

THE TREES OF WARWICKSHIRE, COVENTRY AND SOLIHULL

PART 3 - SPECIES ACCOUNTS FOR BROADLEAVED TREES (*ACACIA* TO *MORUS*)

Steven Falk, 2011



Sycamore, Compton Wynyates



The trees (alphabetical by scientific name)

***Acacia baileyana* – Cootamundra Wattle**

Source: Australia (New South Wales). Introduced to Britain in about 1888.

Distribution: Rare locally, a very tender species requiring shelter.

Further Notes: Resembling Mimosa but with smaller, silvery-blue foliage.

Key locations for seeing some: Keresley House, Coventry - on owner's 2007 plant list, but not seen by the author; Holbrooks Grange, Long Lawford (a young one in a walled garden).

***Acacia dealbata* – (Hardy) Mimosa**

Source: SE Australia & Tasmania. Introduced to Britain in 1820.

Distribution: Seemingly rare locally and very unusual to find in the Midlands.

Further Notes: A distinctive woody member of the pea and bean family with feathery leaves and bright yellow flowers produced in late winter and spring. The pods resemble those of laburnums.

Key locations for seeing some: High Street, Kenilworth (a fine one in front garden of Clinton House, opposite slope down to Abbey Fields); possibly Barton House, Barton on the Heath (a young specimen with foliage seemingly identical to other *A. dealbata* specimens seen).

Largest local specimen: The Kenilworth tree (1.04m GBH/2008).

***Acer* – Maples**

Medium-sized to large deciduous trees with opposite leaves. All maples produce characteristic double-winged (paired) fruits that cannot really be confused with those of any other tree. This is useful, because the leaf shape of maples varies greatly and many unrelated trees have lobed leaves resembling those of maples (e.g. sweet gums *Liquidamber* and planes *Platanus*). Many maples produce a stunning show of autumn colour, whilst the shrubby 'snake-barks' have attractively striped trunks and branches. Only Field Maple *Acer campestre* is native to Britain, but there are about 150 species worldwide, distributed across the northern hemisphere. The important characters to check include the precise shape of the leaf, the shape and details of the flowers and fruits, the texture of the bark and the autumn colour. The key in Mitchell (1978) is best consulted for critical determination. David Howells has developed a fine collection of maples at Rock Mill Arboretum, Milverton (35 species in 2005).

***Acer barbinerve* – a maple**

Source: Woodlands of NE China. Introduced to Britain in 1890.

Distribution: Rare locally.

Further Notes: An elegant small to medium-sized tree with bright crimson young branches. The five-lobed leaves taper to fine points.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Acer campestre* - Field Maple**

Source: Britain's only native maple – a widespread species over much of England and Wales, but introduced in Scotland.



Many maples have lobed leaves (e.g. Sycamore, top left) but these become divided into leaflets in species like Box Elder (top right) and may even be simple in species like Amur Maple. Inflorescences typically take the form of loose panicles of white or green flowers which give rise to characteristic double-winged fruits (Norway Maple featured, below). The fruit is the most reliable indication of a maple.

Distribution: Very widespread in our area, especially as a native in woods and along hedgerows and streamsides, but not infrequently planted in parks and gardens for its attractive foliage.

Further Notes: Though it can form a medium-sized tree with a full crown, it is most often seen here as a large shrub. The leaf shape is pretty distinctive

within the maples, though the leaf size can vary markedly between specimens, possibly reflecting a foreign provenance of some planted specimens – particularly in parks. It can give a fine show of bright yellow and orange in autumn.

Key locations for seeing some: Formal settings: Priory Park, Warwick (several shrubby specimens); The Rec, Stratford (scattered specimens); Jephson Garden, Leamington Spa (near the boating pool); Allesley Park, Coventry (various places); Elmdon Park, Solihull (including a fine one near the big Hybrid Black Poplar (1.86m GBH/2007)). Natural settings: Bannams Wood, Moreton Bagot (abundant in places); Halford (E bank of R. Stour N of village, some fine ones, largest found in 2006 was 2.12m GBH; Piles Coppice near Binley Woods (old wood edge specimens); Ragley Park (mature ones in many parts of the Park); Farnborough Park (frequent in the hedges around the park).

Largest local specimen: Single-trunked: Ragley Park (a very fine one of 2.90m GBH/2007 by entrance to Park Cottage). An even larger trunked specimen (probably over 3m GBH) was photographed beside the River Stour just N of Halford in 1995 but was leaning heavily and could not be located by 2010. Multiple-trunked: Clopton Park, in a field east of Copton House (a massive, solid base of c6.60m/2007, giving rise to several basally-fused trunks).

***Acer capillipes* – Red Snake-bark Maple**

Source: S Japan. Introduced to Britain in 1894.

Distribution: In a few local parks and gardens, though not always easy to separate from other snake-barks such as *A. rufinerve*. Some of the records cited below may prove to be that species.



Snake-barks are a distinct group of maples with often strikingly marked bark (Pere-David's Maple stem, left) and weakly-lobed leaves (Red Snake-bark foliage, right).

Further Notes: A small, pyramidal tree, which is becoming one of the more frequent snake-barks due its attractive white & red or white & green bark striations. The young growth and leaf stalks are usually bright red. Compared with Grey Snake-bark *A. rufinerve* the leaves are narrower and have 1mm 'pegs' of hairs beneath the leaves at the major vein junctions.

Key locations for seeing some: Warwick Castle; Rock Mill Arboretum, Milverton (recent planting by D. Howells); Crewe Lane Arboretum area, Kenilworth (two, including a fine 0.83m GBH/2006 specimen by the farmstead); Malvern Park, Solihull; Newbold Revel (one in the gardens); possibly Warwick University (several places) and Warwickshire College, Leamington Spa (a fine one 0.89m GBH/2006); Moreton Hall (young ones NE of Hall).

Largest local specimen: Warwickshire College (a tall one 0.89m GBH/2006, but need to confirm it is not *A. rufinerve*).

***Acer cappadocicum* – Cappadocian Maple**

Source: Asia from the Caucasus through the Himalayas to China. Introduced to Britain in 1838.

Distribution: Fairly frequent in local parks and occasionally along roadsides and in larger gardens.

Further Notes: This species could be overlooked for Norway Maple but it has much neater leaves bearing fewer points (not unlike those of Sweet Gum, though that tree never carries maple-like seeds) and has less conspicuous flowers that appear later in spring. It can produce a fine autumn show of yellow and is relatively fast growing. Var 'Aureum' has yellow leaves throughout much of the summer. Var 'Sinicum' has smaller and more deeply lobed leaves, and develops a rougher bark and bright red fruit wings. Lobel's Maple *A. lobelii* is very similar but is always upright (fastigate) in shape, and has more irregular, wavy leaf margins. Cappadocian Maple can sucker very vigorously from its roots, sometimes over quite an extensive area (e.g. the trees at Jephson Gardens near the boating pool).

Key locations for seeing some: Priory Park, Warwick (several); Leamington Spa: Jephson Gardens (several, including a fine one the near main entrance of 2.48m GBH/2007 and some near the boating pool, up to 2.11m /2007 and with profuse suckering), York Walk (several fine ones up to 2.34m/2007), Victoria Park (a very large one, see below) and Willes Road near Jephson Gardens; Riversley Park, Nuneaton (several large ones, largest 2.50m GBH/2006); Brueton Park, Solihull (several, including an 'Aureum'); Ragley Hall Gardens; Hampton Lucy (roadside just W of church); Keresley House, Coventry (a young 'Sinicum').

Largest local specimen: Victoria Park, Leamington Spa, between children's play area and river (2.70m GBH/2007), though some very large ones seem to be present in Stratford within some Tiddington Road rear gardens close to the R. Avon.

***Acer carpinifolium* – Hornbeam-leaved Maple**

Source: The Sapporo highlands of Japan. Introduced to Britain in 1879 by local plant hunter Charles Maries.

Distribution: Rare locally.

Further Notes: One of the least maple-like maples as the leaves are entirely unlobed and do indeed resemble those of a hornbeam or even a sweet chestnut, though the fruits are of the typical maple-type.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Acer circinatum* – Vine Maple**

Source: W North America. Introduced to Britain in 1826.

Distribution: Rare locally.

Further Notes: A spreading, bushy shrub or small tree rather resembling *A. japonicum* and also producing bright autumn colours. The leaves typically have 7 lobes rather than the 9-11 of *A. japonicum*.

Key locations for seeing some: Warwick Castle (not far from Peacock Garden); Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Acer cissifolium* – Vine-leaved Maple**

Source: Mountains of Japan. Introduced to Britain in 1875 or earlier.

Distribution: Rare locally.

Further Notes: A small, rounded tree with trifoliate leaves rather like *A. maximowiczianum* (but without the very downy shoots and leaf stalks). The bronze-tinged leaves turn red and yellow in autumn. In Korea, this is a popular street tree.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Acer x conspicuum* – A hybrid snake-bark maple**

Source: A cross between two snake-barks, *A. davidii* from China and *A. pensylvanicum* from N America, developed in 1961.

Distribution: Rare locally.

Further Notes: An attractive snake-bark with yellow and red younger bark (particularly red in 'Phoenix')

Key locations for seeing some: Rock Mill Arboretum, Milverton and 'The Yews', Moreton Paddox (recent planting of 'Phoenix' in both).

***Acer davidii* – Pere David's Maple**

Source: Central China, discovered by the French missionary Father David and introduced to Britain in the 1800s by the Warwickshire plant hunter Charles Maries.

Distribution: A few local parks and gardens.

Further Notes: This is one of the most frequent of the 'snakebark' maples and generally has the simplest and narrowest leaves of all the snake-barks, with little in the way of side lobes. The young bark is green with white stripes. The form 'George Forrest' has red bark with white stripes (entirely rhubarb-red in the youngest shoots) and bright green foliage comprised of broader leaves. 'Serpentine' has bark purplish-red striped with white and is more densely branched.

