

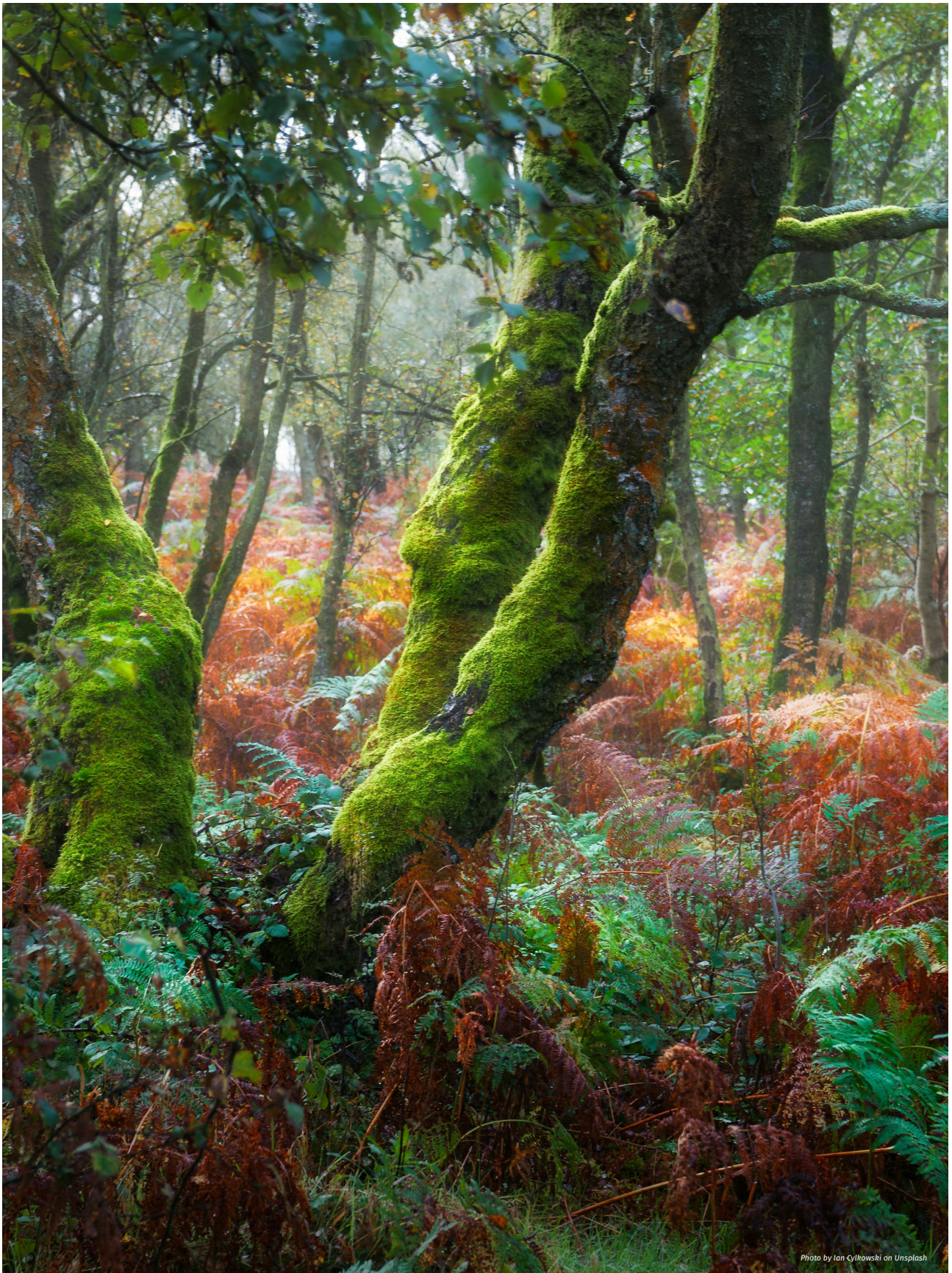


Photo by Ian Cylkowski on Unsplash

Ancient Woodland: Tree identification guide

Tree ID basics

Key features for tree identification include:

1. Leaf shape/type/texture/colour
2. Leaf bud
3. Flower
4. Fruit
5. Bark
6. Twig/branch

Piece the clues together, including the overall shape and size of the tree, bark, leaves or needles, flowers, fruits, leaf buds and twigs. The more features you can see, the more accurate your identification will be.

