

# Coniferous trees of Norfolk



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**This is one of three presentations on the Trees of Norfolk covering:**

**Part 1: Broadleaf trees**

**Part 2: Shrubs and smaller trees**

**Part 3: Coniferous trees**

# Bibliography

A Flora of Norfolk – Gillian Beckett, Alec Bull (1999)

Notable Trees of Norwich (N&NNS Occasional Publication no.10) – Rex Hancy (2005)

Flora Britannica (Sinclair-Stevenson) – Richard Mabey (1996)

Collins Complete Guide to British Trees – Paul Sterry (2007)

## **Coniferous trees of Norfolk**

The majority of conifers growing in Norfolk have been deliberately planted, either for ornament or to harvest as commercial forestry. Only three species, Scots Pine, Juniper and Yew are native to Gt Britain. The rest have been introduced, principally from mainland Europe and North America but with some exotics from South America and the orient. Whilst some of these species will regenerate in the wild, most are dependent on amenity planting schemes and the cycle of commercial forestry for their survival.

This presentation concentrates on the most distinctive of these trees, focusing on those that have become part of the Norfolk landscape and so might be encountered on any country walk, especially where there are shelter belts or commercial plantations. Purely ornamental plantings in gardens and parks are excluded.





## Cedar of Lebanon

*Cedrus libani*

This stately tree has been widely planted in parkland settings and in churchyards. It is a native of the Near East, including Lebanon and was first introduced to Gt Britain in 1650.

The picture below shows the mature male catkins which are about 5cm long and shed their pollen in November. The female flowers develop over winter into large purplish-green cones of 9-15cms (*bottom*).







## Western Red Cedar

*Thuja plicata*

Introduced to Gt Britain from western North America, and planted for timber and ornament, regenerating freely.

It has a reddish brown, buttressed trunk with fibrous plates. The rather flattened foliage is glossy and dark green above, paler beneath.

Male and female cones are borne on separate trees.







## Lawson's Cypress

*Chamaecyparis lawsoniana*

Introduced to Gt Britain from western North America in 1854.

In Norfolk it can be found planted in both coniferous and mixed woodlands where it regenerates freely. There are also many ornamental forms grown in parks and gardens.

The small 1cm cones are clustered on the foliage.







## Leyland Cypress

*X Cupressocyparis leylandii*

A fast-growing hybrid between Monterey Cypress and Nootka Cypress, discovered in Montgomeryshire in 1888 and now extensively planted for hedging.

It may be distinguished from Lawson's Cypress by the longer, finely branched twigs which are clothed by short needles and by the larger, unclustered cones which have conical warts on each scale (see *below*).







## Monterey Cypress

*Cupressus macrocarpa*

Introduced to Gt Britain from the Monterey peninsular of California.

Its quick growth, pyramidal form and resistance to sea winds make it an ideal plant for shelter belts.

It is one of the parents of Leyland Cypress, which is a hybrid between this species and Nootka Cypress from Alaska.







## Douglas Fir

*Pseudotsuga menziesii*

Introduced to Gt Britain from western North America in 1827. This tall stately tree is widely planted commercially and will regenerate from seed in shady places. Its cones are about 7.5cm long with projecting 3-toothed bracts.







## Western Hemlock

*Tsuga heterophylla*

Introduced to Gt Britain from western North America in 1852, it is a good, straight-stemmed forest tree but has not been very widely planted. Groups of trees typically cast a very deep shade as can be seen in this illustration.

Its distinctive, rather broad needles are of variable length, and are pale coloured below.







## European Larch

*Larix decidua*

The European Larch was introduced to Gt Britain from central Europe in the 17<sup>th</sup> century. Like all larches it is a deciduous conifer which sheds its needles in winter.

This unusual example which branches from the base can be found at St Helen's Well near Thetford. Normally it has a single straight trunk.

The European Larch can be distinguished from hybrid larches by its oval cones with straight bracts.







## Hybrid Larch

*Larix x marschlinsii*

The Hybrid Larch *L. x marschlinsii* arose in Scotland as a hybrid between European Larch and the introduced Japanese Larch.

It was found to be hardier and faster growing than either parent and so has become the most commonly planted larch.

It can be distinguished by its long cones with recurved bracts whereas the European Larch has oval cones with straight bracts.







## Monkey Puzzle (Chile Pine)

*Araucaria araucana*

Introduced from the high Andes in 1795, the Monkey Puzzle is best known for the primitive character of its foliage. Its dark green, broad-based leathery needles are sharp at the tip. The large spherical cones on female trees turn brown in their second autumn.







## Austrian Pine

*Pinus nigra* (ssp *nigra*)

Introduced from Europe. Its coarsely branched habit makes it unsuitable for timber but its broad rounded crown makes it a popular ornamental planting.

