

Trees

Alder *Alnus glutinosa* Fearnóg

Alder is a native deciduous tree species which is often found growing along banks of streams and rivers and in low-lying swampy land. It is a water-loving tree reaching heights of 21m (70ft).

During spring, four stages of production can be seen on an alder at any given time: the old cones of last years fruiting, the new leaf-buds or leaves and the male and female catkins of this year.

Alder is our only broadleaved tree to produce cones. It matures at around 30 years of age and is then capable of a full crop of seeds.

Alder leaves are held out horizontally. They are rounded and of an inverted heart-shape, with the broadest part furthest from the stem. When young they are somewhat sticky, as a gum is produced by the tree to ward off moisture.

Alder catkins form in the autumn preceding their flowering. They remain dormant on the tree throughout winter and open in the spring before the leaves. The female catkins have threads hanging from them which catch the pollen from the developed male catkins, after which they grow larger and become dark reddish-brown as the seeds develop within. The ripe seeds fall in October and November. They have airtight cavities in their walls which allow them to float on water, along with a coating of oil to preserve them.

Alder wood resists decay when in water and has traditionally been used to make boats, canal lockgates, bridges, platforms and jetties. Out of the water alder wood is soft and splits easily. It is used to make bowls and other implements such as furniture and cartwheels as it is easy to work. The catkins and bark can be used to make a black dye. The leaves were once used to tan leather and are preferable to the bark and young shoots, which contain too much tannin.

It is said that putting leaves onto the bare soles of weary feet will help to refresh them. Also, relief from rheumatism can be gained by loosely filling duvets and cushions with alder leaves, which can then be slept in or held on specifically painful areas for certain periods of time.

Birch *Betula pubescens* Beith

The birch is a tall slender tree, growing to about 25 metres tall. It is easily known by its papery white bark that peels from the trunk of older trees. It casts a light dappled shade with its diamond shaped toothed leaves that are 2 – 4 cm long. At the summer's end, these are some of the first to lose their green colour, becoming a golden yellow that adds to the autumn display in the woods and hedgerows. The birch is what is known as a pioneer species, its small light windborne seed easily colonising bare and disturbed soil. It is a light demander and is often found in woodland gaps, hedgerows and on the edges of heaths and bogs. Because birch seed is so small and light, seedlings often establish themselves on fallen logs and mossy tree stumps.



When the wood below rots away the birch tree is left standing on stilt like roots!

Birch grows quickly so that its wood is quite light and not very strong for use as timber.



Nonetheless, the pale colour of the wood makes it popular for modern furniture and flooring. Compared to other woodland trees, birch is quite short-lived, typically surviving to 60 years. It is an exceptionally good tree for wildlife, in particular fungi and invertebrates, and has been shown to support hundreds of different types.

Look out for ‘witches brooms’ that look a little like untidy bird’s nests in the canopy of birch trees. This is actually a growth response to a fungal infection, but it doesn’t do any real harm to the tree. If you see one of these in a birch tree, check the other birches in the area, as it’s likely that they are infected too. In

Celtic times, the birch was considered to be a commoner of the wood, not as important a tree as the mighty oak or ash. However, birch is the first consonant of the Ogham alphabet and was associated with beauty and birth and has many legends attached to it. Birch twigs and branches were used for making brooms, and a dye extracted from the bark was used for tanning leather and preserving fishermen’s lines.

Hazel *Corylus avellana* Coll

The hazel is a multi-stemmed tree that grows up to 6 metres in height. It occurs as an important part of the understorey in oak and ash woods and forms a low canopy in open limestone areas such as the Burren, in Co. Clare. Its multi-stemmed habit is further encouraged by cutting and stands of hazel wood are often managed by ‘coppicing’ – cutting off the rods or poles every 5-9 years. Hazel poles were widely used in medieval times for a variety of things including fencing, as uprights in buildings and as spars to hold thatch on roofs. The leaves of hazel are large, rounded and toothed and come to a sharp tip and are rough to touch. They are very nutritious and are favoured by grazing deer, sheep and cattle when they have access. The flowers of hazel are produced on male and female catkins. The catkins occur in February before the leaves open so that dispersal of the pollen by the wind can occur. The male catkins, called lamb’s tails, are bright yellow with pollen and hang loosely. The female catkins are small and green with crimson stigmas. The seed of the hazel is the hazel nut, which develops from the female flower over the summer months, being ripe in October. The hazel nut is a favoured food item by much of the woodland wild life including mice, voles, squirrels and various birds. In the eighteenth century, burnt hazelnuts mixed with hogs lard were used to cure a scald. The hazel was regarded as the tree of knowledge and wisdom, and the salmon of knowledge in Irish mythology is said to have gained all it knew from eating a hazel nut.



