Adventurer's MK

TREE IDENTIFICATION

All trees have clues and features that can help with identification. You just need to know what to look out for. This quick guide to tree identification will give you a few basic hints and tips.

The UK has at least fifty species of native trees and shrubs, and many more species of introduced non-native trees. Some can be easy to identify, but others can be more difficult depending on your experience.

There are many features, or parts of the tree, that give you clues to what species it is.

Basic tree identification tips

- Look at the leaves or needles. Is it a broadleaf (usually deciduous) or is it a conifer (usually with needles or scales)?
- Different features will be present through the seasons. You can use twigs, leaf buds and bark on leafless winter broadleaf trees.
- Take notice of the surrounding area such as hedgerows, fields, parks, woodland or close to water. Some species are more likely to grow near water, in scrubland, parkland or in woodland.
- Use as many features as you can, the more you use the more certain your identification will be. Take into account the overall shape and size of the tree, bark, leaves or needles, flowers, fruits, leaf buds and twigs.


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Ash

The ash tree is the fourth most common tree in Britain and can sometimes be the most prevalent species in a wood. Often large trees, mature specimens may be 40-45 metres tall and up to 400 years old. Often late coming into leaf, and one of the first to lose leaves in autumn. In recent years, Ash has been affected by die back – caused by a fungus Chalara fraxinea

When fully grown, ash trees can reach a height of 35m. Tall and graceful, they often grow together, forming a domed canopy. The bark is pale brown to grey, which fissures as the tree ages. Easily identified in winter by smooth twigs that have distinctively black, velvety leaf buds arranged opposite each other.

Leaves:
pinnately compound, typically comprising 3-6 opposite pairs of light green, oval leaflets with long tips, up to 40cm long. There is an additional singular 'terminal' leaflet at the end. The leaves can move in the direction of sunlight, and sometimes the whole crown of the tree may lean in the direction of the sun. Another characteristic of ash leaves is that they fall when they are still green.

Flowers:
ash is dioecious, meaning that male and female flowers typically grow on different trees, although a single tree can also have male and female flowers on different branches. Both male and female flowers are purple and appear before the leaves in spring, growing in spiked clusters at the tips of twigs.

Fruits:
once the female flowers have been pollinated by wind, they develop into conspicuous winged fruits, or 'keys', in late summer and autumn. They fall from the tree in winter and early spring, and are dispersed by birds and mammals..

Ash trees seem prone to lightning strikes, so trees can be found struck in two. They were thought to be good to plant outside houses to protect them from lightning. The tree can live for over a hundred years and although they usually have a girth of 5 to 6 feet. They kill most vegetation growing under them though.

Medicinal Value
Modern medical research has shown that the seed extract can be used in the future to help in the treatment of diabetes, as well as to regulate uric acid in the blood so it can be used in the treatment of gout.

Value to Wildlife
Ash trees make the perfect habitat for a number of different species of wildlife. The airy canopy and early leaf fall allow sunlight to reach the woodland floor, providing optimum conditions for wildflowers such as dog violet, wild garlic and dogs mercury, and consequently insects such as the rare and threatened high brown fritillary butterfly.

Bullfinches eat the winged seeds and woodpeckers, owls, redstarts and nuthatches use the trees for nesting. Because trees are so long lived, they support deadwood specialists such as the lesser stag beetle. Often ash is accompanied by a hazel understory, providing the perfect conditions for dormice.

Ash bark is often covered with lichens and mosses. The leaves are an important food plant for the caterpillars of many species of moth, including the coronet, brick, centre-barred sallow and privet hawk-moth.

How we use ash:
People have used ash timber for years. It is one of the toughest hardwoods and absorbs shocks without splintering. It is used for making tools and sport handles, including hammers, axes, spades, hockey sticks and oars. An attractive wood, it is also used for furniture. Ash coppices well, which traditionally provided wood for firewood and charcoal.

Aspen

Aspen trees are one of the first tree species to repopulate an area that has been cleared by fire or cutting. Groves of Aspen can replenish themselves in as little as fifty years.

Aspen, is a beautiful tree with shimmering foliage. Mature trees grow to 25m. Older trees may be covered with lichen, which gives the trunk a black appearance, and the bark is grey and often pitted with diamond-shaped pores, called lenticels. The uppermost branches are often bent over horizontally. Twigs are dark brown, slender and shiny.

Leaves:
Round with large, irregular blunt teeth. The leaf stalks are flattened and flexible near the leaf blade, which is why the leaves flutter so easily. Young leaves are coppery coloured before becoming green, then turn a vibrant yellow or occasionally red before falling in autumn.

Flowers:
Aspen is dioecious, meaning male and female flowers (catkins) are found on separate trees, in March and April

Fruits:
Once pollinated, female catkins ripen to release tiny fluffy seeds in summer. Aspen can also propagate itself by suckers.

