STYRAX – HARDY SUMMER FLOWERING 'SNOWBELL TREES'

After all the spectacular floral displays of the spring there is a temptation to assume that there is 'nothing much' to see in Cornish woodland gardens in the summer. While my great grandfather, J C Williams, often told summer visitors to Caerhays that 'flowers got in the way of viewing plants properly' it is a great mistake to ignore what June and July has to offer from the styrax family in extending the flowering season.

Although there are said to be 130 different species of styrax worldwide I can only trace six species as having arrived at Caerhays around 100 years ago. Today we are growing around 30 species and cultivars many of which are completely new to the garden but quite a few are now nearing maturity. The purpose of this pictorial article is therefore to enlighten and tempt readers to try more of the newer styrax introductions in their own gardens.

Our archive records here show the arrival of Styrax hemsleyanus, S. hookeri, S. japonicas, S. obassia, S. veitchiorum and S. wilsonii in the early 1900s mainly via the Veitch nursery.



Styrax hookeri

Styrax hemsleyanus

The sad sight of two of these now elderly, dead and toppled plants dates back to 10 to 15 years ago. Two of our three mature S. japonicus chose to succumb to old age in the same year in 2007 leaving one fading survivor. The mature plant at Burncoose died in exactly the same year after previous massive inflorescences. S. wilsonii died out here 30 years ago and the elderly S. obassia was finally grubbed out this spring.

This puts the longevity of styrax species at around 80 to 100 years.



An elderly trunk of Styrax japonicus

S. veitchiorum, which is the key survivor of the six original species here, fell over 15 to 20 years ago but, fortunately, it shot again from the base and is now a spreading tree some 18-20ft tall which is more or less how tall it was when first measured by Alan Clarke in 1964. By girth and height it remains a Record Tree today in the UK and Ireland Tree Register although it has (quite possibly incorrectly) been renamed recently as S. odoratissimus.



Styrax veitchiorum just before it toppled over and the multi-stemmed plant today

Interestingly, 'New Trees', the bible of recent introductions to cultivation, lists two species of styrax (S. hookeri and S. formosanus) which are <u>not</u> actually new to the UK at all.

Styrax japonicus

Very recently plant taxonomists have suddenly decided that styrax are female so all the old reference books which refer to S. japonic<u>a</u> have now had to be amended. The same applies to other species previously thought to be male.

This is certainly the best known and most widely grown species with bell shaped flowers which coat the undersides of the branches. It is a native of Japan, China and Korea and was collected by Wilson. At the

Coombe Wood nursery auction with the winding up of Veitch's nursery in 1913/4 many of these collections ended up in gardens like Caerhays. It grows into a small tree with an elegant and graceful habit and is prone to root suckering at an early age.

This species self seeded profusely in the dry Punch Bowl in the Valley Gardens in Windsor where I was working as a student gardener. The sandwiches were quickly ejected from my crib box to make room.

Forty years on, some of these seedlings are now in their prime at 30ft or so at Caerhays and Burncoose. Its flowers are at their best in June or early July and the ground is often carpeted with bees which have fallen to the ground having gorged themselves on too much nectar. The trees need to be grown on a bank where you can look up at and admire the massive inflorescences. The reference books make no mention of scent but this is certainly a key feature of this hardy species in maturity. As we have seen the grey nobbled and gorged bark on the trunk is most attractive and unusual too.



Styrax japonicus

S. japonicus is the only species from which named cultivars have so far been selected and these are deservedly being more widely grown. At present we have six of decent flowering size and half a dozen others coming on.

<u>'Emerald Pagoda'</u> (<u>'Sohuksan'</u>) – this form was collected in Korea in only 1985. It is vigorous, upright growing, and has larger leaves than the typical S. japonicus. Most excitingly its flowers are also much larger than the norm for this species albeit appearing in smaller clusters but with good scent and pronounced orange anthers. The autumn colour is exceptional too as it fades to yellow.



Styrax japonicus 'Emerald Pagoda'

<u>'Evening Light'</u> – this is a very new introduction with blackish new growth and leaves which stand out. Rather like Stewartia rostrata leaves as they turn colour for autumn. The flowers have a faint pink tinge which contrasts nicely with the leaves.



Styrax japonicus 'Evening Light'

<u>'Fargesii'</u> – there has been much debate over the decades as to whether this was a subspecies of S. japonicus, as was originally thought, or a cultivar. It would appear that this was originally a Père Farges collection in Szechuan in 1898 and different from the Wilson introductions. Bigger leaves than the norm and vigorous but not that far from the true species with us. Arguably the flowers are slightly less plentiful as well but it is certainly growing into a vigorous small tree.



