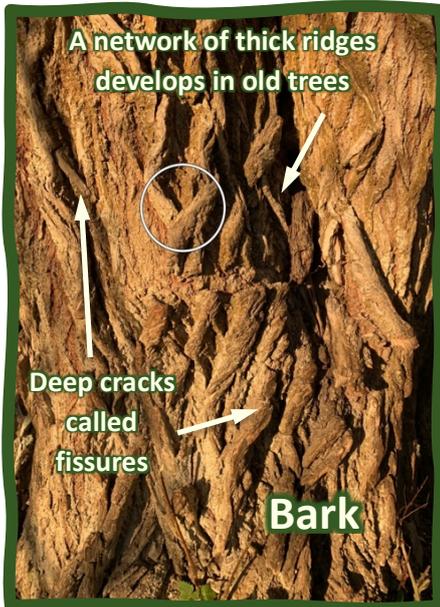


PLANT ID: white willow

Salix alba L.



Practical uses

Its close relative - *Salix alba* var. *caerulea* is used for making cricket bats.

Its bark, like all other willows, contains *salicin*, which when converted by the human body into salicylic acid, is able to relieve pain, inflammation and fever, and so has been used to create the painkilling medicine aspirin.



Male and female flowers are found on separate trees.

PLANT ID: white willow *Salix alba* L.

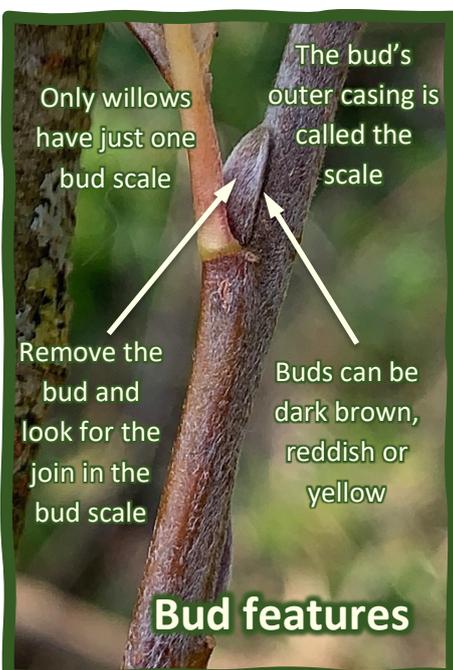
Did you know?

Look for the presence of silk in the folds, rolls or bundles of leaves which is diagnostic of moths like the eyed hawkmoth. Leaf folding activity is a tactic that some caterpillars use to avoid predation and parasitism, which would ultimately kill them.

Willows are more susceptible than most trees to specific Gall inducing insects or fungi; which force the tree to locally re-organise its cell tissue into the abnormal looking bumps and lumps that you might see on its leaves. Cecidology is the name given to the study of Galls.



Not palatable to eat!



Helpful ID Tips:

Always inspect more than one characteristic feature:

Leaves: shape and size; colour and hairiness of upper and lower surfaces

Shoots: colour and hairiness; presence or absence of stipules

Flowers: shape and size and nature of catkins

All willows have alternate leaves and buds. Willows have only one visible bud scale, which are actually two scales fused into one. Look out for the 'join' (suture line).

Beware:

Willows are taxonomically a difficult group to identify because they easily hybridize with each other, creating offspring that have a mix of characteristics of more than one species.

Reproduction strategies:

Pollination: pollinated by insects and the wind.

Seed dispersal: spread by wind, water, birds and mammals.

Other: willow can easily reproduce from broken twigs and fallen branches which take root to create a new tree (a clone).

PLANT ID: white willow

Salix alba L.

Fact File:

CURRENT STATUS: No likelihood of becoming extinct
LOCATION: Widespread across Europe and U.K.

Plant Description (aka Taxonomy)

A deciduous tree that is a member of the *Salix* genus - a part of the *Salicaceae* family. One of the largest and most well-known willows on account of its distinctive pale silvery white leaves. The bark of older trees is deeply fissured. When not pollarded, it has distinct upright angled branches and a narrow crown that can reach up to 30m in height and 1m in diameter.