Key locations for seeing some: Hampton Lucy (within the Charles Maries Trail); Bancroft Gardens, Stratford (a young memorial tree near the canal bridge, possibly lost during recent landscaping); Warwick Castle (a couple); Moreton Hall (within young plantings NE of the Hall); Brueton Park, Solihull (in

the 'maple zone'); Rock Mill Arboretum, Milverton (young planting including 'George Forrest' and 'Serpentine'); Warwick University (several places); Crewe Lane Arboretum, Kenilworth; Sherbourne Fishing Pool, near Barford (0.53m GBH/2007).

***Acer elegantulum* – a maple**

Source: China. Introduced to Britain in 1982.

Distribution: Rare locally.

Further Notes: A small tree with green bark and small reddish-purple pointed buds. The leaves have five lobes with long, tapered points and the flowers are yellowish and in drooping clumps.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).



The attractive foliage of our only native Acer, the Field Maple (left). Nigel Bishop of Warwick District Council and the author labelled many of the trees of Jephson Gardens in 2007, including this fine Paperbark Maple (right).

***Acer griseum* – Paperbark Maple**

Source: Central China. Introduced to Britain in 1901.

Distribution: Occasional in local parks and larger gardens, but becoming increasingly popular in new planting schemes.

Further Notes: The brownish-orange or red peeling bark of larger trees helps to make this a very distinctive species. The leaves are divided into three leaflets (trifoliate), are greyish beneath, and produce a fine autumn colour.

Key locations for seeing some: Jephson Gardens, Leamington (a nationally significant specimen near the hot house 1.23m GBH/2006); Brueton Park, Solihull (in the 'maple zone'); Riversley Park, Nuneaton; Rock Mill Arboretum, Milverton (recent planting); Ragley Hall garden (some young ones); Crewe

Lane Arboretum area, Kenilworth (several); Warwick Castle (one in Fox's Study).

Largest local specimen: Clifton on Dunsmore, in a spinney beside church served by Robertson Close (lower trunk 1.39m @ 60cm/2007, forking to 1.30m and 1.10m GBH stems, though crown smaller than the Jephson tree).

***Acer grosseri* var *hersii* – Her's (Green Snake-bark) Maple**

Source: China. Introduced to Britain in 1924.

Distribution: Rare locally.

Further Notes: A shrubby 'snake-bark' with olive-green bark striped with white and dark green leaves that turn yellow and crimson in autumn.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells); Crewe Lane Arboretum, Kenilworth (two); Moreton Morrell College (one of several snake-barks by the Hall); Warwick University (several in zones 1 and 3).

***Acer heldreichi* – Heldreich's Maple**

Source: Greece & the Balkans. Introduced to Britain in 1879.

Distribution: Rare locally and nationally.

Further Notes: Most resembling Sycamore *A. pseudoplatanus* but with more deeply incised, glossier leaves and flowers in upright head (not drooping clusters). In spring 2007, the buds of the Brueton tree were still closed whilst nearby Sycamore had new foliage and flowers.

Key locations for seeing some: Brueton Park, Solihull (one medium-sized specimen beside the footpath leading from the Parkridge Centre to Malvern Park).

***Acer henryi* – a maple**

Source: Central China. Introduced to Britain in 1903.

Distribution: Rare locally.

Further Notes: A small to medium-sized, spreading maple with trifoliate leaves resembling *A. cissifolium* but glossy and often untoothed. The stems have blue striations, and the fruits turn red.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Acer hyrcanus* – Balkan Maple**

Source: SE Europe to Iran. Introduced to Britain in 1865.

Distribution: Rare locally and fairly scarce on a national basis.

Further Notes: The foliage is almost intermediate between Field Maple *A. campestre* and Sycamore *A. pseudoplatanus* with more marginal teeth than the former but fewer than the latter. The leaf stalks are relatively long and have conspicuous down where they meet the underside of the leaf blade. It generally matures into a medium-sized, domed tree.

Key locations for seeing some: Coombe Countryside Park, a fine specimen in the arboretum area not far from the large Black Walnut (1.65m GBH/2009).

***Acer japonicum* – Downy Japanese Maple**

Source: Japan. Introduced to Britain in 1864.

Distribution: Scarce locally – most local Japanese maples are Smooth Japanese Maple *A. palmatum*.

Further Notes: Various forms exist, which vary in leaf shape and colour (leaves can be green, red, pinkish or a mixture), though the most easily recognised form has a roundish leaf typically with 9-11 shallow lobes (hence its other name of Full Moon Maple). It can be confused with some varieties of *Acer palmatum* (which never has hairs on the leaf stalks or underside leaf veins) and also uncommon species such as *A. pseudosieboldianum* (which always has an orange tinge to the leaves and gives more brilliant colours in autumn), *A. shirasawanum* (yellow leaves with fine teeth) and *A. circinatum* (which typically has 7 leaf lobes). 'Aconitifolium' has the leaf lobes very deeply dissected, rather like var 'Dissectum' of *A. palmatum*, but with the lobes becoming much broader at their tips.

Key locations for seeing some: Upton House (a fine 'Aconitifolium' in garden S of house); Bedworth Almshouses Quadrangle ('Aconitifolium'); Parkridge Centre, Brueton Park, Solihull (one in woods north of Visitor Centre); Bourton Hall (a fairly young one amongst group of mixed maples).

***Acer lobelii* – Lobel's Maple**

Source: S Italy. Introduced to Britain in 1838.

Distribution: Occasional in local parks and streets, but easily overlooked as Cappadocian Maple *A. cappadocicum*.

Further Notes: Closely resembling *A. cappadocicum*, but with a more upright ('fastigate') habit, and leaves with leaf margins much more wavy and irregular. It is said not to sucker (a typical habit of *A. cappadocicum*), though this rule seems to have been forgotten by some local trees.

Key locations for seeing some: Leamington Spa: Jephson Gardens (a fine one in E section not far from the big Sweet Gum, plus a smaller suckering one S of the fountain pool; also *A. cappadocicum* nearby to compare them with), Cloister Way (a young roadside specimen); Knowle Park, Knowle (a medium-sized specimen in NE corner, plus a rather broader, suckering specimen nearby); Brueton Park, Solihull (in maple zone); Warwick Castle (a young one in the Fox's Study area).

Largest local specimen: Jephson Gardens (1.73m GBH/2006).

***Acer macrophyllum* – Oregon Maple**

Source: W. North America. Introduced to Britain in 1826.

Distribution: Rare locally.

Further Notes: In the wild, this is an inhabitant of the Coast Redwood and Douglas Fir cloud forests, where it grows into the world's largest maple. The leaves are generally very large and deeply dissected, like an exaggerated Silver Maple *A. saccharinum*. In spring, the flowers are arranged in pendulous clusters like a Sycamore *A. pseudoplatanus*. The winged seeds these give rise to have furry bases that bear stinging bristles!

Key locations for seeing some: Warwick University, Westwood Campus (a medium-sized roadside specimen near the pinetum, 1.29m GBH/2007); Warwick Castle (a fairly young one in Fox's Study); Keresley House, Coventry (a young one).

***Acer mandshuricum* – a maple**

Source: Manchuria & Korea. Introduced to Britain in about 1904.

Distribution: Rare locally.

Further Notes: A very rare, medium-sized maple with trifoliate leaves. The young shoots are orange-red in early spring, but the older bark becomes attractively fissured. It produces a rich autumn colour.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Acer maximowiczianum* - Nikko Maple**

Source: Central China and Japan. Introduced to Britain in 1881.

Distribution: Rare locally.

Further Notes: One of rather few trees with a compound leaf comprised of just 3 leaflets (trifoliate), though the very downy leaf stalks and typical maple fruit provide a good clue. Laburnums have similar leaves but have yellow pea-type flowers giving rise to 'pea pod' type fruit and lack downy leaf stalks. The trifoliate Paperbark Maple *A. griseum* has very different bark and there are also a few other very rare trifoliate maples at Rock Mill Arboretum, Milverton.

Key locations for seeing some: Brueton Park in the 'maple zone'; Compton Wynyates (a fine one in meadow beside main entrance).

Largest local specimen: Compton Wynyates (1.08m GBH/2007).

***Acer negundo* - Box Elder (Ashleaf Maple)**

Source: America from Ontario south to Guatemala. Introduced to Britain by 1866.

Distribution: Fairly frequent in local parks, cemeteries, churchyards, larger gardens and as an occasional street tree.

Further Notes: The leaves are typically divided into five rather unevenly shaped leaflets, and were it not for its typical maple fruit (which it does not always produce) you might not recognise it as even being a maple. It can mature into a medium-sized tree in time. The fruit often persist in conspicuous hanging bunches long after the leaves have dropped. Some trees have variegated leaves ('Variegatum').

Key locations for seeing some: Warwick: St Nicholas Park (several, including a fine one by the café), Warwick Castle (two, including a 'Variegatum'), and Northrock (several beside north end of the Warwick Library complex); Riversley Park, Nuneaton; Coventry: London Road Cemetery, (several fine ones) and Caludon Church; Alcester's Birmingham Road Cemetery (a large one, 2.14m @ 1.10m waist/2007); Leamington Spa: York Walk and Jephson Gardens (adjacent to Willes Road); Stratford: Hall's Croft, (SW corner of garden) and Bancroft Gardens (near the small bridge); Church Lawford Church (1.87m GBH/2007); Withybrook Church.

Largest local specimen: Honington Hall garden (2.2m GBH/2007).

Acer nikoense* – old name for *A. maximowiczianum

***Acer opalum* – Italian Maple**

Source: Mountain forests from the Pyrenees to Caucasus, also N Africa. Introduced to Britain in 1752.

Distribution: Seemingly rare locally, but easily overlooked as a strange Sycamore *A. pseudoplatanus*.

Further Notes: Resembling a Sycamore in which the leaves have their basal lobes much reduced, but complicated by the fact that Sycamore leaves are so

variable and can resemble Italian Maple leaves in some older specimens. But the flowers of *A. opalum* are very different, being bright yellow in nodding bunches (as opposed to creamy white in long clusters in Sycamore) and the fruit these produce have their wings almost parallel (typically at 90 -100 degrees in Sycamore). In spring 2007, the Farnborough specimen was still in bud long after nearby Sycamores had acquired new foliage and fully developed flowers.