Styrax japonicus 'Fargesii'

<u>'Pendula'</u> – a genuinely pendulous or cascading tree which is an exceptional ornamental feature in any garden. The Caerhays plant trails right down to ground level and you have to look hard for the flowers which are white with a faint pink tinge usually hidden behind the leaves. The autumn colour is spectacular and this one would get my vote as the second best S. japonicus cultivar.



Styrax japonicus 'Pendula'

<u>'Pink Chimes'</u> – this is a charming semi-drooping small tree which, again, is best planted on a bank where it can be viewed from below. The plant originated in Japan in 1976 but is now quite widely known and admired. A profusion of small pink flowers, darker in the base, are generally a little later to flower than the parent species. Excellent yellow autumn colour too. Perhaps the best of the six cultivars featured here. The three plants growing here are in very different locations. The more heat and sun the better the pink in the flowers and vice versa.



Styrax japonicus 'Pink Chimes'

<u>'Snow Cone'</u> – this cultivar is upright growing with enormous flower clusters only at the ends of its branches. The flowers emerge before or as the leaves appear which makes it stand out in the garden in late June. Indeed, from a distance, you wonder quite what it could be until you appreciate its name.



Styrax japonicus 'Snow Cone'

Styrax americanus – American styrax

This is a medium sized shrub (rather than a small tree) which grows to about 8ft tall and is from the South East United States rather than China and the Far East. It is slow growing and on the tender side outside the

West Country. S. americanus is easily identified by its narrow oval leaves and its narrow, recurved petals. Pendulous flowers appear in groups of one to four at the end of the leafy twigs. Although the species is said to be tender it comes into leaf a little later than the others and has proved, so far, to be just as tough here. It is said that it will regenerate from the base if killed by a late frost but we have yet to experience this.



Styrax americanus

Styrax faberi

This relatively unknown species from low altitudes in southern and eastern China is said to be a shrub but it is already taller than the 3-6ft in height described in 'New Trees' as can be seen in these photographs. The flowers are in terminal racemes consisting of three to five flowers and the fruits are covered in a grey tomentum. Flowering can be as early as April but, at Caerhays, the buds take a long time to open and it is often at its best in July when most of the other species have finished. The autumn colour is insipid and seldom amounts to much.



Styrax faberi

Styrax formosanus

It was only when I saw an erect, upright, single stemmed tree of this species in full flower at Tregrehan that I realised that one of the now dead plants of S. japonicus at Caerhays was, very probably, actually the closely related S. formosanus. However floriferous S. japonicus is, S. formosanus has an even greater leaf to

flower ratio. There are at least as many flowers as leaves, if not more, and this makes this species an absolute 'must' for all woodland gardeners. The flowers smell strongly of jasmine and are slightly smaller than those of S. japonicus although in larger trusses. The more recent introductions to the UK via Kew, Windsor and Crug Farm have nearly all come from Taiwan although the species is said to be widespread in southern China as well. Another 'New Tree' which may well not be. At least in immaturity, the bark is very different to S. japonicus as you can see. We had several attempts to get this species going again and the plant pictured here is only just 10 years old in a situation where it gets some sun and some shade through the day. Our earlier mistakes were made planting it in too hot a location or at too immature a size where the small young leaves got scorched in the heat.



Styrax formosanus

Styrax formosanus var hayatainus

This is a fairly recent introduction from Taiwan. It has different bark to S. formosanus and is not nearly as floriferous. The flowers are not as pendulous or as scented either and the leaves are larger and darker. Nevertheless it is quite outstanding as a 10 year old tree. The plant we have growing in full sun and exposed is far more compact growing, upright and floriferous than the one in dappled shade in a sheltered glade. There is now a botanical question mark as to whether this should actually be reclassified as Styrax suberifolius but I am not knowledgeable enough to judge.



Styrax formosanus var hayatainus

Styrax hemsleyanus

This species was introduced by Wilson in 1900. It has long terminal racemes of flowers rather than flower clusters as in most of the other species. These appear usually in late June. The leaves are long and obovate with seven to ten leaf veins in each leaf. Autumn colour comes on gradually between the leaf veins but it does not, at Caerhays, present an autumn show. We have found this species difficult to propagate from seed from the now deceased original plant. However the replacement tree has grown to 15ft with a spread of 6ft in only 10 years. The original tree was 40ft tall with a girth of 2.5ft when measured in 1971. It is a distinctive and attractive species which is well worth growing. Its leaves can cause confusion with S. obassia but the flowers are very different in form.