Holly *Ilex aquifolium* Cuilleán

The holly is one of only a few evergreen tree species that is native to Ireland. It can grow as a single stemmed individual or in a bushier, multi-stemmed habit. It is easily known by its bright green prickly leaves that stay on the tree all year round. In woodlands, it is usually found



growing in the understorey and tolerates the shade of taller trees very well. It is particularly associated with the upland oakwoods that are found on acid soils in the west of Ireland. Despite its prickly leaves, holly is a nutritious plant and is favoured among browsers such as deer and cattle.

Interestingly, those leaves that grow high on the tree, out of reach of the browsers are usually less prickly than those that grow within reach! Holly trees have male and female flowers on separate plants, and appear between May and August. Pollination is by insects such as bees, and the female flowers develop into the familiar red berries by October. The berries are a rich source of glucose and are eaten by a variety of birds (pairs of thrushes will defend

‘their’ holly tree very aggressively) and animals but are poisonous to humans. The wood of holly is very fine grained and white and it has been used for decorative work and for chess pieces and wood turning. It is a popular tree in folklore and was thought to ward of lightning, witches and poison when planted near a homestead. The association of holly and its berries with Christmas festivities are not only because of its attractiveness, but probably also reflects the importance of the species in ancient pre Christian mid-winter festivals.

Ash *Fraxinus excelsior* Fuinnseog

The ash is a member of the olive family and is the most northerly species of this group. It is a relatively short-lived tree that may live for about 200 years, although coppiced specimens may survive for more than 300 years. It is fairly demanding in that it requires soils with good nutrient supplies and is often found growing in sites that have some waterlogging, and by lakes and rivers. Ash is a tall slender deciduous tree, with light green leaves that are made up of 9-15 pairs of long narrow leaflets, and casts a relatively light shade. Because of this, a wide variety of other herbs and plants are usually found below ash woods. The tiny flowers appear on the trees in April, before the leaves unfold, and pollen is dispersed by wind. The fruits are ‘helicopters’ or ash keys, and these usually persist on the tree, hanging in dense bunches until the following spring.

Ash produces wood that is more valuable than that of any other native tree. It is flexible and strong and relatively fast and straight growing. Traditionally it has long been used for tool handles, oars, walking sticks and of course for hurley making – the annual ‘clash of the ash’ referring to Ireland’s second national game. The old rhyme ‘oak before ash: in for a splash; ash before oak: in for a soak’ was used to predict how good a summer was to come, but in reality ash is almost always the last tree to come into leaf.

Beech *Fagus sylvatica* Fea

The beech tree is probably the most common non-native broadleaved tree that is found in Irish woodlands. Introduced in medieval times, this large, long lived tree has been planted in demesne woodlands, as hedging, in parks and near farms and homesteads all over the country. In many places it has fully naturalized and has spread by seed, sometimes to the detriment of the native tree species. Beech trees are beautiful things, with smooth silver grey bark and pale green leaves in the Spring that become rich copper in the Autumn. Because they cast such a dense shade, very little grows on the woodland floor in a beech wood. Bluebells are an exception as their spear-shaped leaves can penetrate the thick layer of leaf litter in the spring before the beech leaves unfold overhead. Beech wood is very strong and is traditionally used for furniture making and its charcoal is used for smoking herring in Scotland. The fruit of the beech are small nuts and these provide food for a variety of birds and mammals in the Autumn. In most years, only a small amount of seed is produced, but every few years a ‘mast’ or bumper crop occurs. Beech trees have notoriously shallow roots and older trees are very vulnerable to being windblown. Many edible mushrooms are found growing in association with beech trees. These include chanterelles and Russula. If beeches survive long enough they eventually become hollow and are then very important habitat for insects, bats and birds. They can survive standing and hollow for decades. The latin name for beech ‘*Fagus*’ derives from the Greek, *phagein*, which means to eat. In the past, beech nuts were eaten in Europe in times of famine and are still roasted and used as a coffee substitute in France.