Tree species

Crab Apple (*Malus sylvestris*)

Shiny, smooth, oval leaves up to 6cm long, with rounded edges and a pointed tip. White or pink flowers with five petals emerge in May. Mature trees can reach 10m tall, having an irregular, rounded form and a broad, expansive canopy. They can live for up to a century. Speckled greyish-brown bark often becomes gnarled and twisted and colonised by lichens.

Winter ID: A short row of hairs lines the edge of the bud scales. **Similar species:** domestic apples, from discarded cores or rootstocks that survived after the grafted tree dies. Crab apples have spines, domestic apples don't. Leaf hairiness is not a good identifier as young Crab apple leaves can be hairy. The best identifier is the fruit, visit the tree in the autumn to check the size, shape and colour to confirm ID.



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Spindle/Almay



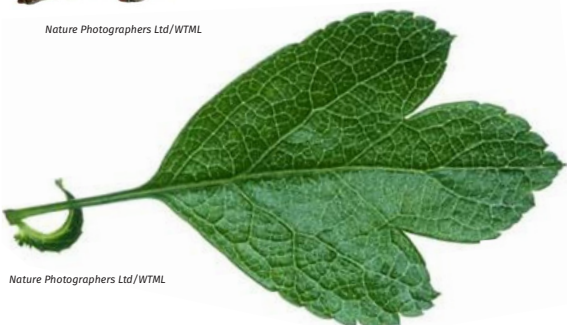
Jane Corey/WTML

Midland Hawthorn (*Crataegus laevigata*)

Glossy, deep-green, three-lobed leaves, 2-6cm long. The lobes are shallow, cut less than halfway to the mid-rib. Clusters of creamy-white flowers, that can have hints pink or red, appear in mid-April. A large shrub that can become a small tree, reaching 8m tall, with a dense, thorny coverage. Shade-tolerant and often found in understorey. **Winter ID:** spines emerging from the same point as the buds. Spines are smaller than thorns and located next to the buds. **Similar species:** Common Hawthorn (*Crataegus monogyna*) typically blooms one to two weeks later. Deeply lobed leaves, cut more than halfway to the mid-rib. Common Hawthorn is rarely found in understorey, their twigs are stiffer and more spiny. Note: hybrids between the two are quite common and will be intermediate in characteristics. Common Hawthorn fruits usually have one seed, while the Midland Hawthorn has two or three seeds, squish the fruit to check the number of seeds.



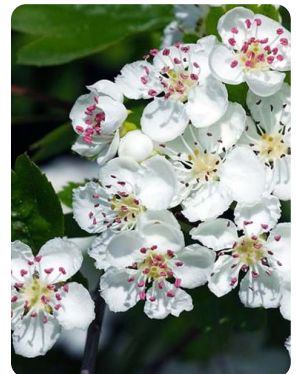
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Spindle (*Euonymus europaeus*)

Shiny and slightly waxy textured leaves with small sharp teeth along their edges. Greenish-white, four-petalled flowers emerge in clusters in May and June. Mature trees can reach up to 9m tall and live over a century. The bark and twigs are deep green that darken as they age, with light brown, cork-like markings. Typically, it doesn't develop a single trunk. Its slender, straight twigs bear opposite paired leaves. **Winter ID:** striking pink fruits with vibrant orange seeds, angular green buds and twigs. **Similar species:** Dogwood (*Cornus sanguinea*), Dogwood leaves do not have small teeth along the edges.