Winter Twigs
The twigs are quite shiny, and the buds brown and pointed.

Medicinal Value
The bark of Aspen contains analgesic and anti-inflammatory properties. Native American women would drink a tea made from the leaves to ease menstrual cramps. This tea also aided in alleviating diarrhea and urinary disorders. A poultice made from the root was used for cuts and bruises.

Value to Wildlife:
Aspen trees attract a wide variety of insects, including two gall midges and the aspen hoverfly, which feeds in dead aspen wood. These insects provide a variety of food for predators such as bird and ladybirds. Deadwood cavities provide nesting opportunities for birds such as the woodpecker. Aspen is a preferred species for beavers, which are native to the UK.

How we use aspen:
Aspen wood is lightweight, and was used for making oars and paddles, surgical splints and wagon bottoms.


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Beech

Beech may grow to form beautiful, stately trees (up to 30 or 40M high); the trunk may be massive. It is a relatively fast growing species, that is to be found on well drained soils. Its root system is relatively shallow, and the tree is, therefore, susceptible to high winds and also drought.
mature trees grow to a height of more than 40m and develop a huge domed crown. The bark is smooth, thin and grey, often with slight horizontal etchings. The reddish brown, torpedo-shaped leaf buds form on short stalks, and have a distinctive criss-cross pattern.

Leaves:
young leaves are lime green with silky hairs, which become darker green and lose their hairs as they mature. They are 4–9cm long, stalked, oval and pointed at the tip, with a wavy edge.

Flowers:
beech is monoecious, meaning both male and female flowers grow on the same tree, in April and May. The tassel-like male catkins hang from long stalks at the end of twigs, while female flowers grow in pairs, surrounded by a cup.

Fruits:
the cup becomes woody once pollinated, and encloses one or two beech nuts (known as beechmast). Beech is wind pollinated.
The seeds / nuts constitute what is sometimes termed the mast, and the number produced varies tremendously from year to year.

Medicinal Values
The tar is stimulating and antiseptic, used internally as a stimulating expectorant in chronic bronchitis, or externally as an application in various skin diseases.

The oil is used in the same ways as the other fixed oils of its class.

Value to Wildlife:
Due to its dense canopy, rarer plant species are associated with beech woodland, such as box, coralroot bitter-cress, and a variety of orchids including red helleborine. Beech woodland makes an important habitat for many butterflies, particularly in open glades and along woodland rides.

Beech foliage is eaten by the caterpillars of a number of moths, including the barred hook-tip, clay triple-lines and olive crescent. The seeds are eaten by mice, voles, squirrels and birds.

Native truffle fungi grow in beech woods. These fungi are ectomycorrhizal, which means they help the host tree obtain nutrients in exchange for some of the sugar the tree produces through photosynthesis. Remember to take expert advice before picking or eating any wild fungi.

Because beech trees live for so long they provide habitats for many deadwood specialists such as hole-nesting birds and wood-boring insects. The bark is often home to a variety of fungi, mosses and lichens.

How we use beech:
Beech timber is used for a variety of purposes, including fuel, furniture, cooking utensils, tool handles and sports equipment. The wood burns well and was traditionally used to smoke herring. The edible nuts, or masts, were once used to feed pigs, and in France they are still sometimes roasted and used as a coffee substitute.

Beech makes a popular hedging plant. If clipped it doesn't shed its leaves, and provides a year-round dense screen, which provides a great habitat for garden birds.

Birch

They are relatively short lived trees, which are quick to colonise open areas: they are a pioneer species. After the last Ice Age, they were amongst the first species to colonise the UK.

mature trees can reach 30m in height, forming a light canopy with elegant, drooping branches. The white bark sheds layers like tissue paper and becomes black and rugged at the base. As the trees mature, the bark develops dark, diamond-shaped fissures. Twigs are smooth and have small dark warts

Dried pieces of bark are excellent for lighting a campfire.

Leaves:
light green, small and triangular-shaped with a toothed edge, which fade to yellow in autumn.

Flowers:
silver birch is monoecious, meaning both male and female flowers (catkins) are found on the same tree, from April to May. Male catkins are long and yellow-brown in colour, and hang in groups of two to four at the tips of shoots, like lambs' tails. Female catkins are smaller, short, bright green and erect.

Fruits:
after successful pollination (by wind), female catkins thicken and change colour to a dark crimson. Masses of tiny seeds are borne in autumn, which are dispersed by wind.