Key locations for seeing some: Farnborough Park (on the terrace towards the obelisk, on edge of Spinney, 1.22m GBH/2007); possibly other specimens at Bedworth Cemetery and Knowle.



The ribbon-like foliage of a Smooth Japanese Maple var Dissectum (left); stunning autumn foliage of this species in a Kenilworth garden (right).

***Acer palmatum* – Smooth Japanese Maple**

Source: Japan, Korea & China. Introduced to Britain in 1820.

Distribution: Fairly frequent in local parks and gardens.

Further Notes: One of the prettiest maples and with a large variety of forms. The palmate leaves can have five, seven or occasionally nine points. They can be green or purple and vary in shape from simply palmate to strongly 'lacinate' with the fingers of the leaves becoming ribbon-like (most extreme in var 'Dissectum'). Some specimens are difficult to distinguish from *A. japonicum* and other scarcer species.

Key locations for seeing some: Moreton Hall, Moreton Morrell (some fine ones in the pond garden beside the Hall, including 'Dissectum Atropurpureum'); Hampton Manor, Hampton in Arden (several superb specimens, very bright in autumn); War Memorial Park, Coventry (in the sunken garden with accompanying *A. shirasawanum*); Warwick: Warwick Cemetery (fine one near the main entrance), Warwick Castle, St Nicholas

Church (1.50m @ 10cm/2007) and St Mary's Church; Riversley Park, Nuneaton (near Registry Office and a 'Dissectum' beside small pond); Rock Mill Arboretum, Milverton (several varieties, including variegated forms and forms with colourful bark); Crewe Lane Arboretum area, Kenilworth (several varieties); Arbury Hall (including 'Atropurpureum' and 'Heptalobum Osakauri').
Largest local specimen: 'The Yews', Moreton Paddox (largest here 2.27m around base/2007 dividing into several trunks low down).

***Acer pensylvanicum* – Moosewood**

Source: E North America from Nova Scotia to Georgia. Introduced to Britain in 1755.

Distribution: Rare locally.

Further Notes: America's only snake-bark maple. Young stems are green with white stripes like a number of other snake-barks, though the leaves are broader.

Key locations for seeing some: Warwick University (some in zone 3); Rock Mill Arboretum, Milverton (recent planting by D. Howells); Keresley House, Coventry (on owner's 2007 plant list, but not seen by the author); Barton House, Barton on the Heath.

***Acer pentaphyllum* – a maple**

Source: China. Introduced to Britain in the 1930s.

Distribution: Only a single specimen known locally.

Further Notes: One of the rarest maples in the world, but now being cultivated by a number of garden suppliers. It has leaves divided into five narrow leaflets, like a miniature buckeye leaf and forms a shrub rather than a tree. It can give a fine autumn colour but needs warmth and shelter.

Key locations for seeing some: a Warwick garden (in the collection of David Howells).

***Acer platanoides* - Norway Maple**

Source: Europe E to the Caucasus. Introduced to Britain in 1683.

Distribution: A very common tree of streets, parks, gardens, particularly in suburban areas, but sometimes in rural roadside hedges and churchyards.

Further Notes: The leaves are of the familiar maple shape and have concave margins between the many points (convex with teeth in Sycamore *A. pseudoplatanus*, and with fewer points in Cappadocium Maple *A. cappadocicum*). Some striking colour forms occur locally, including variegated and speckled forms like 'Drummondii' and purple forms like 'Schwedleri' (typically purple-green), 'Crimson King' and 'Goldsworth Purple'. The autumn foliage can produce some striking yellows, oranges and reds, though the quality of this display seems to be affected by the weather and is best when a sudden cold spell in autumn is followed by a calm period. The sap is milky (clear in the very similar Sugar Maple *A. saccharum*) and is best checked by snapping a leaf stalk.

Key locations for seeing some: Leamington Spa: Jephson Gardens, (various forms plus other similar maples you can compare it with, largest by boating pool 2.37m GBH/2007); York Walk (several beside York Road, largest is a 'Schwedleri' of 2.38m/2007); Priory Park, Warwick (several varieties, largest 2.40m/2006); Coventry: A45 at Finham (the main tree along the dual

carriageway here), War Memorial Park (many); Caldecott Park, Rugby; Abbey Fields, Kenilworth; Coleshill Cemetery (a very fine one, see below); The Firs Gardens, Stratford (2.49m/2006); Packington Park (one in field S of Hall, 2.91m GBH/2006, plus a very low forking one in the garden W of the Hall of 3.15m @30cm/2006); Ansty Hall (a fine one, possibly 'Schwedleri' by drive, 3.0m GBH/2007). A specimen at Pillerton Priors (Kiblers Lane, 2.20m GBH/2007, surrounded by benches) is noteworthy in that it has very coarsely ridged bark, suggestive of *A. saccharum*, but the foliage and fruit suggests an aberrant *platanoides*.

Largest local specimen: Coleshill Cemetery (3.17m GBH/2006 below a low fork). A large specimen of 3.77m @ 0.6m/1907 was recorded by Elwes & Henry at Newnham Paddox, but no sign of it existed in 2007.



The stunning foliage of a Norway Maple 'Drummondii' (left); intense autumn colour of the same species along Coventry's A45 (right).

***Acer pseudoplatanus* - Sycamore**

Source: Central Europe to the Caucasus. Introduced to Britain by at least 1280, but possibly originally by the Celts.

Distribution: A common and widespread tree here, found in woods, parks, gardens and hedgerows. It is sometimes the dominant tree due to its ability to seed freely. Cultivated forms are occasional in parks and gardens ('Brilliantissimum' is fairly frequent as a small garden tree or shrub).

Further Notes: You would be forgiven for thinking this was a native tree, such is its abundance and its ability to invade woods and gardens. It can be a nuisance in ancient broadleaved woodland and ancient hedges where it often out-competes the native woody species, and its dense shade can destroy woodland ground floras. The leaf shape is highly variable, the leaves tending to be much larger and lobed in young growth but often small and lacking the basal lobes in older growth (which can render them very similar to Italian

Maple *A. opalus*). The foliage also closely resembles Van Volxem's Maple *A. velutinum*. The safest way of separating Sycamore from such species is to check the flowers in spring. Sycamore has particularly long panicles of hanging flowers quite unlike those other species. Some very old specimens (250 years plus) can be found in a few historic parks and churchyards. A number of attractive varieties can be found locally, including 'Variegatum', 'Leopoldii' and 'Simon-Louis Freres' (all with yellow-spangled/splashed leaves), 'Brilliantissimum' and 'Worleei' (which have yellowish or pinkish new leaves) and 'Purpurea' (with attractive pale mauve undersides contrasting with normal uppersides). These help to compensate for its rather disappointing autumn colour. A few of our largest trees appear to be Victorian 'batch-planted specimens' in which several closely-planted trees have fused to create a massive base that gives the false impression of being several centuries old, notably trees at Keresley House and Rugby's St Andrew's Garden.



The distinctive drooping flowers of Sycamore (left) and an example of one of the variegated forms, 'Simon-Louis Freres' (right).

Key locations for seeing some: Leamington Spa: Jephson Gardens (several varieties), Leamington Cemetery (numerous 'Purpurea' at far boundary); Warwick: Priory Park and Warwick Castle; Abbey Fields, Kenilworth (fine ones on Abbey Hill plus two small 'Variegatum's beside Forrest Road); Rugby: Caldicott Park and St Andrew's Garden (the latter site with a fine variegated specimen plus a batch-planted specimen with a basal girth of 5.46m/2007); Ragley Hall Gardens; Berkswell Churchyard (a fine one at the entrance); Allesley Park, Coventry (many, including 'Worleei' and 'Simon-Louis Freres' and a fine, grafted 'Simon-Louis Freres' or 'Variegata' of 4.26m GBH/2007, above the graft line of 1m); Brueton & Malvern Parks, Solihull (various forms); Riversley Park, Nuneaton (includes a 'Spaethii');

Bedworth Cemetery (many); Rock Mill Arboretum, Milverton (young specimens of several varieties); Crewe Lane Arboretum, Kenilworth (a very slow-growing 'Brilliantissimum'); Packington Park (a fine 4.38m GBH/2006 one in field W of The Wilderness); Upton House (some fine large ones, see below); Compton Wynyates (a number of varieties plus a very fine specimen of 5.68m GBH/2007 on the Hill N of the House); Clifton on Dunsmore Church (some fine grafted, variegated specimens, largest 2.99m GBH/2007); Shuckburgh Park (some fine ones visible from surrounding footpaths, the largest 5.67m GBH/2007). Sycamore-dominated 'woods': Wolston Wood, Wolston (some coppiced); some northern section of Coombe Countryside Park; Tocil Wood, Warwick University.

Largest local specimen: The largest good-trunked specimen is at Upton House, beside the entrance drive (N side) towards House (5.85m GBH/2007). A specimen at Keresley House, Coventry has a massive, solid lower trunk of 6.18m @ 90cm/2007, but the trunk divides into numerous stems at about 1m and, as noted above, it may be a 'batch planted' tree, comprised of several individuals – now fused. The Variegated Sycamore at Allesley Park may be one of the largest straight-trunked examples of this variety in Britain.

***Acer pseudosieboldium* – Keijo (Korean) Maple**

Source: NE Asia. Introduced to Britain in 1903.

Distribution: Rare locally.

Further Notes: A very rare shrubby maple closely resembling *A. japonicum*. Capable of producing very bright autumn colours.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

Acer 'pumula'

*A specimen labelled as this with a girth of 1.79m occurs in Arbury Park, in the gardens immediately east of Arbury hall (near the Weeping Beech). Unclear if *A. pumula* (or *A. pumila*) is a bona fide species. It looks like a rather stunted Norway Maple, identical bark, but leaves rather like Sugar Maple.*

***Acer rubrum* – Red Maple**

Source: N America (Newfoundland to Texas in swampy woods). Introduced to Britain in 1656.