Styrax hemsleyanus

Styrax hookeri

Our original tree of this species died aged around 100. It was measured at 8m in height by Owen Johnson in 2006 although nearly dead then. The plant was very probably a Wilson introduction from 1905 although Forrest did introduce it from Yunnan in 1915. The tree did however regularly set viable seed and there are now half a dozen upright younger trees of varying ages in the garden which, at 20ft or so, are now nearly as tall as the original. The leaves are large, obovate and opposite; the flowers appear in small branched panicles or, occasionally, as terminal racemes. These appear irregularly all over the tree. The flowering season is longer and more drawn out than in other species but the flowers tend to be hidden behind or within the leaves. The leaves have five to seven leaf veins. Perhaps the most attractive feature of this easily grown tree is its trunk which exhibits pronounced and easily recognisable grey and brown blotching from an early age. With us S. hookeri is usually the first species to finish flowering. Last year it was virtually over by late May. Sadly it has no appreciable scent.



Styrax hookeri



Styrax hookeri

Styrax obassia

Although still not widely grown or appreciated this is an extremely tough and long established tall tree in the UK. Our original plant finally died only a year ago but there are already several well established replacements. The largest is in Burncoose Garden where it is one of my favourites for several reasons. It flowers later than other species in July with irregular sized large trusses of bell shaped flowers. The rippled, twisted, whitish-brown bark is also most attractive. The large oval or almost round leaves turn a strong yellow in autumn. While the flowers may often be hidden within the leaves this is another species to grow on a bank so that you can look up at the flowers. It is easy to see how the leaves can be confused with S. hemsleyanus.



Styrax obassia



Styrax obassia

Styrax odoratissimus (formerly S. veitchiorum)

This is our only surviving centenarian styrax whose earlier collapse you have already seen. Today the plant is multi stemmed and around 20ft in height with a similar spread. This species is recorded throughout its life here as S. veitchiorum and has easily the largest leaf of any styrax species yet known to us. The young shoots are hairy and the flowers are in smallish pendant terminal panicles. Last year the first flowers appeared alongside the leaves in late March although the main flush was in May. The name change to S. odoratissimus is fairly recent and Tom Hudson has indicated that his 2006 plant of this name is rather different to ours. Since it is extremely rare in cultivation this will be a matter for ongoing debate. What is not in doubt is that it does set seed early in the autumn, but these are extremely hard to germinate successfully. Attempts are now being made to propagate this probably unique and certainly very rare plant from early season cuttings. Despite its perceived name there is no appreciable scent that we have noticed.



Styrax odoratissimus

Styrax officinalis

Now to a species native to Italy, the east Mediterranean and the Near East which has been grown in Britain since the 16th century but is still, very undeservedly, little known. Although not tender, it requires a hot dry situation which is where we have it growing well today. A fragrant resin known as 'storax' may be obtained from wounding the stem. This was used as an expectorant in medicine and as a perfume in sweet chains and bracelets. Storax was also used in incense. The tree grows to around 20ft in height and the flowers appear in June in short terminal clusters of three to eight flowers. They are scented and resemble a citrus flower smell.



Styrax officinalis

Styrax serrulatus

This plant was given to us in 1991 by John Bond, keeper of the gardens at Windsor, following the horrendous hurricane damage here in January 1990. It is the only species which we grow which is evergreen in our climate although there are other tender evergreen styrax species from Mexico. The habit of this Chinese plant is spreading rather than upright and it is flanked in the garden by two species of staphylea which brings together a group of small white flowering trees. S. serrulatus is another species which is simply plastered in terminal racemes of flower but has not got much scent. This seems not to deter the bees. The buds are visible in late March but seldom show colour until early July. We trimmed the lower branches of the tree recently which resulted in a rush of suckering new growth from ground level. Another rare species with a long flowering season and plenty of fruits to collect.



Styrax serrulatus



Styrax serrulatus

Styrax wilsonii

This grew as a 6-8ft tall multi stemmed twiggy shrub outside the back yard at Caerhays and we were producing seedlings of this species (as with S. hookeri) 30 years ago. Despite several showing up all over the garden in the planting records, we have yet to locate a survivor and have had to start again with young plants from Holland. I expect we will find a happy surprise shortly!

In many ways this is the most delicate, attractive and manageable of the styrax species for the smaller garden. The nodding flowers are a pure glistening white at the end of the twigs in June in groups of one to four. It grossly over-seeds and may therefore need dead heading to prolong its longevity.