Medicinal Values
Several health practitioners use the leaves and twigs of the birch tree for medicinal purposes. The leaves and twigs are often boiled to make anti-inflammatory treatments. Birch tree contains betulinic acid that gives it its anti-inflammatory properties, which are helpful in treating conditions like arthritis, high cholesterol, heart and kidney edema, and cystitis.
The medicinal properties of birch tree stimulate the digestive system and aid in better digestion. Its nutrients are also effective in strengthening the bones and boosting overall immunity. Experts usually recommend soaking birch tree leaves in apple cider vinegar for several weeks to help in the release of its minerals and micronutrients. You can consume this vinegar as a part of beverages and meals and drink it directly for treating coughs.

Birch tree contains strong astringent properties that make it an effective natural treatment for skin conditions like eczema, dermatitis, and furunculous. You can soak birch leaves in water for few hours and then use the strained solution for washing the skin as a treatment for these skin problems. It is also good for healing various other skin irritations.

Value to Wildlife:
Birch woods (which may include downy or silver birch, or both) have a light, open canopy, providing the perfect conditions for grasses, mosses, wood anemone, bluebells, wood sorrel and violets to grow.

Silver birch provides food and habitat for more than 300 insect species - the leaves attract aphids, providing food for ladybirds and other species further up the food chain, and are also a food plant for the caterpillars of many moths, including the angle-shades, buff tip, pebble hook-tip, and Kentish glory. Birch trees are particularly associated with specific fungi including fly agaric, woolly milk cap, birch milk cap, birch brittlegill, birch knight, chanterelle and the birch polypore (razor strop).

Woodpeckers and other hole-nesting birds often nest in the trunk, while the seeds are eaten by siskins, greenfinches and redpolls.

How we use birch:
Birch wood is tough and heavy, making it suitable for making furniture, handles and toys. It was used to make hardwearing bobbins, spools and reels for the Lancashire cotton industry. The bark is used for tanning leather.

Elder

The elder is common throughout the UK, being found in woodlands and hedgerows. It is also found growing on 'waste ground' and may be regarded as a 'weed' by some. The flowers of the elder are often gathered for the making of elderflower tea (also, are much visited by insects), and the berries for elderflower wine. Birds consume the berries and thereby assist in the dispersal of the seeds.
The timber of elder is quite soft – but was used in the past for carving and wood whittling.

Leaf
The leaf is a compound, pinnate leaf with 5 or 7 leaflets. Each leaflet is longer than it is wide. The edge of each leaflet is serrated / toothed. There are small hairs present on the underside of the leaflets.

When the burst burst after winter, the emerging leaves have a distinct red tinge to them.

Buds, Bark and Stem
Young twigs are green, but as they age the outer layer turns grey. They often have distinct small brownish / beige bumps. These noticeable little bumps or lumps are breathing pores or lenticels.
The buds are arranged in pairs – opposite to one another.
The bark is often quite gnarled, grooved or corky in appearance.

Flowers and Fruits
The tree or shrub is often covered with a profusion of tiny white flowers in the spring, which give rise to the purple elderberries later in the year.

Medicinal Values
Elderflowers and berries are expectorant and diaphoretic, thus they help to manage and reduce fevers and to rid the body of toxins.

– Elderflowers are also anti-viral and are useful in combating herpes simplex type 1 virus (responsible for cold sores).

– The flowers can be made into champagne, cordials, wine, sorbet, jam and fritters.

Value to Wildlife:
The flowers provide nectar for a variety of insects and the berries are eaten by birds and mammals. Small mammals such as dormice and bank voles eat both the berries and the flowers.

Many moth caterpillars feed on elder foliage, including the white spotted pug, swallowtail, dot moth and buff ermine.

How we use elder :
Elder wood is hard and yellow-white. Mature wood is used for whittling and carving, while smaller stems can be hollowed out to make craft items.

The flowers and berries are mildly poisonous, so should be cooked before eating. The leaves are also poisonous.

The flowers are often used to make wine, cordial or tea, or fried to make fritters. The vitamin C rich berries are often used to make preserves and wine, and can be baked in a pie with blackberries. They are also used to make natural dyes.

Field Maple

mature trees can grow to 20m and live for up to 350 years. The bark is light brown and flaky, and twigs are slender and brown, and develop a corky bark with age. Small, grey leaf buds grow on long stems.

Leaves:
small, dark green and shiny, with five lobes and rounded teeth. They fade to a rich golden yellow before falling in autumn.

Flowers:
the flowers appear to be hermaphrodite, meaning that both male and female reproductive parts are contained within one flower. However, they are likely to be dominated by either male or female sexual parts. They are small, yellow-green, cup-shaped and hang in clusters.

Fruits:
after pollination by insects, flowers develop into large, winged fruits, which are dispersed by wind.

Medicinal Value
Maple leaves are utilized as medicinal herbs. Some people may not readily grasp this belief, but it is a fact. It is natural herbal remedy and alternative medicine for various ailments. It may not be very popular in current times, but there are persons who still benefit from the medicinal values of the leaves. The bark is also a natural remedy.