Flowers: April into May
Flower Structure

Catkins are on short leafy stalks and appear almost together with the bursting new leaves. Yellow male catkins are up to 5cm long; while the females are greenish-yellow.



Fruits

In late May. Unstalked capsules of the elongated mature female catkins are green-yellow and hairless becoming fluffy white with capsules of seeds within.



Leaf

Long and slender (lanceolate) silver-grey leaves, up to 12cm and 2cm wide with finely rounded toothed edges (up to 50 per side). With leaf growth, the silky grey hairs of the upper surface wear off, while the underside retains its silky white hairs giving it, its pale colour.



Habitat

It can be found at sea-level and to an altitude of 2400 m. A fast-growing tree of temperate climates that grows near water on the banks of rivers, lakes or by ponds, streams and marshes.



Buds

Covered in greyish white hairs. Buds can be dark brown, reddish or yellow - tending to lie flat (adpressed) on the twig. Their buds are usually closely held (adpressed) against the twig.

FOOD WEB

Willows are the basis of many food webs. Nectar is gathered by insects. Seeds are eaten by birds and mammals. They host communities of predators and parasites, which all come to feed.

IMPERSONATORS:

Crack willow, *Salix fragilis*, is a close relative of white willow, and is very similar. Watch out though, as *S. alba* often hybridizes with *S. fragilis* to create offspring that exhibit features from both parents.

S. alba's characteristic pale silvery white long slender leaves, its hairy buds and young shoots set it easily apart from crack willow, and when crack willow's twigs are snapped, their dry cracking sound is very distinctive and usually enough to help distinguish between the two trees.



ALIASES

Also known as the swallow-tailed willow and Huntingdon willow by U.K horticulturalists.

What to look for



Unmistakeable with its pale silvery white long slender leaves.

If left to grow naturally, the trunk tends to split in stormy weather often leaving parts of the tree as an obstruction in a river.

Best time to see it and use it

Spring: When the leaves are felty white in appearance. In northern parts of Europe when most trees have not yet begun to show their leaves willow branches are often used instead of palm branches to celebrate Palm Sunday.

Mid-summer: look out for the drifting clouds of silky white seed-bearing fluff that carry off the seeds to new locations.

Stem and trunk

Bole is dark grey with inter-locking thick ridges closely networked together. Twigs rounded, silky hairy when young - later becoming hairless and glossy olive brown in the winter. Twigs are flexible and don't make a distinctive dry snapping sound when broken off like those of crack willow (*S. fragilis*).

PLANT ID: white willow *Salix alba* L.

What's in a name? Willow's scientific name – *alba* - is taken from the Latin for the colour white, on account of its pale coloured leaves.

Botany glossary (part 1)

Ad pressed pressed close to or lying against something

Bole another word for a tree trunk

Bud scale-protects the developing leaves for the following year

Fissured cracks on the tree trunk

Fungi refers to organisms including mushrooms, yeast and mould

Gall swelling of the plant tissue

Botany glossary (part 2)

Suture line a seam like joint or line that marks the junction between two bud scales

Catkins a spike of tiny flowers

Stamen Male part of the flower, each comprising a filament and anther.

Stigma Part of a flower that gets pollen from pollinators such as bees

Lenticels A raised marking on a shoot that is a breathable pore

Leaf mid rib The centre of a leaf from which side veins run out from.

Get up close to the willow by taking a virtual tour using the Pappus film library.



Climate indicators

All willows have fast growth rates and can respond very quickly to environmental change, which makes them important for measuring reactions to our changing climates.

Oldest – Largest – Tallest

The Netherlands holds the record for the oldest willow tree - it is over 260 years old.

The willow with the second largest girth of 9.08m is found along the River Danube in Dunasziget, Hungary.

Willow is one of the fastest growing trees and can grow up to 3m in height in a year, making it perfect for coppicing.

Global distribution

Willow is native to and widespread across Europe and the eastern part of the UK. Elsewhere in the UK, it is regarded as non-native in origin, introduced in ancient times.

Magical willow

Willows have many magical and mythical connections, and the wood has a multitude of uses: musical instruments, clogs, cricket bats, pegs and basket weaving.

Global species risk of extinction (IUCN – Red Data List)