Distribution: Occasional in local parks and gardens but becoming more popular.

Further Notes: Rather easily overlooked for a Sycamore or a Silver Maple, but if you see such a tree with bright red or purple leaves in autumn, you may well have a Red Maple. The leaves tend to be narrower than these other two species and often just 3-lobed. The flowers appear in February or March in small bright red bunches. They never hang in long pendulous bunches like sycamore. 'Scanlon' is a fastigate form with an upright shape comparable to a Lobel's Maple.

Key locations for seeing some: Solihull: Brueton Park, (a 'Scanlon' in maple zone near fork in main path), Elmdon Manor Nature Reserve; Caldecott Park, Rugby (some young ones near the nursery); Stratford: Stratford Butterfly Farm (one by entrance) and nearby in The Rec (a young one beside the overflow car park); Crewe Lane Arboretum, Kenilworth (a 'Scanlon' and

another boader one); War Memorial Park, Coventry (towards Coat of Arms Bridge Rd, beside the railway); Woodcote House, Leek Wootton (three fairly young 'Scanlon').

***Acer rufinerve* – Grey Snake-bark (Honshu) Maple**

Source: Japan. Introduced to Britain in 1879.

Distribution: Unclear due to the close resemblance to *A. capillipes*.

Further Notes: A medium-sized snake-bark usually featuring green bark with white stripes (like *A. pensylvanicum* and *A. grosseri*), and providing fine autumn colour. Leaves have distinct side lobes and are typically broader than those of *A. capillipes* and lack the 'pegs' of hairs at the vein junctions beneath.

Key locations for seeing some: Brueton Park, Solihull (several in the 'maple zone'); Moreton Hall (young planting NE of Hall); Rock Mill Arboretum, Milverton (recent planting by D. Howells); Warwick University (zone 3); Newbold Revel (car park); Canley Crematorium, Coventry; Ragley Hall garden; Arbury Hall (in private arboretum).

***Acer saccharinum* - Silver Maple**

Source: North America. Introduced to Britain in 1725.

Distribution: A frequent tree of local parks, cemeteries and roadsides.

Further Notes: One of the most popular maples, especially the cultivar 'Laciniata' which has more deeply incised leaves than the wild (type) form. In summer the silvery underside of the leaf gives a nice texture, but it can also produce a wonderful range of colours from late summer including yellows, oranges purples, pinks and reds – sometimes all on one tree. However, it is also tends to have a rather untidy canopy with a tendency to lose branches. The mature trunk develops vertical scaly ridges rather different to other big maples.

Key locations for seeing some: Leamington Spa: Cloister Crofts (a fine avenue of about two-dozen large ones of the type form, nearly all exceeding 2.50m GBH/2006, the largest 3.02m GBH/2006), Jephson Gardens and nearby Willes Rd (Laciniata), Warwickshire College (several) and York Walk (a fine one close to Adelaide Rd); Warwick: Emscote Rd (several), College Garden (type form), Priory Park (Laciniata) and Saltisford (close to junction with Wedgenock Lane); Caldecott Park, Rugby, Brueton Park, Solihull (largest 2.20m GBH/2006); Abbey Fields, Kenilworth (a couple including a fine one in churchyard); Riversley Park, Nuneaton; Coventry: Allesley Park (many) and War Memorial Park (several); Leek Wootton (Woodcote Lane junction); Alcester Cemetery (two fine ones).

Largest local specimen: Alcester Cemetery (a fine pollard, 3.08m GBH/2007).

***Acer saccharum* - Sugar Maple**

Source: E North America. Introduced to Britain in 1735.

Distribution: Rare locally.

Further Notes: This species could so easily be overlooked as a Norway Maple *A. platanoides*, but has slightly fewer points to its more delicate leaf, its sap is watery rather than milky (snap a leaf stalk to check), the flowers are in flimsy and inconspicuous clumps and the bark of mature trees is somewhat rougher. This is one of the most beloved trees of North America, contributing

heavily to the spectacular red 'fall' colours you find there in autumn. The refined sap of this tree is the main source of maple syrup. Its leaf is featured on the Canadian flag.

Key locations for seeing some: Jephson Gardens, Leamington Spa (not far from the main gate off The Parade, 1.01m GBH/2006); Crewe Lane Arboretum, Kenilworth; Arbury Hall (in private grounds).

***Acer serratum* – a maple**

Source: Taiwan. Introduced to Britain in 1980.

Distribution: Rare locally.

Further Notes: A very rare maple with star-shaped foliage that emerges bronze.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Acer shirasawanum* 'Aureum' – a maple**

Source: Japan. Introduced to Britain in the 1880s.

Distribution: Seemingly rare locally.

Further Notes: A slow-growing, shrubby maple with soft, yellow leaves closely resembling *A. japonicum* but with only tufts of hairs beneath the leaves.

Key locations for seeing some: War Memorial Park, Coventry (one in the sunken Japanese garden); Coombe Abbey Arboretum (SW corner); Rock Mill Arboretum, Milverton (recent planting by D. Howells); Rounds Hill, Kenilworth (a couple in a front garden near the Rouncil Lane junction).

***Acer sieboldianum* – Siebold's Maple**

Source: Japan. Introduced to Britain in the 1880s.

Distribution: Rare locally.

Further Notes: A slow-growing, shrubby maple closely resembling *A. japonicum* but yellow flowers and grey-downy shoots and leaf stalks.

Key locations for seeing some: Warwick University (teste University staff).

***Acer tataricum* – Amur Maple**

Source: NE Asia & Japan. Introduced to Britain in 1860.

Distribution: Occasional in local parks and gardens.

Further Notes: Amur Maple is a form ('Ginnala') of the Tartar Maple, often with weakly-lobed leaves slightly reminiscent of some *Crataegus* thorns or crabs - though sometimes with the lobes scarcely formed and resembling a snake-bark. It is a slow-growing, shrubby species. The fruit have rather broad wings compared with many shrubby maples such as snake-barks and they never have the patterned bark of a snake-bark. The small creamy-white flowers are produced in tight batches and are very different-looking to most maples.

Key locations for seeing some: Warwick: Priory Park, Warwick (beside the Foxglove Tree at the Coventry Road end) and St Nicholas Church (along entrance path leading from Banbury Road); Crewe Lane Arboretum, Kenilworth (several); 'The Yews', Moreton Paddox (a medium-sized one); Ilmington village (front garden of 'The Bevingtons' cottage near the church);

Leam Valley Nature Reserve, Leamington Spa; Bourton Hall (a fairly young one amongst group of mixed maples).



The deeply dissected leaves of Silver Maple 'Laciniata' (left) contrasted against the simple leaves of Amur Maple (right).

***Acer tegmentosum* – a snake-bark maple**

Source: Riverside locations in Asia from Russia to Korea. Introduced to Britain in about 1880.

Distribution: Rare locally.

Further Notes: A small to medium-sized snake-bark with apple-green bark striped with white, most resembling *A. pensylvanicum*.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Acer* 'species near *tetramerum*' – a maple**

Source: China. Recently discovered.

Distribution: Rare locally.

Further Notes: Seemingly an undescribed species discovered by the Japanese botanist Mikinori Ogusi and currently termed coll.95090. Maples are one of a number of tree groups where it is still possible to find new species, particularly in the hill forests of countries like China.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Acer trautvetteri* – Trautvetter's Maple**

Source: Caucasus to Iran. Introduced to Britain in 1866.

Distribution: Only a single local site known.

Further Notes: A very unusual maple closely resembling *A. heldreichii* (with leaves best described as sycamore-like but with much deeper lobing) and sometimes considered just a form of that species. Further clues to *trautvetteri* include the bright red-brown buds and the bright pink-red, incurving wings of the fruit.

Key locations for seeing some: Keresley House, Coventry (a young one).

***Acer triflorum* – Chosen Maple**

Source: N. China & Korea. Introduced to Britain in 1923.

Distribution: Rare locally.

Further Notes: A very rare, small tree with trifoliate leaves. The bark becomes deeply fissured and peeling grey-brown and the autumn colour is spectacular. It needs hot summers to grow well.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Acer tschonoskii* – a maple**

Source: Japan. Introduced to Britain in 1902.

Distribution: Rare locally.

Further Notes: A very rare, graceful small tree or large shrub with 5-lobed leaves ending in a long point and with leaf margins strongly and doubly toothed. The bark has green vertical striations.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Acer velutinum* – Downy and Van Volxem's Maple**

Source: Caucasus & Iran. Introduced to Britain in 1873.

Distribution: Rare locally, but easily overlooked as a Sycamore *A. pseudoplatanus*.

Further Notes: Best distinguished from *A. pseudoplatanus* by the very different flowers (small bunches of erect ones rather than large drooping bunches). The bark on mature trees is much smoother, and often bears rings around branches. Mostly found as the Caucasus form 'Vanvolxemii' (Van Volxem's Maple) which has larger leaves than *A. pseudoplatanus* (up to 25cm long).

Key locations for seeing some: Warwick Sports Club, Hampton Road (2 specimens planted 1991 & 1992, teste Mr Coleman); reputedly planted in Cheylysemore, Coventry by Coventry City Council (teste Mike Hemming).

***Aesculus* – Horse Chestnuts and Buckeyes**

All these trees have 'palmately compound' leaves i.e. the leaf is divided into five leaflets arising from a common point on the leaf stalk. Their seeds take the form of a 'conkers' contained within a softer case which may be spiked. Americans call them 'buckeyes' because that is rather what conkers look like. But the 'Horse' of the English name probably derives from the Common Horse Chestnut's use as horse medicine. All *Aesculus* species have very conspicuous spikes of showy flowers that are insect pollinated (plus hummingbird pollinated in the case of some American species). Important features to look out for include the size and shape of the leaves, colour, shape and date of the flowers, size and stickiness of the buds, spikiness of the fruit

and the size and shape of mature trees. About a dozen species occur worldwide, distributed across the northern hemisphere, though none are native to Britain.