The medicinal properties of the maple leaf is sedative and tonic. It is an excellent remedy for the liver as well the spleen. It does not only treat these organs but it will bring about a tranquil nature to them as well.

Feeling the blues, irritable or just nonchalant? Then use the maple leaf medicinal herb as tonic to bring a new feeling to the whole system. The bark of the tree is just as good and will bring the same result. They are also very good to treat nervous conditions.

Value to wildlife:
Field maple is attractive to aphids and therefore their predators, including many species of ladybird, hoverfly and bird. The leaves are eaten by the caterpillars of several species of moth, including the sycamore moth, the mocha, the maple pug, the small yellow wave, the prominent and the maple prominent. The flowers provide nectar and pollen for bees and birds, and small mammals eat the fruits.

How we use field maple:
Field maple produces the hardest, highest density timber of all European maples. It is a warm creamy-brown colour with a silky shine. Traditional uses included wood-turning, carving and making musical instruments, particularly harps. The wood polishes well is often used as a veneer.


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Hawthorn

mature trees can reach a height of 15m and are characterised by their dense, thorny habit, though they can grow as a small tree with a single stem. The bark is brown-grey, knotted and fissured, and twigs are slender and brown and covered in thorns. It often hybridises with the UK's other native hawthorn, Midland hawthorn (Crataegus laevigata). Both species are similar and can be hard to tell apart.

Leaves:
around 6cm in length and comprised of toothed lobes, which cut at least halfway to the middle or 'mid-rib'. They turn yellow before falling in autumn.

Flowers:
hawthorns are hermaphrodite, meaning both male and female reproductive parts are contained within each flower. Flowers are highly scented, white or occasionally pink with five petals, and grow in flat-topped clusters.

Fruits:
once pollinated by insects, they develop into deep red fruits known as 'haws'

Medicinal Value:
Hawthorn is used for diseases of the heart and blood vessels such as congestive heart failure (CHF), chest pain, and irregular heartbeat. It is also used to treat both low blood pressure and high blood pressure, "hardening of the arteries" (atherosclerosis), and high cholesterol. So far, research suggests that hawthorn might be effective in treating congestive heart failure, but there hasn't been enough research on other heart-related uses to know if it is effective for them.

Some people use hawthorn for digestive system complaints such as indigestion, diarrhea, and stomach pain. It is also used to reduce anxiety, as a sedative, to increase urine output, and for menstrual problems.

Hawthorn is also used to treat tapeworm and other intestinal infections.

Some people apply hawthorn to the skin for boils, sores, and ulcers. Hawthorn preparations are used as a wash for sores, itching, and frostbite.

Value to wildlife:
Common hawthorn can support more than 300 insects. It is the foodplant for caterpillars of many moths, including the hawthorn, orchard ermine, pear leaf blister, rhomboid tortrix, light emerald, lackey, vapourer, fruitlet mining tortrix, small eggar and lappet moths. Its flowers are eaten by dormice and provide nectar and pollen for bees and other pollinating insects. The haws are rich in antioxidants and are eaten by many migrating birds such as redwings, fieldfares and thrushes, as well as small mammals.

The dense thorny foliage makes fantastic nesting shelter for many species of bird.

How we use hawthorn:
Common hawthorn timber is a creamy brown colour, finely grained and very hard. It can be used in turnery and engraving, and was used to make veneers and cabinets, as well as boxes, tool handles and boat parts. It also makes good firewood and charcoal, and has a reputation for burning at high temperatures.

The young leaves, flower buds and young flowers are all edible. They can be added to green salads and grated root salads. The developing flower buds are particularly good. The haws can be eaten raw but may cause mild stomach upset. They are most commonly used to make jellies, wines and ketchups.

Hazel

hazel is often coppiced, but when left to grow, trees can reach a height of 12m, where it can live for up to 80 years (if coppiced, hazel can live for several hundred years). It has a smooth, grey-brown, bark, which peels with age, and bendy, hairy stems. Leaf buds are oval, blunt and hairy.

Leaves:
round to oval, doubly toothed, hairy and pointed at the tip. Leaves turn yellow before falling in autumn.

Flowers:
hazel is monoecious, meaning that both male and female flowers are found on the same tree, although hazel flowers must be pollinated by pollen from other hazel trees. The yellow male catkins appear before the leaves and hang in clusters, from mid-February. Female flowers are tiny and bud-like with red styles.

Fruits:
once pollinated by wind, the female flowers develop into oval fruits, which hang in groups of one to four. They mature into a nut with a woody shell surrounded by a cup of leafy bracts (modified leaves).

Medicinal Value:
Hazelnuts are recommended especially to anemic persons, pregnant women, children and elderly. Eating 20 hazelnuts in the morning and 20 in the evening has a beneficial effect on the body. Also, they are extremely effective in dissolving kidney stones.