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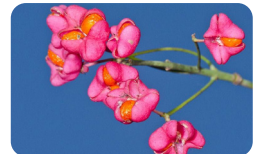
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Rowan (*Sorbus aucuparia*) also known as Mountain Ash

The leaves are arranged alternately along the stem, although they may appear to be opposite on a quick glance. They are pinnately divided into leaflets, with 5–8 pairs of leaflets arranged in opposites and one terminal leaflet. Each leaflet is elongated, oval-shaped, and toothed along the edges. The flowers are clustered densely, and have five creamy-white petals. In the autumn they have large clusters of bright orange fruits. Mature trees can reach up to 15m and can live up to 200 years. Their bark is smooth, silvery-grey, and leaf buds emerge are purple and hairy. Native specimens are usually found on drier, acidic soils but there are lots planted outside this range. **Winter ID:** The young twigs are initially hairy and later become smooth, along with buds covered in hair. Terminal buds are up to 8mm long, lateral buds typically show 2–5 scales. **Similar species:** Ash (*Fraxinus excelsior*) or Elder (*Sambucus nigra*). However, Rowan leaflets are serrated and usually pointed at the ends.



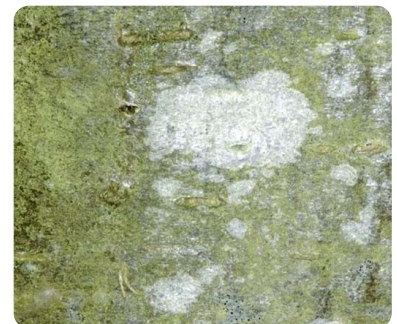
Shaun Dixon/WTML



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Niall Benvie/WTML



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Alder Buckthorn (*Frangula alnus*)

Matte green leaves are arranged alternately along the stem, they are oval, 3–7cm long and slightly hairy. They have a rounded tip and are tapered towards the stalk. Flowers emerge from May to June, they are small (3–5mm in diameter) and star-shaped, with five triangular, greenish-white petals. It forms a small, bushy tree, that can reach 4–5m. Its bark appears dark brown, the inner bark is vibrant yellow when revealed. Branches and stems are smooth, without thorns. Twigs are straight and smooth, purple-brown with delicate white streaks, and alternate buds. The leaves have 6–10 pairs of lateral veins that do not curve toward the tip. **Winter ID:** Hairy buds without scales. Peeling back the bark shows the bright yellow inner bark. **Similar species:** Dogwood (*Cornus sanguinea*), which has curving veins in its leaves, or Purging buckthorn (*Rhamnus cathartica*), has thorns and opposite, rather than alternate, leaves.



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Wild Cherry (*Prunus avium*)

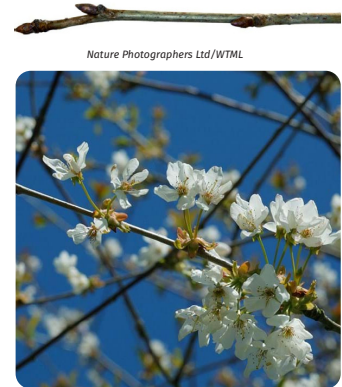
The leaves are green, 6–15cm long ovals, with curved serrations on the edges and taper to a pointed tip. Notably, each leaf stalk bears two red glands at the base. Cup-shaped flowers of 8–15mm diameter bloom in April, and have five white petals. These flowers cluster in groups of two to six. Mature trees can reach heights of 30m and live up to 60 years. They have lustrous, purple-grey, peeling bark with horizontal banding and a regular cylindrical trunk. **Winter ID:** Large oval pointed buds clustered on twigs. In winter you can often see pale cherry stones left on the ground beneath the trees. **Similar species:** Sour cherry (*Prunus cerasus*), fruits have shorter stalks. Bird cherry (*Prunus padus*), has leaves with fine, sharp teeth on the edges, which have pointed tips. Cherry plum (*Prunus cerasifera*) has a different leaf shape; the top of the leaf is more rounded with less of a distinguished point and the becomes slender in shape leading up to the base.