It was planted on the sand dunes at Wells and Holkham from 1855 onwards, where it regenerates naturally.







## Corsican Pine

*Pinus nigra* (ssp *laricio*)

This straight-trunked subspecies of *P.nigra* is widely planted commercially, especially in the Norfolk brecklands.

Its needles are much longer than those of Scots Pine which is sometimes planted with it.

It regenerates naturally but not as freely as Scots Pine.







## Maritime Pine

*Pinus pinaster*

Introduced from the Mediterranean in 1878 and planted on the dunes at Wells and Holkham. Its bark is browner than that of Corsican Pine, and more furrowed. The needles are long, and the clustered cones can be up to 15cm in length (*compared with Corsican Pine in the photograph below*).







## Monterey Pine

*Pinus radiata*

Introduced from California to coastal areas in Gt Britain. It is the only commonly grown pine with needles in groups of three. The distinctive cones are asymmetrical, persisting on the tree for many years.







## Scots Pine

*Pinus sylvestris*

The pollen record shows that Scots Pine was native to Norfolk at the end of the last ice age, though it may subsequently have been lost to the county.

In the early 19<sup>th</sup> century it was widely replanted in Breckland to provide shelter belts. The resulting rows of gnarled trees are today typical of the area.

Elsewhere it has been planted as an ornamental tree in parkland and also as a commercial crop in plantations.

The reddish bark is heavily sculptured and divided into flaky rectangular plates.







## Norway Spruce

*Picea abies*

Introduced to Gt Britain from mainland Europe around 1500. It is now mainly grown for the Christmas tree trade.







## Sitka Spruce

*Picea sitchensis*

Introduced to Gt Britain in 1831 from western North America. It is an important timber tree thriving in areas of high rainfall.

The needles are short and spined at the tip, making the foliage prickly. Cones are distinctive with wavy edged scales, and feel soft when squeezed.







## Wellingtonia

*Sequoiadendron giganteum*

This tree was introduced to Gt Britain in 1853. It is a native of the Sierra Nevada in Canada and is one of the largest tree species in the world, growing to in excess of 300ft in height and living for thousands of years.

The pictured individuals stood by the roadside, close to the Marriott's Way where the parishes of Attleborough, Swannington and Felthorpe all meet, but were felled in Spring 2019.

It has a deeply fissured bark, and distinctive short needles clasp the stem.







## Yew

*Taxus baccata*

Winter-green conifer widely planted in churchyards and parks, where many ancient examples can be found.

The pale red fruit are commonly eaten by wintering thrushes so that seedlings are often found at some distance from parent trees.





## Additional species

**A Flora of Norfolk (*Beckett et al*) lists the following species as introduced to Norfolk and now naturally regenerating:**

**Juniper** *Juniperus communis*

Native in Gt Britain, recorded from just two sites - Stanford (where it is presumed to have been introduced some time after 1824) and Scolt Head (where it was discovered in 1997 presumably from seed).

**Grand Fir** *Abies grandis*

Introduced from western North America. It is the most commonly planted silver fir in Norfolk, regenerating to produce thickets of seedlings.

**The following are also listed in A Flora of Norfolk as occurring in Norfolk but are not known to regenerate naturally:**

**Atlas Cedar** *Cedrus atlantica*

**Deodar** *Cedrus deodara*

**Nootka Cypress** *Chamaecyparis nootkatensis*

**Japanese Cedar** *Cryptomeria japonica*

**Swamp Cypress** *Taxodium distichum*

**Colorado Fir** *Abies concolor*

**Noble Fir** *Abies procera*

**Eastern Hemlock** *Tsuga canadensis*

**Himalayan Pine** *Pinus wallichiana*

**Lodgepole Pine** *Pinus contorta*

**Stone Pine** *Pinus pinea*

**Californian Redwood** *Sequoia sempervirens*

**Dawn Redwood** *Metasequoia glyptostroboides*





## Checklist of Coniferous Trees of Norfolk

Print out this page to record your sightings of coniferous trees in Norfolk.

Species	Where	When
Cedar – Lebanon		
Cedar – Western Red		
Cypress – Lawson's		
Cypress – Leyland		
Cypress – Monterey		
Fir – Douglas		
Hemlock – Western		
Larch – European		
Larch – Hybrid		
Monkey Puzzle		

Species	Where	When
Pine – Austrian		
Pine – Corsican		
Pine – Maritime		
Pine – Monterey		
Pine – Scots		
Spruce – Norway		
Spruce – Sitka		
Wellingtonia		
Yew		

See also the separate guides to broadleaf trees and to shrubs.