They have a high concentration of vitamin E and B (B1, B6, B9), thereby an excellent antioxidant effect, annihilating free radicals. The B complex vitamins control the metabolism, playing an essential role in the synthesis of neurotransmitters; they also contribute to the “manufacture” of red blood cells, stimulate immunity etc.

Hazelnuts contain monounsaturated fatty acids (such as omega 9) which, among other benefits, prevent obesity and occurrence of type 2 diabetes, by maintaining good blood sugar levels.

Value to wildlife:
Hazel leaves provide food for the caterpillars of many moths, including the large emerald, small white wave, barred umber and nut-tree tussock. In managed woodland where hazel is coppiced, the open wildflower-rich habitat supports many species of butterfly, particularly fritillaries. Coppiced hazel also provides shelter for ground-nesting birds such as the nightingale, nightjar, yellowhammer and willow warbler.

Hazel has long been associated with the dormouse (also known as the hazel dormouse). Not only are hazel nuts used by dormice to fatten up for hibernation, but in spring the leaves are a good source of caterpillars, which dormice also eat.

Hazel nuts are also eaten by woodpeckers, nuthatches, tits, wood pigeons, jays and a number of small mammals. Hazel flowers provide early pollen as a food for bees.

The trunks are often covered in mosses, liverworts and lichens, and the fiery milkcap fungi grows in the soil beneath.

How we use hazel:
Hazel wood can be twisted or knotted, and as such it historically had many uses. These included thatching spars, net stakes, water divining sticks, hurdles and furniture. Hazel was also valued for its nuts, or 'cobs'.

Today, hazel coppice has become an important management strategy in the conservation of woodland habitats for wildlife. The resulting timber is used in many ways, and is becoming increasingly popular as pea sticks and bean poles, used by gardeners.

Holly

mature trees can grow up to 15m and live for 300 years. The bark is smooth and thin with numerous small, brown 'warts', and the stems are dark brown.

Leaves:
dark green, glossy and oval. Younger plants have spiky leaves, but the leaves of older trees are much more likely to be smooth. Leaves in the upper parts of the tree are also likely to be smooth.

Flowers:
holly is dioecious, meaning that male and female flowers occur on different trees. Flowers are white with four petals.

Fruits:
once pollinated by insects, female flowers develop into scarlet berries, which can remain on the tree throughout winter..
The leaves of holly contain a bitter tasting alkaloid – ilicin. It is possible that this deters many leaf eating insects. Indeed, compared to many trees the holly is not subject to sustained insect attack – though it leaves can harbour the holly leaf miner. This is the larval stage of a fly. Its mining activities can cause local discolouration of the leaf – or the entire leaf may be affected though more unusual. The female flowers (when pollinated and fertilised) give rise to toxic bright red berries, each of which may contain up to four seeds

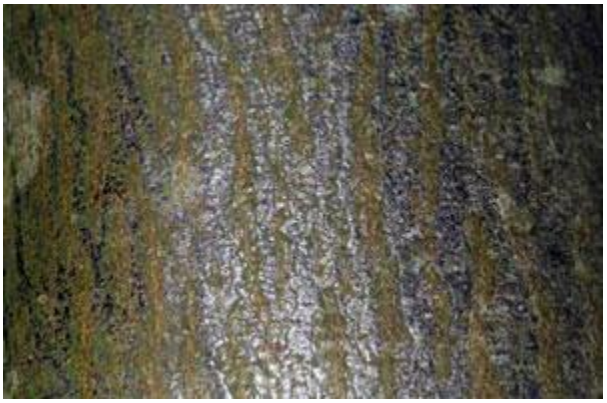
Medicinal Value
One of the most economically important species, Ilex paraguayensis or Maté tea has long been cultivated and used in Brazil and Paraguay as a tea-like beverage containing caffeine. The mixed leaves of Ilex cassine, I. vomitoria, and Ilex dahoon also were used for a hot drink called yaupon or black drink. Drinkers used it ceremonially to “cleanse” themselves, probably due to its sweat- and vomit-inducing effects.

Value to wildlife:
Holly provides dense cover and good nesting opportunities for birds, while its deep, dry leaf litter may be used by hedgehogs and small mammals for hibernation.

The flowers provide nectar and pollen for bees and other pollinating insects. The leaves are eaten by caterpillars of the holly blue butterfly, along with those of various moths including the yellow barred brindle, double-striped pug and the holly tortrix. The smooth leaves found at the tops of holly trees are a winter source of food for deer.

The berries are a vital source of food for birds in winter, and are also eaten by small mammals such as wood mice and dormice.

How we use holly:
Holly wood is the whitest of all woods, and is heavy, hard and fine grained. It can be stained and polished and is used to make furniture or in engraving work. It is commonly used to make walking sticks. Holly wood also makes good firewood and burns with a strong heat.