Styrax wilsonii

Styrax wuyuanensis

This species is in none of the reference books and is the only one not in the Tregrehan styrax collection until very recently. With us it is turning into a slightly drooping ovate tree which is now around 6-8ft tall. Quite a sparse flowerer when young but this seems to be improving with age. The flowers are quite large by styrax standards and have pronounced yellowish-orange anthers. They appear in irregular clusters under the branches with seven, nine or more flowers in each cluster. The striated bark on the younger branches marks it out as something different although this has now darkened to a more conventional styrax bark colour. Some scent but nothing startling.



Styrax wuyuanensis

This largely unscientific and personal account of the styrax collection here would not have occurred without the stimulus of Tom Hudson's generosity, knowledge and experience of his far more extensive and mainly wild sourced styrax collection at Tregrehan. We look forward to seeing S. calvescens, S. dasyanthus, S. shirainus and several other of Tom's numbered, but as yet unnamed, wild collected plants developing and performing here. There are likely to be a good few gentle arguments about identification as the number of species and cultivars grown in the UK extends from the current 50 (or so).

If one had to choose only one of the styracaceae family (including halesia, rehderodendron etc) it would probably be Tregrehan's iconic Melliodendron xylocarpum. Even larger than the five starred flowers of any true styrax species but with the addition of gentle pink stripes. This must await a future article on other styracaceae.



Melliodendron xylocarpum

CARING FOR STYRAX

Asiatic species grow on forest slopes at fairly low altitudes. This means that they prefer a moist environment and milder winters but are capable of withstanding rather hotter summers than ours normally are here. They may be prone to damage to the new growth from late frosts so some shade from early morning sun is advisable in a situation which will also then catch the afternoon sun. These are mainly small trees and too much dappled shade throughout the day will reduce the number of flowers produced and inhibit the development of the tree.

Styrax prefer a well drained but moisture retaining soil with a slightly acidic pH. Exactly what most Cornish gardens have.

S. japonicus has been proven to withstand at least -15° of prolonged frost here in 1963 and other species can probably tolerate -10° although this has not been tested in recent years. They look like small hardy trees and, outside obvious frost pockets, there is no reason to suppose that they are not!

Styrax japonicus and its cultivars, as well as some other species, are prone to producing suckering growth from the base of the main stem and from the roots themselves where the roots are exposed. In maturity it is probably best to remove the suckers to lengthen the life of the original tree. However, in younger plants which produce vigorous spreading suckers, these can be left in place so that the plant develops into a small thicket. This is what occurs in the wild where there is enough space and light for this to happen.

PROPAGATION

One of the great attributes of styrax is that they all produce copious amounts of spherical seed which is usually ripe to pick in October when it turns brown and has fallen to the ground or is easily detached from the tree.

The seed needs a double dormancy. This requires a period of warmth followed by a period of cold for the best germination results. This means it is best to delay sowing until the spring so that the summer provides the necessary warmth followed by the cold in winter and the seeds will then germinate in the spring <u>following</u> sowing. Patience is needed!

Autumn sowing of fresh seed may well result in a partial germination in the next spring. However, full germination may take a further year. Watch out for mice, shrews and slugs in the meantime.



Germinated Styrax japonicus 'Emerald Pagoda' seeds

Styrax can also be rooted easily from softwood cuttings taken early in the summer and treated with a hormone rooting compound. The problem is, as with many types of deciduous tree cuttings, that while rooting is fairly easy, over-wintering the rooted cuttings and getting them to shoot away the next spring is not.

Early cuttings are likely to establish better root systems and it is best to insert them snugly into cell trays or plug trays to avoid any damage to the root systems. The cuttings need to be kept dry and frost free over winter and not potted on until new growth is well established well into the following spring.

Even obeying all these guidelines we have often struggled to overwinter more than a very few of what were nicely rooted cuttings in the autumn before.

Growing styrax from seed is probably easier and a better bet in the long run.

If any members of Cornwall Garden Society would like to experiment with growing styrax species themselves from seed here at Caerhays please would they contact us direct for a packet or two or come and gather them for themselves by arrangement this coming autumn.

Styrax will add a couple of months' enjoyment to the garden after the last yellow magnolias, rhododendrons and azaleas are finished. If you visit the gardens before we close in mid to late June do ask for a map of where all these species are located so that you can see them for yourselves. Some are, undeservedly, quite well off the main garden visitor routes.

There is also a styrax open day, tour and lunch planned for **[14th] June 2018**. To book onto the tour please ring 01872 501 310.

Charles Williams, July 2017