The palmately compound foliage (left) and 'conker' (right) of Common Horse Chestnut.

***Aesculus x carnea* – Red Horse Chestnut**

Source: A 'transatlantic' hybrid between the Red Buckeye *A. pavia* (an American species) and the Common Horse Chestnut *A. hippocastanum* (a European species). Introduced to Britain by 1818.

Distribution: A very frequent tree of local streetsides, parks and cemeteries, often planted alongside its European parent.

Further Notes: Easy enough to identify when flowering - its red flowers are unmistakable and peak about 2-3 weeks later than *A. hippocastanum*. After this, the smaller, darker, shinier and curlier leaves are a reliable distinction, also the less spiky fruit and the scarcely-sticky buds. It also tends to be a smaller tree, perhaps reflecting the small size of its American parent. Local trees, especially young ones, are currently falling victim to a *Phytophthora* fungus, which is causing much death through 'Bleeding Canker'. Several varieties are found locally, which vary in the colour of their flowers. 'Briotii' produces the reddest flowers and glossiest leaves and is frequent.

'Plantierensis' has particularly attractive pink and apricot flowers and is a rarer back-cross with *A. hippocastanum*. Older specimens tend to be grafted onto bases of *H. hippocastanum* and the graft line and differences in bark texture of the two is often very obvious. The autumn colours can be fine with bright reds, oranges and yellows.

Key locations for seeing some: Leamington Spa: Jephson Gardens, the Pump Room Gardens and Victoria Park (some fine ones at last site, largest 3.45m GBH/2007); Chestnut Avenue, Kenilworth (the dominant tree); Coombe Countryside Park (many near lake bridge); Coventry: Leamington Road,

Stivichall (many roadside ones), Ragley Park (some fine ones along drive to the House); Swanswell Park (3.33m @ 1m, below graft line/2007); Umberslade Park (some fine ones visible from public footpath E of Hall, largest measured 3.10m GNH/2007); Frankton Manor (a fine one of 3.35m @ 1.2m/2007); Maidenhead Road, Stratford (3.54m GBH/2007). 'Plantierensis': St Nicholas Park (one near river near the small copse); possibly another at the Dunchurch Park Hotel (only seen from a distance).

Largest local specimen: a grafted specimen in the garden of Herbert Gray College, Rugby, close to St Andrews Church is currently the national champion (lower trunk 4.0m @ 1m but forking just above this point).

***Aesculus flava* – Yellow Buckeye**

Source: The Appalachian Mountains of eastern USA. Introduced to Britain in 1764.

Distribution: Occasional in local parks and larger gardens, though some listed specimens have proven to be the very similar *A. glabra*.

Further Notes: A particularly attractive *Aesculus* with smaller, neater leaves than *A. hippocastanum*, yellow or pink-yellow flowers and spectacular show of orange and scarlet autumn foliage. The conker-bearing fruit are smooth without the spikes or projections of *A. hippocastanum*, *A. x carnea* or *A. glabra*. Unlike *A. glabra*, the flower anthers do not project beyond the petals and the leaflets tend to be a little larger. It can form a medium-sized tree in time, and older specimens are often grafted onto *A. hippocastanum* bases.

Key locations for seeing some: Water Orton Parish Church (seven fine grafted ones, the largest is 2.01m @ 1m/2007 below graft line of c1.5m, becoming 1.40m @ 2m); Jephson Gardens, Leamington Spa (one in NE corner, with some *A. glabra* elsewhere in the park to compare it against); Wootton Court Spinney, Leek Wootton (0.84m GBH/2006); Compton Wynnyates (a fine one beside pool E of House, 1.90m GBH/2007 with a very low graft line); Shuckburgh Park 'Wild Garden' area (?Woodway Grange, Coventry (one was present in the early 1990s); ?Hampton in Arden (Engine Grounds says S. Apted, late 1980s).

Largest local specimen: Shuckburgh Park 'Wild Garden' area (stock 2.54m @ 1m/2007 becoming 1.82m GBH above a graft line of 1.20m).

***Aesculus glabra* – Ohio Buckeye**

Source: SE and Central USA. Introduced to Britain in about 1809.

Distribution: Scarce locally, but possibly overlooked for *A. flava*. The known specimens are mostly within parks and along urban roadsides. Quite unusual nationally.

Further Notes: A large shrub or small tree with particularly small and narrow leaflets, which are smaller and duller than *A. flava*. The fruit have small prickle-like projection unlike similar buckeyes and the creamy white flowers, which are produced in May, have anthers that project beyond the petals (anthers hidden by the yellower petals in *A. flava*). 'October Red' is a form with coppery young foliage in spring, creamy yellow flowers in May, followed by red autumn colours. The Northumberland Road specimens start to colour up by early September, giving a fine show of deep reds and mauves for several weeks.

Key locations for seeing some: Leamington Spa: Northumberland Road (33 specimens amongst the avenues of *A. hippocastanea* and *A. x carnea*) and Jephson Park (a couple near the toilets/underpass, probably 'October Red', the largest 1.20m GBH/2007, with Yellow Buckeye at the NE corner of the park to compare them against); Brueton Park, Solihull (a medium-sized one towards NW); Rock Mill Arboretum, Milverton (recent planting of 'October Red' by D. Howells); Warwick: St Nicholas Park and possibly one in Priory Park.

Largest local specimen: the largest Northumberland Road specimen (1.21m GBH/2006).

***Aesculus hippocastanum* – Common Horse Chestnut**

Source: A surprisingly scarce species in the wild, native to just a few mountains on the Greece-Albanian border. Introduced to Britain in the early 1600s.

Distribution: A very familiar tree throughout our area, in parks, gardens, cemeteries, roadsides and sometimes as veterans in historic parks.

Further Notes: The largest *Aesculus*, capable of forming a very fine tall tree. Like the Sycamore, you could be forgiven for thinking it is a native of Britain such is its familiarity. It is the main source of 'conkers' which are the nuts encased in a spiky fruit. It can produce a fine autumn colour with reds, oranges and yellows (some specimens more than others), and in May its spikes of white flowers create a magnificent show. The buds are very sticky, a feature only shared with *A. indica* and *A. turbinata*. The bark of mature trunks breaks up into rather untidy large plates that curve out at their edges. Form 'Baumanii' is a more fastigate form that does not produce conkers. A strange weeping variety is also represented by some very old trees locally (e.g. at Newnham Paddox), though these tend to disintegrate quite catastrophically as they grow old. Horse Chestnut also occasionally layers to produce satellite trunks around the main one (e.g. an old tree at Brownsover Hall and another at Chadshunt Hall). Local trees, especially young ones, are currently falling victim to 'Bleeding Canker' which is caused by a *Pseudomonas* bacteria. Older trees seem to be more resistant. Since about 2000, it has also been heavily infested by the Horse Chestnut Leaf-miner Moth *Cameraria ohridella*, the larvae of which create extensive blotching of leaves and can result in early leaf fall. Though it looks dramatic, it is less much less harmful than canker.

Key locations for seeing some: Leamington Spa: Jephson Gardens (largest 4.79m GBH/2006), Victoria Park (some fine ones) and Northumberland Road; Warwick: Priory Park and Pageant Garden; Stratford: W bank of Avon and many other parks; Coombe Countryside Park: Coventry: many along Leamington Road, Stivichall and in War Memorial Park; Charlecote Park (some fine ones, largest measured 4.80m/2006); Coughton Court (some fine ones in deer park), Compton Verney (some fine ones, largest measured 4.34m/2006); Ettington Park (a 5.65m/2006 specimen at S end of grounds); Bitham hall (a 4.70mGBH/2006 specimen on wooded slope behind Hall); Ansty Hall Hotel (a 5.64m/2007 specimen in front of Hall). Weeping: Newnham Paddox (several very old ones, the largest was 4.89m @ 1m/2007 but died that year); Stoneleigh Deer Park (one by river S of Deer Keeper's Lodge, most of side limbs lost). Possible Baumanii: Dorchester Road, Leamington Spa (needs checking).



The striking inflorescences of Aesculus species: Common Horse Chestnut (top left), Red Horse Chestnut (top right), Yellow Buckeye (bottom left) and Bottlebrush Buckeye (bottom right).

Largest local specimen: Single-trunked: Two contenders: Farnborough Park, close to the resident's entrance gate (6.09m GBH/2006 trunk long and very deeply fluted); Honington Hall, W of R. Stour near wier (6.67m @ 1m waist but trunk dividing @ 2m into several large stems). Layered: Brownsver

Hall Hotel near Rugby (main trunk 4.34m GBH/2006, augmented by about 6 satellite trunks).

***Aesculus indica* – Indian Horse Chestnut**

Source: NW Himalayas. Introduced to Britain in 1851.

Distribution: A few local parks and gardens.

Further Notes: If you find a horse chestnut tree in full bloom in the latter half of June (about a month later than *A. hippocastanum*), it will be this species. The leaflets are narrower than *A. hippocastanum* with a pale, smooth appearance and the flowers have four rather than five petals. The almost blackish conkers are encased in a smooth fruit lacking any spikes or bumps. The bark is smooth, though some older trees are grafted.

Key locations for seeing some: Jephson Gardens, Leamington Spa (a nationally significant specimen with full crown, 2.34m GBH/2007); College Garden, Warwick; Sherbourne Fishing Pool, near Sherbourne Church (about 20-30 years old and forming a medium-sized tree); The Rec, Stratford (a young one); Reed Business College, Little Compton (grafted onto *A. hippocastanum*); Coughton Court (NE corner of formal gardens); Miners' Welfare Park, Bedworth (teste: a park ranger).

Largest local specimen: Reed Business College (2.81m GBH/2006 below the graft line, which features a thicker trunk). This approaches the national record, though it is a much less impressive specimen than the Jephson tree.

***Aesculus parviflora* - Bottlebrush Buckeye**

Source: SE USA, with wild populations confined to just Florida, Alabama and South Carolina. Date of introduction to Britain unknown.