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Richard Becker/WTML

Purging Buckthorn (*Rhamnus cathartica*)

Shiny, deep green leaves, with toothed edges, are oval and taper to a point. The small flowers are yellow-green and consist of four petals. Mature trees can reach heights of 10m. They have grey-brown bark and thorned branches. Conical, black-brown leaf buds emerge on long stalks. The leaves are arranged in opposites along the twig, with 3–5 pairs of curved veins converging at the leaf tip. **Winter ID:** Twig thorns and elongated buds with scales closely pressed to the twig. Peeling back the bark exposes an orange surface underneath. **Similar species:** Dogwood (*Cornus sanguinea*), which lacks thorns. Alder Buckthorn (*Frangula alnus*), which bears alternate leaves instead of opposite ones.



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Wild Service Tree (*Sorbus torminalis*)

The leaf buds resemble small peas, rounded and green, and emerge on short leaf stalks. They feature 3–4 uneven lobes, similar to maple leaves, and turn a vibrant, coppery red in the autumn. The trees bear clusters of white flowers, each has 4–5 delicate white petals. Easily recognised in autumn by clusters of brown speckled fruits. Mature trees can reach 25m, like Rowan, it generally favours dry, acid soils. The bark is brown and has cracked, square plates. The grey-brown twigs are slim and glossy, and grow straight. **Winter ID:** smooth, hairless green buds. **Similar species:** Maple (*Acer campestre*), similar leaf shapes, but the leaves of the wild service tree lack the distinct lobing of maples. Wild Service Tree leaves are much larger than Field maple, Acers with larger leaves are more evenly lobed.



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Small-Leaved Lime (*Tilia cordata*)

Heart-shaped leaves with a pointed tip, 3–8cm long. The leaves are smooth apart from reddish-brown tufts under the vein-joints. Green-yellow flowers with five petals in clusters of 4–10. Mature trees can exceed 20m. Smooth grey-brown bark, that becomes flaky plates as it ages. Brown-red twigs that are shiny in the sunlight. **Winter ID:** Twigs are reddish on top and olive-green underneath. Smooth, shiny red buds, less than 4mm, with 2–3 scales. **Similar species:** It is important to distinguish from other lime varieties and hybrids. Common lime (*Tilia x europaea*), has tufts of white hairs between vein joints and is a hybrid that is uncommon in the wild. Large-leaved lime (*Tilia platyphyllos*), has white hairs underneath the whole leaf, leaves are larger (6–12cm). Small-leaved Lime are identified by the rusty red hairs under the leaf and flowers that are held upright above the foliage, unlike hybrid limes pendent blooms.



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Mike Crewe/website



Mike Crewe/website



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Guelder Rose (*Viburnum opulus*)

Leaves are opposite, broad, and simple, with three distinct lobes, coarsely serrated edges and fine hairs on the underside. They are 5–10cm long, with a rounded base and a central channel with a pair of round glands near the tip. In May to July, the tree has distinctive, branched clusters of creamy-white, occasionally pink, flat-topped flowers that are surrounded by a ring of larger, sterile flowers followed by glossy red fruits in autumn. A spreading, deciduous shrub that grows upright. Mature plants can reach 4m high and 2–5m wide with smooth greyish stems. Some preference for chalky to neutral soils but often planted elsewhere. **Winter ID:** Green, hairless buds with a pair of scales, tightly pressed against smooth twigs. **Similar species:** Maple (*Acer campestre*) similar leaf shapes, Guelder Rose leaves have three lobes, softly hairs underneath and a wrinkled upper surface.



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Nick Upton/naturepl.com



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Wayfaring Tree (*Viburnum lantana*)

Leaves are large, oval, and slightly wrinkled, with rounded-toothed edges. Positioned opposite each other, leaves have a dense covering of soft grey hairs underneath. Large, flat-topped, fragrant flowerheads are formed of numerous small, identical cream flowers with five petals. Pale grey-brown bark with darker patches. A deciduous shrub that can reach 5m. Favours chalky soils, only occasionally planted elsewhere. **Winter ID:** pale yellow-green buds, positioned opposite each other and pressed against slightly hairy twigs. **Similar species:** Guelder-Rose (*Viburnum opulus*) flowers are larger on the outer edge with smaller ones in the centre and has palmately lobed leaves.