Hornbeam

often confused with common beech, the bark is pale grey with vertical markings, sometimes with a short, twisted trunk, which develops ridges with age. The twigs are brown-grey and slightly hairy and the leaf buds are similar to beech only shorter, and slightly curved at the tips. Mature trees can reach a height of 30m and live for more than 300 years.

Leaves:
a similar shape to beech leaves - oval, toothed and with pointed tips. Hornbeam leaves, however, are smaller and more deeply furrowed than beech leaves. They become golden yellow to orange before falling in autumn.

Flowers:
hornbeam is monoecious, meaning male and female catkins are found on the same tree.

Fruits:
after pollination by wind, female catkins develop into papery, green winged fruits, known as samaras.

Medicinal Value
The hornbeam is used in the Bach Flower remedies for people who procrastinate and are fatigued while the leaves are used as compresses to stop bleeding and heal wounds. The distilled water from the leaves is used as eye lotion. The leaves should be harvested in autumn and dried then ground to a powder to put on wounds. You can also make a tisane with the leaves, either fresh or dried, or a decoction for skin problems which uses 2 tsps of dried leaves, powdered, to 250 mls water, boiled for 10 minutes. Alternatively the powder can be fried in lard and left to cool to make an ointment for the skin, which should be applied in a thin layer twice a day. For itchy skin, the powdered leaves can be steeped in vinegar (50 grams per 500 mls vinegar) and left for 8 days at room temperature. These remedies are said to be good for promoting hair growth, and the vinegar recipe can be used as a gargle if you have a sore throat.

Value to wildlife:
Like beech, a hornbeam hedge will keep its leaves all year round, providing shelter, roosting, nesting and foraging opportunities for birds and small mammals.

Hornbeam is the food plant for caterpillars of a number of moth species, including the nut tree tussock. Finches and tits and small mammals eat the seeds in autumn.

How we use hornbeam:
Hornbeam timber is a pale creamy white with a flecked grain. It is extremely hard and strong, and so is mainly used for furniture and flooring. Traditional used for the wood included ox-yokes (a wooden beam fitted across the shoulders of an ox to enable it to pull a cart), butchers' chopping blocks and cogs for windmills and water mills. It was also coppiced and pollarded for poles.

Hornbeam burns well and makes good firewood and charcoal.

Horse Chestnut (Conker Tree)

mature horse chestnut trees grow to a height of around 40m, and can live for up to 300 years. The bark is smooth and pinky grey when young, which darkens and develops scaly plates with age. Twigs are hairless and stout, buds are oval, dark red, shiny and sticky.

Leaves:
the palmate leaves comprise 5-7 pointed, toothed leaflets spreading from a central stem.

Flowers:
appearing in May - individual flowers have 4-5 fringed petals, which are white with a pink flush at the base.

Fruits:
once pollinated by insects, each flower develops into a glossy red-brown conker inside a spiky green husk, which falls in autumn.

Medicinal Value:
Horse chestnut contains significant amounts of a poison called esculin and can cause death if eaten raw.

Horse chestnut seed and leaf are used for treating varicose veins, hemorrhoids, and swollen veins (phlebitis).
Horse chestnut seed is used for diarrhea, fever, and enlarged prostate.

Horse chestnut seeds can be processed so that the active chemicals are separated out and concentrated. The resulting “extract” is used for treating a blood circulation problem called chronic venous insufficiency.
Horse chestnut leaf is used for eczema, menstrual pain, soft tissue swelling from bone fracture and sprains, cough, arthritis, and joint pain.

Horse chestnut branch bark is used for malaria and dysentery.
Some people apply horse chestnut branch bark to the skin for lupus and skin ulcers.

Value to wildlife:
The flowers provide a rich source of nectar and pollen to insects, particularly bees. Caterpillars of the triangle moth feed on its leaves, as well as the horse chestnut leaf miner moth, whose caterpillars provide food for blue tits. Deer and other mammals eat the conkers.

How we use horse chestnut:
The most famous use of horse chestnut is in the game of conkers.

Horse chestnut timber is a pale creamy white to light brown with a smooth, soft, fine texture. It's not very strong and is therefore not used commercially, but its soft texture makes it ideal for carving.

Other uses of the conkers include horse medicines, as additives in shampoos and as a starch substitute. Chemicals extracted from conkers can be used to treat strains and bruises.

Larch

mature larch trees grow to 30m and can live for 250 years. Introduced to Britain in the early 17th century, larch comes in two 'flavours' – European and Japanese. It is a fairly fast growing coniferous tree. The crown is cone-shaped when young but becomes broad with age. The bark is pinky brown in colour, thick and develops wide vertical fissures with age. Twigs are amber or slightly pink, and hairless.