Distribution: Rare locally.

Further Notes: A shrub rather than a tree, with beautifully delicate flower spikes bearing long anthers that attract hummingbirds in its native area. This is the last *Aesculus* to flower (July and August).

Key locations for seeing some: Woodcote House, Leek Wootton (a multi-stemmed specimen possibly of Victorian origin near the lake); Coventry, in a shrubbery at the start of the footbridge crossing Ringway St. Patricks (near Manor Road, north Cheylesmore); 'The Yews' Moreton Paddox (a young one); Sherbourne Fishing Pool, near Sherbourne Church (small one); Arbury Hall (in garden S of hall); Warwick Castle (a possible specimen close to the two Swamp Cypresses, but flowers not seen).

Largest local specimen: Woodcote House, Leek Wootton (multistemmed so hard to measure meaningfully).

***Aesculus pavia* – Red Buckeye**

Source: SE USA. Introduced to Britain in 1711.

Distribution: Rare locally.

Further Notes: A large shrub or small tree with rather small leaflets and bright pink-red flowers. It is one of the parents of the Red Horse Chestnut *A. x carnea*, and like it has red flowers, but with narrower, flatter duller and paler leaflets that produce a rather different appearance. It also flowers rather later (early to mid June).

Key locations for seeing some: Barton House, Barton on the Heath (a young one). Old Warwick Road was cited in the 'Trees of Royal Leamington

Spa' (1973) but only a few stunted *A. x carnea* specimens could be located there in 2006.

***Aesculus turbinata* – Japanese Horse Chestnut (unconfirmed as still present)**

Source: Japan. Introduced to Britain in about 1888 by the Warwickshire plant hunter Charles Maries.

Distribution: Rare locally.

Further Notes: Rather similar to *A. hippocastanum* (often proving to be that species), but typically with much larger leaflets up to 40cm long and much smaller fruit (which lack any spines) and conkers.

Key locations for seeing some: Wootton Court Spinney, Leek Wootton (a specimen of 1.29m was recorded here in 1992 by John Bulmer, but could not be located in 2006 and 2007, despite several searches). Alleged trees at Hampton Lucy's Charles Maries Trail and Crewe Lane Arboretum, Kenilworth both proved to be *A. hippocastanum*.

***Ailanthus altissima* - Tree of Heaven**

Source: N China. Introduced to Britain in 1751.

Distribution: Occasional in local parks, churchyards, larger gardens and occasionally on roadsides.

Further Notes: Called the Tree of Heaven because it was often the fastest growing tree in classical Chinese gardens (where it has a history of cultivation stretching back many centuries). It is one of many trees with compound, ash-like leaves, but can easily be distinguished by the lobes at the base of each leaflet. The young fruit, which resemble ash keys, provide an attractive splash of orange to the foliage in late summer. It has been reported self-seeding in parts of Leamington (e.g. Victoria Park) and is quite a serious invasive weed in warmer parts of Europe and America.

Key locations for seeing some: Leamington Spa: Jephson Park and Victoria Park (many mature ones at the latter site, usually alternated with *Robinia*); Market Place, Warwick (corner of the square next to Shire Hall); Priory Park, Warwick (several specimens); Caldecott Park, Rugby (near main entrance beside the big pine, see below); Brownsover Hall Hotel, Rugby (a fine one 2.18m GBH/2006); Ansty Church.

Largest local specimen: Caldecott Park, Rugby (2.91m GBH/2006).

***Alangium platanifolium* – Alangium**

Source: Widespread in the Far East. Introduced in 1879 by the local plant hunter Charles Maries.

Distribution: Rare locally.

Further Notes: A very obscure shrub or small tree with five-lobed, plane or maple-like leaves and white, fuschia-like flowers bearing bright yellow stamens.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).



A fine Tree of Heaven in Market Square, Warwick (left). The pinnate foliage has leaflets with characteristic small lobes at their bases, and ash-like fruit (right).

***Albizia julibrissin* – Pink Siris (Silk Tree)**

Source: Probably of Chinese origin but long cultivated in W Asia. Introduced to Britain in 1745.

Distribution: Rare locally (requiring very mild or sheltered areas to grow well).

Further Notes: A small, spreading and graceful tree of the pea family with feathery compound foliage which folds up when touched like certain other related trees and always does so overnight. It produces its characteristic pink flower tufts from late summer.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells); Keresley House, Coventry (a young one).

***Alnus* – Alders**

Alders are medium-sized deciduous trees related to birches that have characteristic female cones that become woody in their second year. These can be found alongside the green first year cones and (in winter) the long male catkins. The precise leaf shape and colour plus the characters of the cones, catkins and bark can help to distinguish the various species and varieties. All alders have root nodules containing bacteria that can help to fix nitrogen, which allows them to colonise poor, waterlogged soils. About thirty species occur worldwide, mostly in cooler parts of the northern hemisphere, but only Common Alder *A. glutinosa* is native to Britain. David Howells has developed an important collection of alders at Rock Mill Arboretum, Milverton (26 species in 2005).



Common Alder foliage (left) showing first year female cones; in early spring the old wooden cones hang amongst the attractive male catkins (right).

Alnus acuminata* – old name for *A. jorullensis

***Alnus x aschersioniana* – a hybrid alder**

Source: Possibly of eastern European origin.

Distribution: Rare locally.

Further Notes: A very poorly known tree.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus barbata* – an alder**

Source: Poorly drained forests of the Caucasus. Cultivated since 1870.

Distribution: Rare locally.

Further Notes: An exceptionally fast-growing and densely-leaved alder resembling a large-leaved *A. glutinosa*.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus cordata* - Italian Alder**

Source: S Italy, Corsica and Albania. Introduced to Britain in 1820.

Distribution: Quite frequent in local parks, tree screens and occasionally along roadsides and in churchyards.

Further Notes: This fast-growing, neat-looking (if rather nondescript) tree has been quite popular in municipal planting schemes in recent decades and copes with much poorer, drier soils than other alders. The prolific and persistent catkins (both new and old) quickly alert you to the fact you are looking at an alder, but the leaves are rather different to most other alders you

are likely to meet locally (except the rare *A. subcordata*) and resemble those of pear *Pyrus communis*. The bark is smooth in younger trees but becomes rough and flaky in older ones. As an example of how fast this tree grows, a 25 year old specimen at Wellesbourne Hall had a trunk of 1.68m in with craggy bark in 2007, making it appear twice as old.

Key locations for seeing some: Priory Park, Warwick (several); Kenilworth: Abbey Fields, (including a particularly tall one near the swimming pool, 1.58m GBH/2006, and another at top of Abbey Hill) and Rounds Hill (several roadside trees); Leamington Spa (York Walk, beside R. Leam); Moreton Hall; Stratford riverside (just south of Theatre); Allesley Park, Coventry (many); Coughton Court (several in formal gardens, largest one 1.61m GBH/2006); Farnbrough Park (several beside lake N of main entrance with several *A. subcordata* to compare against, largest one 1.86m GBH/2006); Corporation Street, Coventry (several); Fillongley Church (beside Church Lane, a particularly old one, see below); Coombe Abbey (a 1.73m GBH/2007 specimen by Smite Bridge).

Largest local specimen: Fillongley Church (2.18m GBH/2006).



Italian Alder (left) and Grey Alder (right) are both popular trees in recent municipal planting schemes.

***Alnus faurei* – an alder**

Source: N & Central Japan. Introduced to Britain in 1994.

Distribution: Rare locally.

Further Notes: A densely branched shrub or small tree with hairless young shoots. The leaves are wedge-shaped.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus firma* – an alder**

Source: Japan. Introduced to Britain in 1894.

Distribution: Rare locally.

Further Notes: A densely branched large shrub or small tree with strongly toothed and veined ovate leaves. Older trees develop attractive flaking bark. Male catkins appear with young leaves in spring, unlike most other alders.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus glutinosa* – Common Alder**

Source: A widespread native tree.

Distribution: Very widespread in our area, particularly as a wild tree along stream and river banks, in wet woodland and around the margins of lakes. Occasionally planted in more formal settings.

Further Notes: Our only native alder. In summer, the broad shiny, circular leaves allow easy separation from most other alders. Mature trees tend to have a rather conical shape and the female catkins and young male catkins give the bare twigs a characteristic purplish tinge in late winter and spring. The hazel-like male catkins are conspicuous in March. Root nodules allow it to obtain nitrogen from the poorest and most waterlogged soils and it can be the dominant tree of a very wet wood. Some particularly striking ornamental forms with incised leaves ('Imperialis' and 'Laciniata') can be found locally; also 'Aurea' which has pale yellow leaves. This species is currently suffering attack from a *Phytophthora* fungus (alder die-back disease), which is water-borne and attacks the tree via the roots resulting in symptoms akin to Dutch elm disease. The disease appears to be well established locally, though fortunately it only seems to affect a relatively small proportion of trees.

Key locations for seeing some: Wild form: Stonebridge Meadows, Coventry (including a block of coppiced trees); Kenilworth: Abbey Fields and Kenilworth Castle (along the Finham Brook); Coughton Court (beside River Arrow and car park); Jephson Gardens, Leamington Spa (along river bank); Brueton Park, Solihull (beside river and in wet woodland); Elmdon Park (beside stream and in wet woodland); St. Nicholas Park and Priory Park, Warwick; Riversley Park, Nuneaton (alongside the Anker); Rock Mill Arboretum, Milverton (several varieties). Imperialis & Laciniata: Jephson Gardens (a nationally important Imperialis by the river, 1.67m @ 1.20m, just above graft line); Brueton Park (young Imperialis & Laciniata); Caldecott Park, Rugby (some young Laciniata planted near the nursery); Warwick castle (a fine Laciniata at the far W end); Sherbourne Fishing Pool, near Barford (a medium-sized 'Imperialis'). Aurea: Jephson Gardens (1.80m GBH/2007, the largest Aurea in Britain); Sherbourne Fishing Pool, near Barford (a medium-sized one close to church gate).