Hawthorn *Crataegus monogyna* Sceach geal

The hawthorn is one of the most common trees to be found in the countryside. It is present in woods, in hedges, colonizing abandoned farmland, and as single trees in grazed fields. It is also known as the whitethorn because of its display of abundant white flowers that appear in May. It usually grows more like a bush than a tree but can achieve heights of up to about 20 feet (6 m). Its dense tangled crown provides good shelter and it is a very popular choice for nesting birds. The creamy white and sweetly scented flowers are very attractive to a wide range of insects and provide an important food source to flies, wasps and bees in early summer. The fruits are red and berry-like and called ‘haws’. These are ripe by late August and are a very important food for many birds, including migrating thrushes and also for animals such as voles and mice. The seeds inside the haws pass through the bird guts unharmed and are widely dispersed in this manner. The wood of the hawthorn is very strong and has been used for tool handles, mallets and the teeth in mill wheels. The wood is also good for charcoal and firewood. There are many customs and folk beliefs attached to the hawthorn. It is considered unlucky to bring the flowers into the house, and recent studies have found that a chemical formed during the early stages of tissue decay is also found in hawthorn, so perhaps an association with the smell of death is the reason for this belief.



In South western England, there is a famous hawthorn which is supposed to have grown from the staff carried by Joseph of Arimathea when he came trading to Britain.

Oak *Quercus petraea* Dair

The oak is considered to be the king of the wood, and is Ireland's national tree. Two species



occur in Ireland: pedunculate oak (*Quercus robur*) and sessile oak (*Q. petraea*). The sessile oak is most commonly found over the acid soils in the uplands of western Ireland. More than 600 types of oak are found worldwide, and the biggest diversity is found in Central America. The oak is a broadleaved species and its leaf is lobed in outline. It is very long lived and may survive for up to 500 years. Its bark is fissured with deep crevices which provide an important habitat for insects: more than 500 species are known to live among oak trees, especially on the foliage and on rotting branches etc. In addition, more species of fungus are associated with oak than with any other native tree. The fruit of the oak is the

acorn, and these occur in low numbers most years and in huge abundance during a bumper or mast year. Acorns are fed upon by a huge range of animals including jays, pigeons, thrushes, squirrels, mice and even pigs and occasionally deer. In medieval Britain, pannage rights *i.e.* the right to allow pigs to eat acorns in the woods, were of significant value to peasant farmers. The wood of the oak is strong and durable. There is evidence of oak timber being in use since the Bronze Age in Ireland, and ancient dug out boats of oak have been found preserved beneath our peat bogs. Our oak woods today are much reduced from their former extent. At one time they covered more than $\frac{1}{2}$ of the countryside and today they cover less than one half of a percent. In addition, the remaining ancient woodland that has survived is threatened with invasion by alien plants such as *Rhododendron* and also suffers from severe overgrazing by deer and sheep, all of which prevents the woodlands from regenerating.

Larch *Larix decidua*

The larch is a needle leaved tree native to Central Europe. It is widely planted in mixed and coniferous woodlands in Ireland. It is unusual among the conifers planted here in that it is deciduous; in Autumn, the leaves turn yellow-brown before falling and fresh green leaves are grown again each Spring. The larch has rather spherical cones that sit erect on the branch tips. These are bright red when young and mature to a woody brown colour. It is a tall straight stemmed tree that can grow up to 35 metres in height. Because of its deciduous habit and the relatively light shade that it casts, there are usually more plants growing beneath it than under other conifer species. Its tiny seeds provide food for red squirrels and birds such as siskins, goldcrests and



members of the tit family are often found foraging in its branches.