Leaves:
light green leaves are soft and needle-like, 2-4cm long, which grow in tufts from short woody knobs, or shoots, on the twigs. They turn golden yellow before falling in autumn.

Flowers:
male flowers form on the underside of shoots, and are globular clusters of creamy yellow anthers. Female flowers are often referred to as ‘larch roses’. Comprising flower-like clusters of scales in pink, green or white, they grow at the tips of shoots.

Fruits:
after pollination by wind, the female flowers ripen into brown cones 3-4cm long with a hollow top. They gradually open their scales to release the winged seeds within. Seeds are distributed by wind.

Medicinal Value:
Arabinogalactan, present in some larch species, has been reported to stimulate the immune system, to exhibit anti-inflammatory actions, and may enhance vascular permeability. Larchwood possesses astringent and diuretic actions. Its antiseptic actions may be useful in treating cystitis, respiratory problems, and wounds.

The balsam of larch is used at a concentration of 10% to 20% in gels and ointments for colds and fevers. No clinical trials have been published addressing its safety or efficacy.

Value to wildlife:
The seeds are eaten by red squirrels and a number of birds, including the siskin and lesser redpoll, while the buds and immature cones are eaten by black grouse. The caterpillars of many moths feed on the foliage, including the case-bearer moth and larch pug. Larch tortrix moth caterpillars eat the cone scales.

How we use larch:
European larch was one of the first trees to be introduced for its timber. The timber has a pale creamy-brown sapwood and a red-brown heartwood. It is hard and resistant to rot, and is often used for fencing, gates and garden furniture.

Oak

English oak is a large deciduous tree up to 20-40m tall. In England, the English oak has assumed the status of a national emblem. As common oaks mature they form a broad and spreading crown with sturdy branches beneath. Their open canopy enables light to penetrate through to the woodland floor, allowing bluebells and primroses to grow below. Their smooth and silvery brown bark becomes rugged and deeply fissured with age. Oak tree growth is particularly rapid in youth but gradually slows at around 120 years. Oaks even shorten with age in order to extend their lifespan.

Leaves:
around 10cm long with 4-5 deep lobes with smooth edges. Leaf-burst occurs mid-May and the leaves have almost no stem and grow in bunches.

Flowers:
are long yellow hanging catkins which distribute pollen into the air.

Fruits:
its fruit, commonly known as acorns, are 2–2.5cm long, borne on lengthy stalks and held tightly by cupules (the cup-shaped base of the acorn). As it ripens, the green acorn takes on a more autumnal, browner colour, loosens from the cupule and falls to the canopy below.

Medicinal Value:
Acorns are soaked to remove tannins prior to using the acorn meat for food. The tannin rich soaking water has antiseptic and anti-viral properties. It may be used as a wash to relieve skin irritations from rashes, minor burns and poison ivy.

Fresh leaves may be gathered for first aid as needed. The inner bark is the most useful medicinal part of the oak. It is bitter and astringent in taste. The inner bark is best gathered in spring from roots protruding through the ground. Dry it and store the bark in a cool dark place.

Value to wildlife:
Oak forests provide a habitat rich in biodiversity; they support more life forms than any other native trees. They host hundreds of species of insect, supplying many British birds with an important food source. In autumn mammals such as badgers and deer take advantage of the falling acorns.

Flower and leaf buds of English oak and sessile oak are the foodplants of the caterpillars of purple hairstreak butterflies.

The soft leaves of English oaks breakdown with ease in autumn and form a rich leaf mould beneath the tree, supporting invertebrates, such as the stag beetle, and numerous fungi, like the oakbug milkcap. Holes and crevices in the tree bark are perfect nesting spots for the pied flycatcher or marsh tit. Several British bat species may also roost in old woodpecker holes or under loose bark, as well as feeding on the rich supply of insects in the tree canopy.

How we use oak:
Oaks produce one of the hardest and most durable timbers on the planet, even its Latin name, Quercus robur, means strength. However, it takes up to 150 years before an oak is ready to use in construction. It has been a prized hardwood timber for thousands of years and remains a popular wood for architectural beams. Modern uses of English oak include flooring, wine barrels and firewood.

Traditionally the leaves, bark and acorns were believed to heal many medical ailments including diarrhoea, inflammation and kidney stones.

Historically humans also collected acorns and processed them into flour for bread making. These culinary techniques have mostly died out following the domestication of wheat production 10,000 years ago, leaving the harvest for wild birds and mammals.

Tannin found in the bark has been used to tan leather since at least Roman times.

Poplars - Black

mature trees grow to 30m and can live for 200 years. The bark is dark brown but often appears black, and is thick with numerous fissures and burrs. Twigs are lumpy and brown in colour.