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Recommended resources

Field Guides

www.treetoolsforschools.org.uk

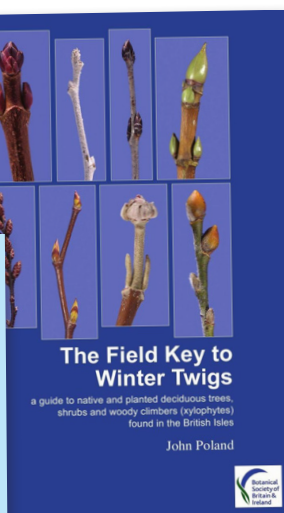
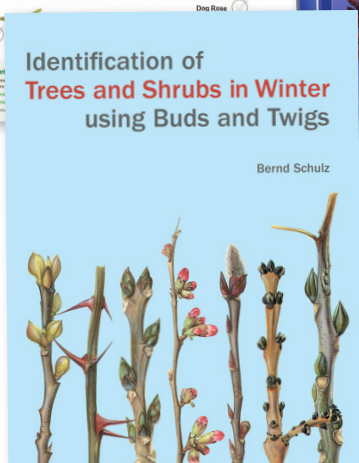
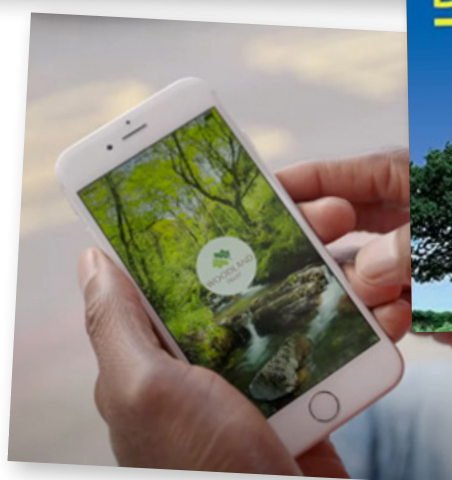
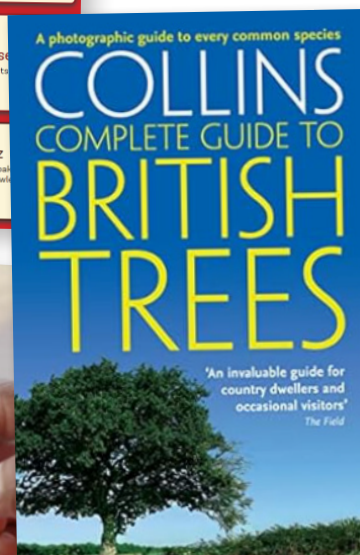
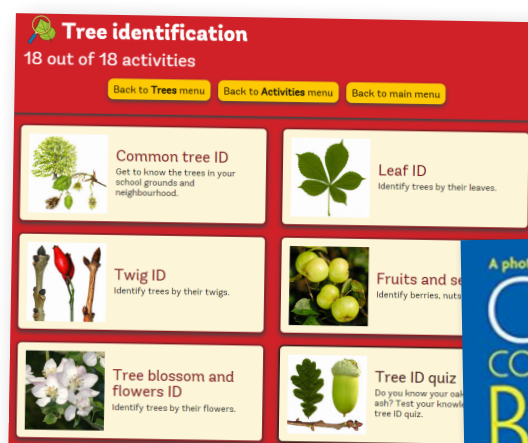
- Beginner friendly
- Common Tree, Leaf, Twig ID
- Quiz and activities

Colins Complete Guide to British Trees by Paul Sterry

- Beginner friendly
- Photo guide
- pp. 20–21 includes information on AWI species

British Tree Identification app by the Woodland Trust

- Very beginner friendly
- Great glossary of trees with useful photos
- Tree ID can sometimes be incorrect using the 'Identify trees by feature' tool



Twig and Bud ID Guide by the Woodland Trust

Click to download

- Beginner friendly
- Common Twig and Bud ID

The Field Key to Winter Twigs by John Poland

- Intermediate level – quite technical
- Great for winter ID

Identification of Trees and Shrubs in Winter using Buds and Twigs by Bernd Schulz

- Covers many more species
- Illustrated keys are user-friendly

Thanks to Mike Crewe for permissions to use text and images, see his website for more details:

www.webidguides.com

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