Rowan *Sorbus aucuparia* Caorthann

This tree is often known as ‘the lady of the wood’ because of its all year round beauty. It is a slender tree with pale silvery bark and serrated pinnate leaves. In May and August, it is densely covered in bunches of white flowers and scarlet berries appear as early as August. It occurs across a variety of soil types, and will tolerate even very acid soils. In addition it grows at very high altitude, up to 975 metres. It is a very good tree for wildlife, especially as it is the only large flowering tree that grows so high in the uplands. The flowers provide nectar for a wide variety of beetles, moths, flies wasps and bees and the fruits are eaten by migrating and resident birds, small mammals and even pine martens. The wood is quite tough and was traditionally used for tool handles and cart-wheels. It seldom grows large enough to provide planks for building purposes. The rowan tree is very popular in folklore and one old name for it is *fid na ndruid*, the wizard’s tree. It was planted near farmsteads (especially in Scotland) to protect against evil spirits, and was highly thought of as protection for cattle. A branch was frequently kept in the cattle byre to ensure good milk yields. This tradition may have its roots in the fact that in Scandinavia, bark peelings from the rowan tree were added to the winter feed given to cattle.



Scot’s Pine *Pinus sylvestris* Giuis

As the climate warmed after the end of the last ice-age, 10,000 years ago, scot’s pine and birch trees colonized the light, sandy soils that developed on the uplands of Ireland, particularly in the south and west of the country. As the climate continued to change so too did the landscape as other more slow moving species arrived. In damper and cooler times, blanket peat began to develop on our mountain slopes, and as it did it smothered many stands of scot’s pine – and their preserved remains are still visible in peat bogs today. Scot’s pine became extinct in Ireland during the early Christian era, but it has been widely reintroduced since medieval times, and today is well naturalized and colonises suitable habitat. It is an important part of the woodland habitat and provides year-round shelter and food for a variety of birds and animals. It provides excellent timber which in the past was particularly sought after for ship building. Today it is very popular in building and is known as ‘red deal’ in the trade. It is also rich in Vitamin C, and a tea made from its chopped needle leaves was used by North American Indians as a treatment for scurvy.



Willows *Salix* spp. Saileach

Salix cinerea – Grey Willow

Salix caprea – Goat Willow

Salix alba – White Willow

Salix aurita - Eared Willow

Salix multinervis – Grey x eared willow

The willows are a group of deciduous shrubs and small trees with simple leaves that vary from long and lanceolate to rounded and wind pollinated flowers produced in catkins. They are generally pioneer species, colonizing bare or grassy ground, and thriving where there is abundant light. They are often found in wet and waterlogged habitats such as lakeshores, streamsides and wet valley bottoms. They regrow vigorously when coppiced (cut) and their wood is usually flexible and fast growing and so widely used for weaving and fencing. Identifying willows can be tricky because in addition to the 15 types that may be found in Ireland, there are a variety of hybrids between these species, each with intermediate characters. The weeping willow, grown for its ornamental value in gardens, is native to china and was introduced to Britain and Ireland during the eighteenth century. Willows are extremely important for wildlife. They directly support a huge variety of insects, fungi and lichens and also provide shelter and nesting sites for various birds and animals. Willow has traditionally been used for fodder, and cut branches were often stored in barns for use as winter feed. The wood of the white willow (*Salix alba*) is traditionally used to make cricket bats, and has also been used for making artificial limbs and toys. Willows have been very important in rural economies all over Europe for basket making, weaving of hurdles and for its use in wattling, where frames of woven willow rods were later cemented to make walls and roofs of buildings. In Ireland, the goat willow is thought to be good luck, and walking sticks made of a sally (goat willow) rod were thought to bring good luck to a journey. It is thought that the origins of the saying “knock on wood” came from the age-old act of knocking on a willow tree to avert evil and bring good luck. Yellow and red dyes have been extracted from the roots of various willow species and the bark was used for tanning leather. The Irish harp was traditionally made of willow, the 14th century harp of Brian Boru which is at Trinity College in Dublin is entirely made of willow. Willows have also been used in many different ways in herbal medicine and the compound salicylic acid, taken from the willow is the main ingredient in Aspirin.