Leaves:
are shiny, green and heart-shaped, with long tips and a mild scent of balsam. Young leaves are covered in fine, tiny hairs, which they shed by autumn.

Flowers:
black poplar is dioecious, meaning male and female flowers are found on separate trees. Flowers are catkins (male catkins are red and female catkins are yellow-green), and are pollinated by wind.

Fruits:
once fertilised, female catkins develop into fluffy cotton-like seeds, which fall in late summer.

Medicinal Value:
poplar bark contains salicin, one of the components of aspirin. Natives used the bark, as well, for cuts, fevers, and coughs. The bark has antiseptic and expectorant properties.
Poplar sap, readily available in the spring, often is harvested and boiled down like maple syrup. However, it does not store well, and must be used in season.

Value to wildlife:
Black poplar is the foodplant for the caterpillars of many moths, including the hornet, wood leopard, poplar hawk and figure of eighty. The catkins provide an early source of pollen and nectar for bees and other insects, and the seeds are eaten by birds.

How we use black poplar:
Black poplar wood is fine textured, soft and almost white in colour. It resistant to shock, and traditional uses therefore included carts, floorboards and clogs. It was also used to make matches. Today, black poplar timber is used to make artificial limbs, wine cases, pallets, shelving and toys.

Willows – Crack (Salix fragilis)

the crack willow is hard to tell apart from the white willow. Mature trees grow to 25m. The bark is dark brown and develops deep fissures with age, and twigs are slender, flexible, shiny and yellow-brown.

Leaves:
the slender, oval leaves are similar to those of the white willow, being long and slender, dark green above and light green below. However the leaves of the crack willow are shorter than those of the white willow, and they do not have a felty covering of fine, silky white hairs on the underside.

Flowers:
the crack willow is dioecious, meaning male and female flowers are found on separate trees, in May. The male catkins are yellow, while the female catkins are green.

Fruits:
once pollinated by bees, the female catkins transform into woolly white seeds, which are dispersed by wind.

Look out for: at maturity leaves are hairless and shiny on top and sparsely hairy below. Catkins appear before the leaves.

Medicinal Value:
Willow bark acts a lot like aspirin, so it is used for pain, including headache, muscle pain, menstrual cramps, rheumatoid arthritis (RA), osteoarthritis, gout, and a disease of the spine called ankylosing spondylitis.
Willow bark is also used for fever, the common cold, flu, and weight loss.

Value to wildlife
Caterpillars of a number of moth species feed on the foliage, including the puss moth, eyed hawk-moth and red underwing. The catkins provide an important source of early nectar and pollen for bees and other insects, and the branches make good nesting and roosting sites for birds.

How we use crack willow
Willows are prized for their slender, flexible stems, which have been used for many years to weave baskets and 'cribs' for animal food. Larger stems were traditionally used to make small sailing boats. A hybrid of the white willow and crack willow is the cricket bat willow, which is used to make cricket bats.

Yew

mature trees can grow to 20m. The bark is reddish-brown with purple tones, and peeling. The yew is probably the most long-lived tree in northern Europe.

Leaves:
straight, small needles with a pointed tip, and coloured dark green above and green-grey below. They grow in two rows on either side of each twig.

Flowers:
yew is dioecious, meaning that male and female flowers grow on separate trees. These are visible in March and April. Male flowers are insignificant white-yellow globe-like structures. Female flowers are bud-like and scaly, and green when young but becoming brown and acorn-like with age.

Fruits:
unlike many other conifers, the common yew does not actually bear its seeds in a cone. Instead, each seed is enclosed in a red, fleshy, berry-like structure known as an aril which is open at the tip.

The foliage and seed coat of yew contains a cocktail of highly toxic alkaloids. The aril (fleshy red part) is not toxic and is a special favourite of blackbirds which act as efficient seed dispersers. Some birds, such as greenfinches, even manage to remove the toxic seed coat to get at the nutritious embryo.

Medicinal Value:
Yew trees contain the highly poisonous taxane alkaloids. Eating just a few leaves can make a small child severely ill and fatalities have occurred. All parts of the tree are poisonous, with the exception of the bright red arils. The black seeds inside them should not be eaten as they contain poisonous alkaloids.

Value to wildlife:
Yew hedges in particular are incredibly dense, offering protection and nesting opportunities for many birds. The UK's smallest birds - the goldcrest and firecrest - nest in broadleaf woodland with a yew understorey.

The fruit is eaten by birds such as the blackbird, mistle thrush, song thrush and fieldfare, and small mammals such as squirrels and dormice. The leaves are eaten by caterpillars of the satin beauty moth.

How we use yew:
Yew timber is rich orange-brown in colour, closely grained and incredibly strong and durable (hence why old trees can remain standing with hollow trunks). Traditionally the wood was used in turnery and to make long bows and tool handles.