

3. Native tree and shrub species

‘Native’ tree and shrub species are those that were present at the end of the last Ice Age. This is as opposed to ‘non-natives’, which are species that have been introduced to the British landscape by man. Native tree and shrub species are better adapted to the local environment, and also tend to have greater wildlife value.

When thinking about what species to plant or encourage in your woodland, it is important to consider a range of factors. These include their potential use (timber or woodfuel), wildlife value and aesthetic characteristics. Perhaps most importantly, it is crucial to think about a species’ ecological requirements, and therefore whether it may be suited to your particular woodland. This section details most native tree and shrub species that may be of interest. As well as helping you to identify species, it also gives information about all these factors.

The species are:

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|-------------------|----------------|---------------------|
| • Alder | • Field maple | • Privet |
| • Alder buckthorn | • Goat willow | • Rowan |
| • Ash | • Grey willow | • Scots Pine |
| • Aspen | • Guelder rose | • Small-leaved lime |
| • Beech | • Hawthorn | • Spindle |
| • Birch | • Hazel | • Sweet chestnut |
| • Blackthorn | • Holly | • Wayfaring tree |
| • Buckthorn | • Hornbeam | • Whitebeam |
| • Crab apple | • Juniper | • Wild cherry |
| • Dogwood | • Oak | • Yew |

For a more detailed analysis of the tree species that may be suited to your site, see the Ecological Site Classification Decision Support System (ESC-DSS), which is developed by Forest Research (www.forestry.gov.uk/esc). The ESC-DSS is a tool that uses your location to find the tree species that are best suited to your particular site, based on ecological information.

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Species guide

Common alder

Plant in damp areas

Light demanding

Frost resistant, hardy Intolerant of exposure

Requires pH>5

Susceptible to *Phytophthora alni*

Seeds are eaten by birds (especially ducks, redpolls and siskins).



Alder buckthorn

Previously coppiced for charcoal

Shade tolerant, but prefers sunlight or moderate shade

Prefers acidic soils

Grows in wet woodland or riverbanks

Berries for birds, food plant for yellow brimstone butterfly



Ash

Good timber species.

No longer recommended in planting due to outbreak of Chalara.

Food plant for privet hawk moth.

Prized for its firewood.



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Aspen

Intolerant of shade.

Light demanding, fast growing, frost resistant, hardy. Moderately tolerant of exposure

Grows on range of sites (slightly dry to wet; nutrient poor to rich soils)

Unlikely to be affected by climate change

Food plant for many species of moth

Beech

Good timber species

Damaged by grey squirrels

Shallow rooted, drought intolerant – likely to become unsuitable in southern areas

Shade tolerant, tolerant of wind exposure

Cold hardy (but susceptible to frost when young). Intolerant of compacted, waterlogged or very dry soils

Susceptible to *Phytophthora ramorum*

Beech nuts are eaten by many mammals and birds.



Birch

Quick growing – early growth is windfirm and frost resistant Light demanding

Short-lived

Mature trees die after severe drought – likely to become unsuitable in southern areas

Excellent for moths, and seeds eaten by many birds.



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Blackthorn

Exposure tolerant, prefers moist, well-drained soil in full sun Good as hedging

A valuable source of early nectar as it is early flowering In dense thickets it is a favoured nesting site. Foodplant for black and brown hairstreak butterflies.



Buckthorn

Plant several individuals to ensure cross-pollination and successful fruiting. Shade tolerant Exposure tolerant

Foodplant for yellow brimstone butterfly Fruits favoured by birds (although mildly poisonous to people)

Crab apple

Thrives in heavy soils

Tolerant of partial shade

Exposure tolerant

Prefers moist, well-drained soil

Attractive blossom in spring. Fruits eaten by many birds and mammals



So, you own a woodland?

3. Native tree and shrub species

Dogwood

An edge species (dislikes shade)

Exposure tolerant

Requires well-drained, often alkaline soil

Berries for birds. Foodplant for green hair-streak butterfly, case-bearer moth



Field maple

Can establish under heavy vegetation cover (very shade tolerant), but more light demanding when mature

Fast-growing Exposure tolerant

Beautiful autumn colours. Good for lichens Attracts a wide variety of wildlife e.g. aphids and predators, caterpillars, bees, birds



Goat willow

Plant on ride edges and in damp places

Grows in wet and dry sites

Prefer sunny conditions

Exposure tolerant

Do not grow well in shallow chalk soils

Great value for wildlife, especially moths Catkins provide early source of pollen





3. Native tree and shrub species

Grey willow

Prefers damp ground

Early pollen is valuable to bees and other insects. Leaves are food for purple emperor butterfly caterpillar. Catkins provide early source of pollen



Guelder rose

Prefers moist, slightly alkaline soils, though tolerates most soil types

Shade tolerant

Exposure tolerant

Attractive red berries eaten by birds.



Hawthorn

Exposure tolerant

Tolerant of partial shade, prefers sunny conditions

Good as hedging

Attractive blossom and berries. Foodplant for birds, moths and many insects

Thorns can protect it from browsing – thickets can be useful in protecting more vulnerable broadleaves.



So, you own a woodland?