Largest local specimen: Multistemmed: Large multistemmed specimens (formerly coppiced?) occur at locations like Whitnash Brook LNR (near Leamington), Coughton Court (beside the R. Arrow), Honington Hall (beside the R. Stour) and at Woodcote House, Leek Wootton, but these are often difficult to measure properly and may sometimes represent several fused trees. Single-stemmed: The largest found to date are a series of trees along the east bank of the River Stour at Honington (between the road bridge and Honington Hall). One squat 'semi-pollard' with a much reduced crown has a

trunk of 4.80 @ 1m/2009 but this is much affected by its growth form. A nearby maiden which blew down in 2009 had a solid lower trunk of 4.25m @ 1m. The isolated and inaccessible nature of many old alder trees means that there is plenty of potential for finding further veterans.



Common Alder can form pure stands along many of our watercourses (left). 'Imperialis' is a form of this species with exceptionally dissected leaves (right).

***Alnus hirsuta* – Downy Alder**

Source: NE China & Japan. Introduced to Britain in 1879 by the local plant hunter Charles Maries.

Distribution: Rare locally.

Further Notes: A medium-sized tree resembling *A. incana* but with leaves generally larger and more deeply lobed.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus incana* - Grey Alder**

Source: Europe & the Caucasus. Introduced to Britain in 1780.

Distribution: Planted quite widely in local parks and screens.

Further Notes: Like the Italian Alder, this is a fast growing, neat though rather nondescript tree, with leaves that resemble hornbeam, so look out for the characteristic 'alder' fruits. The undersides of the leaves are particularly grey below – hence the name. The bark of the trunk remains smooth for many years. Several varieties exist. 'Laciniata' has deeply lobed leaves like the Laciniata of Common Alder, but has downy shoots; 'Pendula' has a weeping habit.

Key locations for seeing some: Priory Park, Warwick; Coombe Abbey; Abbey Fields, Kenilworth; Jephson Gardens, Leamington Spa (near the boating pool); Rock Mill Arboretum, Milverton (including all three forms cited

above); Brueton Park, Solihull (an 'Aurea' near the pinetum zone). Some specimens beside the car park at The Rec, Stratford may be the very similar Red Alder *A. rubra* (a North American species), but need further examination.
Largest local specimen: Abbey Fields, Kenilworth (1.13m GBH/2007).

***Alnus japonica* – Japanese Alder**

Source: NE Asia. Introduced to Britain before 1880.

Distribution: Rare locally.

Further Notes: A medium-sized to large alder with laurel-like foliage and producing short but attractive male catkins in January.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus jorullensis* – Andean Alder**

Source: Mountains of Mexico to N Argentina, the southernmost of all alders. Only recently introduced to Britain.

Distribution: Rare locally.

Further Notes: Able to grow to over 30 metres in America, but sensitive to frost. The leaves are large and ovate. It is a commercial forestry tree in America and places like New Zealand.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus maximowiczii* – an alder**

Source: Japan & NE Asia. Introduced to Britain in 1914.

Distribution: Rare locally.

Further Notes: A large shrub with thick shoots, broad and finely toothed leaves and stout yellow catkins in late spring.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus nitida* – an alder**

Source: Indian Himalayas. Not known when introduced to Britain.

Distribution: Rare locally.

Further Notes: A large shrub or modest tree with yellow male catkins that mature in the autumn (unlike most alders). The foliage is smooth, shiny and purple-tinged when young.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus oblongifolia* – Arizona Alder**

Source: A scarce tree of streamsides in Arizona, New Mexico and Mexico, often in canyons. Probably a recent introduction to Britain.

Distribution: Rare locally.

Further Notes: A spreading tree to 30 metres, often with several trunks. The leaves are leathery and pointed. The flowers start to develop the year before actual flowering.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus pendula* – an alder**

Source: Northern Japan. Probably a recent introduction to Britain.

Distribution: Rare locally.

Further Notes: A slow-growing, shrubby alder with distinctive leaves characterised by a large number of veins. It is less pendulous than its name might suggest. Not to be confused with var 'Pendula' of *A. incana*.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus rubra* – Red Alder**

Source: W North America from S Alaska to California. Introduced to Britain before 1880.

Distribution: Rare locally.

Further Notes: Similar to *A. incana* but with less hairy shoots, and larger and more deeply lobed leaves which have minute, but sharply rolled down edges. Equally fast growing – it has produced the largest alder specimens.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells, var. 'Pinnatisecta'); Warwick University (zone 3, teste D. Howell); possibly some at the Rec, Stratford (edges of car park); Oversley Wood, near Alcester (according to the Forestry Commission tree list, but not found recently).

***Alnus rugosa* – Speckled Alder**

Source: E North America. Date of introduction to Britain unknown.

Distribution: Rare locally.

Further Notes: A shrub or small tree with white speckles (lenticels) on the twigs (like Silver Birch).

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus sieboldiana* – an alder**

Source: Japan. Date of introduction to Britain unknown.

Distribution: Rare locally.

Further Notes: A small to medium-sized tree with a spreading crown resembling *A. firma*. The oval leaves have very bold venation. The stubby male catkins give a good show of yellow in spring. It is planted widely as a nitrogen-fixing plant on denuded sites in Japan.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus x spaethii* – a hybrid alder**

Source: A cross between *A. subcordata* from W Asia and *A. japonica* from the Far East. Developed in Berlin in 1908.

Distribution: Rare locally.

Further Notes: A fast-growing tree with large, boat-shaped leaves that are purple when young.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus subcordata* – Caucasian Alder**

Source: The Caucasus & N Iran. Introduced to Britain in 1838.

Distribution: Rare locally and nationally.

Further Notes: A fast-growing tree resembling *A. cordata* but with broader, more oblong leaves, downy shoots and craggier bark.

Key locations for seeing some: Farnborough Park (three quite large specimens close to the lake N of the main visitor entrance); Rock Mill Arboretum, Milverton (recent planting by D. Howells).

Largest local specimen: the largest Farnborough one (2.50m GBH/2006).

***Alnus tenuifolia* – Mountain (Thinleaf) Alder**

Source: W North America from Alaska to California & New Mexico (the most frequent alder over much of this range). Probably a recent introduction to Britain.

Distribution: Rare locally.

Further Notes: Resembling the shrubby *A. rugosa*, and hybridising with it where the two species meet.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Alnus viridis* – Green Alder**

Source: The typical form comes from the Mountains of central and SE Europe (the common alder of the Alps) and was introduced to Britain in 1820. There is also a race in N America and S Greenland (subspecies *crispa*)

Distribution: Rare locally.

Further Notes: A medium-sized to large shrub with a growth form rather resembling Common Hazel *Corylas avellana*. Race *crispa* is larger with narrower and more finely toothed leaves.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells of both forms).

Amelanchiers

25 species of northern hemisphere shrubs and bushy trees related to thorns and fruit trees of the rose family. They produce attractive white blossom in spring which gives rise to small red or black berries. The show of autumn reds and oranges can be stunning. Identification of the species can be very difficult, partly because of confused nomenclature and several varieties are cultivated.

Amelanchier alnifolia

Source: Western N America. Introduced to Britain in 1918.

Distribution: Local status unclear.

Further Notes: A medium-sized shrub with rounded leaves and black autumn berries.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Amelanchier lamarckii* - Snowy Mespil (Juneberry)**

Source: Probably a hybrid involving the NE American Shadblow *A. laevis* and another American species. Introduced to Britain in 1870.



Snowy Mespil in Leamington Spa providing a fine show of spring blossom (left). This species is equally conspicuous in autumn through its bright orange and red fall foliage (right).

Distribution: Frequent in parks, gardens, shrubberies and urban roads, though it is possible that other similar *Amelanchier* species may be present.

Further Notes: A medium-sized to large shrub and occasionally a fully trunked small tree, which is most conspicuous in spring (when in blossom) and in autumn (when it produces a brilliant show of pastel pink, red and orange foliage). The petals of the delicate white flowers are rather longer and narrower than cherries, producing a star-like appearance. They emerge alongside the new foliage which is initially purplish. The red and black berries are quickly consumed by birds. Several old specimens (see below) appear to be grafted. One *Amelanchier* at Jephson Gardens has flowers amongst green leaves and is clearly different to a typical *A. lamarckii* nearby.

Key locations for seeing some: Leamington: Russell Terrace (numerous trunked street specimens), Christchurch Garden (alongside the Kenilworth Road), Jephson Gardens and Leamington Cemetery; Stratford: the Rec and Riverside Gardens; Warwick University (many, variously named *A. canadensis* and *A. germanica*); Warwick: Warwick Castle and Warwick Cemetery (area B); Coventry: Allesley Park and War Memorial Park; Kenilworth (in garden just E of Castle Hill-Malthouse Lane junction). Grafted: Stratford Cemetery (S boundary); St Andrew's Church, Rugby (SW corner of the church within a public alleyway).

Largest local specimen: possibly one in Stratford Riverside Gardens just N of the Brass Rubbing Centre (1.70m around base/2007, adjusted for ivy, soon becoming multistemmed).

***Aralia elata* – Japanese Angelica Tree**

Source: The Far East.

Distribution: Rare locally.

Further Notes: A highly distinctive shrub with very large (up to 1 metre long) 'doubly compound' leaves i.e. one leaf stalk with side branches that give rise to lots of small leaflets. The leaves are very similar to Kentucky Coffee Tree *Gymnocladus dioica*, though *A. elata* has small spines on its stems like the related *Kalopanax* and has large heads of small white flowers in late summer. In winter, the gaunt shape rather resembles a Sumac. Most specimens are multi-stemmed and suckering but a trunked one occurs at Arbury Hall.

Key locations for seeing some: Warwick Castle (several, some near entrance, another in the peacock garden); Jephson Gardens (two clumps along the north edge of the east section, near the large Tulip Tree); Honington Hall garden (a large, spreading one with several stems propped up by supports); Compton Wynyates (another spreading one within a dense shrubbery); Keresley House, Coventry (a young one); Arbury Hall (in private arboretum).

