowers.

Tree shape e
Medium-sized tree (to 20 m), with an open crown.

c


a


b


d


e


Rowan *Sorbus aucuparia*

Leaf a
Green or yellowish. Compound. Leaves grow in alternate pairs. 5-9 leaflets (leaflets to 6 cm long). Toothed margins.

Bark b
Grey, smooth, with horizontal scars.

Twigs c
Twig red-brown, shiny. Bud brown, with long grey hairs.

Fruit and flowers d
An orange berry, hanging in clusters. White flowers.

Tree shape e
Medium-sized tree (to 15 m), with a domed crown.

c


a


b


d


e


There are many different species and varieties related to Rowan that are grown as ornamental trees. Some have shiny bark, others have orange, yellow or white berries of varying sizes. If you think you have a tree that looks like a Rowan but doesn't quite match the description, it may be a related species. Record this as *Sorbus*.