3. Native tree and shrub species

Hazel

Coppices readily

Grows in full sun or partial shade

Exposure tolerant

Prefers chalky soil

Coppice provides good nest sites for birds and dormice

Hazelnuts eaten by many animals



Holly

Good both as a tree and in hedging

Prefers sunny position

Prefers well-drained soil

Exposure tolerant

Foodplant for holly blue butterfly

Provide important food (berries) and shelter for many birds in winter



Hornbeam

Can be coppiced or pollarded.

Slow growing

Shade tolerant

Very cold hardy, frost resistant Intolerant of exposure

Intolerant of peaty or very low nutrient soils

Vulnerable to squirrels, fruit favoured by hawfinch



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Juniper

Grows in hot, sunny sites

Any well-drained soil

Exposure tolerant

Provides dense nesting cover

Food plant of many moth caterpillars

Fruit eaten by birds



Oak

Excellent timber species

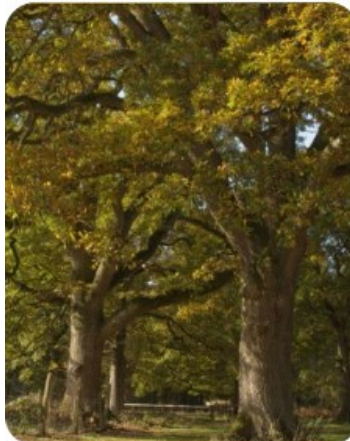
Windfirm, cold hardy

Pedunculate oak: prefers medium to rich, heavy and moist soils

Sessile oak: prefers poor to medium, slightly drier soils Likely to become more productive with climate change, but may suffer from drought

Susceptible to Oak processionary moth

The best tree for wildlife value.



Privet

Grows in full sun or partial shade

Exposure tolerant

Prefers well-drained soils

Evergreen, providing good nesting cover

Main foodplant for privet hawk moth caterpillar and many other butterfly and moth larvae



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Rowan

Suitable for acid sandy soils. Light demanding

Cold hardy, frost tolerant

Tolerant of severe exposure

Prefers poor to medium nutrient, slightly dry to moist soils Very palatable to browsers e.g. deer

Attractive berries, eaten by a variety of birds (especially thrushes)



Scots Pine

Light-demanding, prefers drier soils

Acid to neutral soils, intolerant of alkaline soils

Grows well on low fertility, light soils

Frost hardy

Drought tolerant

Not suited to exposed sites

Can survive and grow in difficult conditions

Likely to be suitable in east England when droughts increase



Small-leaved lime

Coppices well

Shade tolerant

Cold hardy, frost tolerant

Drought resistant Intolerant of exposure

Prefers fresh to moist, and medium to rich nutrient soils Warming climate likely to benefit this species

Flowers have abundant nectar (good for bees)



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So, you own a woodland?



3. Native tree and shrub species

Spindle

- Tolerant of drier conditions
- Grows well in well-drained soils
- Exposure tolerant
- Prefers full sun or partial shade
- Grows in acid or alkaline soils
- Colourful pink fruits follow flowers



Sweet Chestnut

- Suited to warm areas
- Prefers medium to poor soils
- Intolerant of waterlogging Intolerant of alkaline soils
- Intolerant of exposure
- Cold hardy
- Susceptible to Phytophthora
- Likely to benefit from climate change



Wayfaring tree

- Good on thin, dry soils (but grows in any moist but well-drained soil)
- Grows in full sun and partial shade
- Exposure tolerant
- Fruits attractive to birds.



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3. Native tree and shrub species

Whitebeam

Very wind-resistant.

Light-demanding pioneer species

Tolerant of pollution and dry conditions

Prefers fertile, humus-rich soil

Fruits attractive to birds (especially thrushes)

Foodplant of various moth caterpillars



Wild cherry

Plant several individuals to ensure cross-pollination and to obtain the fruits, which are favoured by birds

Light demanding

Cold hardy, frost resistant Intolerant of exposure

Sensitive to drought

Prefers medium to very rich, fresh moisture soils

Generally favoured by climate change (except eastern England where drought increases)

Attractive to insects



Yew

Exposure tolerant

Tolerant of pollution and dry conditions

Grows in any soil, as long as it is well-drained

Valuable timber species. Fruits enjoyed by birds.



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3. Native tree and shrub species

Recommended species by soil type

Wet soils

Highly recommended

Common Alder, Rowan

Recommended

Field Maple, Hawthorn, Holly, Hornbeam, Oak (*Quercus robur*), Small-leaved lime

Not recommended

Ash, Birch, Oak (*Quercus petraea*)

Clay soils

Highly recommended

Goat willow, Holly, Hornbeam, Oak (*Quercus robur*), Whitebeam, Wild cherry

Recommended

Common Alder, Birch, Field Maple, Hawthorn, Oak (*Quercus petraea*), Rowan, Small-leaved lime

Chalk soils

Highly recommended

Beech, Holly, Whitebeam

Recommended

Common Alder, Field maple, Hawthorn, Hornbeam, Rowan, Small-leaved lime, Wild cherry

Not recommended

Birch, Oak

Dry, sandy soils

Highly recommended

Beech, Birch, Holly, Oak (*Quercus petraea*), Whitebeam

Recommended

Field maple, Goat willow, Hornbeam, Oak (*Quercus robur*), Rowan, Small-leaved lime, Wild cherry

Not recommended

Common Alder, Hawthorn