Largest local specimen: Single-stemmed: Arbury Hall (0.53m GBH/2009). Multi-stemmed: Honington Hall garden (three main stems of 0.34m, 0.30m and 0.30m/2007).

***Aralia spinosa* – Devil's Walking Stick (American Angelica Tree)**

Keresley House, Coventry - on owner's 2007 plant list, but not seen by the author. Almost identical to *A. elata*.



Japanese Angelica Tree (left) showing the doubly-compound leaves and sprays of small berries. *Strawberry Tree* foliage (right) featuring flowers and fruit.

***Arbutus* – Strawberry trees**

Evergreen shrubs of the heather family found in N. America, W Europe and the Mediterranean. Flowers are often produced in autumn or winter and give rise to red, strawberry-like fruit in some. The bark is often strikingly coloured with reds, oranges and cream. Barton House, Barton on the Heath holds the

NCCPG National Collection of *Arbutus* with five species plus further subspecies.

***Arbutus x andrachnoides* – Hybrid Strawberry Tree**

Source: A hybrid between Strawberry tree *A. unedo* and Cyprus Strawberry tree *A. andrachne*.

Distribution: Rare locally.

Further Notes: Very similar to *A. unedo* but with much brighter red bark that peels and slightly larger leaves with finer teeth and greyer undersides.

Key locations for seeing some: Warwick Castle (a fine one); Barton House, Barton on the Heath.

***Arbutus x marina* – a hybrid strawberry tree**

Source: A hybrid of uncertain parentage.

Distribution: Rare locally and nationally.

Further Notes: A very poorly known *Arbutus*.

Key locations for seeing some: Barton House, Barton on the Heath.

***Arbutus menziesii* – Madrona (Madrone)**

Source: W North America. Introduced to Britain in 1827.

Distribution: Rare locally.

Further Notes: A rather striking *Arbutus* with particularly large, leathery magnolia-like leaves that are barely toothed. The bark is a patchwork of smooth yellow, orange, brown or even blackish areas plus darker peeling patches – very much like old paintwork that has been blow-torched. The flowers appear in late spring on erect stalks and the old heads are long dead and black by the time *A. unedo* is flowering in autumn. Madrona typically forms a large spreading shrub.

Key locations for seeing some: Ashorne Conference Centre (a fine one adjacent to Malvern House); Warwick Castle (one in the cedar grove); Barton House, Barton on the Heath; Keresley House, Coventry (on owner's 2007 plant list, but not seen by the author).

***Arbutus texana* – Texas Madrone**

Source: SW USA & Mexico.

Distribution: Rare locally and nationally.

Further Notes: An attractive evergreen shrub resembling *A. menziesii* with striking white, orange and red peeling bark. Sometimes regarded as a subspecies of *A. xalapensis*.

Key locations for seeing some: Barton House, Barton on the Heath.

***Arbutus unedo* - Strawberry Tree (Killarney Strawberry)**

Source: Native to Ireland (Kerry, Cork and Co. Sligo) and the Mediterranean.

Distribution: Occasional in local parks and gardens, including small urban ones.

Further Notes: A shrub or small tree with bunches of distinctive flask-shaped white flowers produced from late summer to early winter, followed by yellow-then-red strawberry-like fruits in late autumn. But those delicious-looking fruit are not especially pleasant to eat. '*Unedo*' means 'I eat (just) once' (!).

Key locations for seeing some: Caldecott Park, Rugby (one beside the northernmost Park Road entrance); Rock Mill Arboretum, Milverton;

Stoneleigh Abbey (a couple in the terraced garden); Charlecote Park (in the gardens); Jephson Gardens, Leamington Spa (along N edge of E side close to the large Tulip Tree); Stratford (a fine one overhanging Waterside almost opposite the RSC Theatre); 2 Thickhorn Close, Kenilworth (a fine one beside road); Compton Verney (young ones in public car park); Warwickshire College, Leamington (several young ones at SW corner of the college); Barton House, Barton on the Heath.

***Aronia melanocarpa* – Black Chokeberry**

Source: Eastern N America. Introduced to Britain in about 1700.

Distribution: Rare locally.

Further Notes: A medium-sized shrub with small white and pink flowers (not unlike some *Crataegus* thorns) followed by showy black fruits. In America, the fruit is often used for juice and jelly. It produces bright purple-red fall foliage.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Azara microphylla* – Small-leaved Azara**

Source: S Central Andes. Introduced to Britain in about 1861.

Distribution: Rare locally.

Further Notes: A medium-sized evergreen shrub or small tree with small (2cm), dark-green shining leaves (not unlike Antarctic Beech *Nothofagus antarctica* or Box *Buxus sempervirens*). The leaves are arranged alternately on the shoots, and a characteristic 6mm leaf-like stipule is located opposite each leaf stalk. Small clusters of chocolate-scented flowers are produced in late winter.

Key locations for seeing some: Warwick Castle (a fine specimen beside main path leading from toll house to the main castle keep and another beside the NW perimeter wall as you walk towards Fox's Study).

***Betula* – Birches**

Mostly medium-sized, deciduous trees, typically with very white bark on the trunk which peels strongly in many species. Birches can be very challenging to identify – check the precise shape of the leaves, the hairiness of the leaf stalk and shoot, the overall shape of the tree, the abundance and precise appearance and structure of the catkins and the character of the bark. About sixty species are found worldwide, concentrated into cool temperate or mountainous regions of the northern hemisphere. Three are native to Britain, *B. pendula*, *B. pubescens* and, in Scotland only, the diminutive, subarctic *B. nana*. The key in Mitchell (1978) is best consulted for critical determination. David Howells has developed a fine collection of birches at Rock Mill Arboretum, Milverton (19 species in 2005) and some unusual ones are present at Brueton Park, Solihull, both within a discrete 'birch zone' and elsewhere within the park.

***Betula albo-sinensis* – Chinese Red-barked Birch (Red Birch)**

Source: NW China. Introduced to Britain in 1901.

Distribution: Rare locally.

Further Notes: A fast growing, large birch closely related to *B. utilis* and not always easily distinguished, though typically with hairless shoots and

narrower leaves (particularly in var. 'Septentrionalis'). The bark is typically cream-coloured with a pink bloom, though in form 'Red Bark' it is dark red.
Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells - several varieties including those cited above).

***Betula alleghaniensis* – Yellow Birch**

Source: N. America from Manitoba to Georgia. Introduced to Britain in 1767.

Distribution: Rare locally.

Further Notes: A medium-sized tree with cherry-like leaves and shiny yellow bark that peels off as a profusion of narrow, horizontal ribbons, which adds further to its cherry-like appearance. It produces a very fine yellow autumn colour and has long, yellow male catkins in spring.

Key locations for seeing some: Rock Mill Arboretum, Milverton and Talton Hall near Newbold on Avon (young ones at each location).



Variety 'Jaquemontii' of the Himalayan Birch (left) produces one of the most strikingly white-barked trunks of any tree. River Birch by comparison (right) has brownish, peeling bark.

***Betula x aurata* - the natural hybrid of *B. pendula* and *B. pubescens* (see under *B. pubescens*)**

***Betula austro-sinensis* – a birch**

Source: China. Introduced to Britain in 1985.

Distribution: Rare locally.

Further Notes: A very rare birch with diamond-shaped, dark green leaves that emerge a copper colour. The male catkins, which are produced in spring, can be an impressive 10 inches long.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Betula chichibuensis* – a birch**

Source: Japan, where critically rare. Recently introduced to Britain.

Distribution: Rare locally.

Further Notes: One of the rarest birches in the world, and close to extinction until recently. The rather distinctive leaves have densely crowded parallel veins marked by deep corrugations. These give a fine show of autumn yellow. It tends to form a multi-stemmed shrub with an arching habit, and the new shoots are glossy red-brown.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Betula costata* – a birch**

Source: NE Asia. Date of introduced to Britain unclear.

Distribution: Rare locally.

Further Notes: An Asian relative of the N American River Birch *B. nigra*, and sharing with this species rather rugged and flaky bark, though it is typically much paler, which leads to frequent confusion with *B. ermani*, even by suppliers. The leaves are relatively slender and triangular with tufts of hairs in the vein axils on the undersides.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Betula ermanii* – Erman's or Russian Rock Birch**

Source: Mountain slopes of NE Asia with British specimens probably of Japanese source. Introduced to Britain in 1890.

Distribution: Seemingly rare locally, but easily overlooked for Himalayan Birch.

Further Notes: An attractive, large, long-lived birch with a clean barked trunk and main limbs - usually white in young trees but becoming pink or pale orange in older ones. The bark has rather broader horizontal stripes (lenticels) than the similar *B. utilis* and the twigs have conspicuous white spots (like *B. pendula*) and are never densely hairy like *B. utilis*.

Key locations for seeing some: Brueton Park, Solihull (a couple); Warwick University (several places); Rock Mill Arboretum, Milverton; Crewe Lane Arboretum, Kenilworth (0.82m GBH/2006); Arbury Hall (in private arboretum); Moreton Hall, Moreton Morrell (a young labelled one in front of Hall but with foliage that suggest it is a hybrid with *B. pubescens*).

***Betula globispica* – a birch**

Source: Mountain slopes of Eastern Russia and Central Japan. Date of introduction to Britain unknown.

Distribution: Rare locally.

Further Notes: A rare, fast-growing birch with white and pink flaking bark and broad, oval leaves.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Betula lenta* – Cherry Birch**

Photos of a Brueton Park tree taken by the author in the mid-1990s appear to be this one, but it seems to have been lost since.

***Betula maximowicziana* – Monarch Birch**

Source: Japan. Introduced to Britain in about 1890.

Distribution: Rare locally.

Further Notes: A fast-growing, broad-crowned tree with an orange-brown trunk that matures to grey and pinkish and peels in narrow, horizontal strips. The heart-shaped leaves are larger than any other birch (up to 14cm long), and are rather lime-like. They give a fine show of autumn yellow.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells); Arbury Hall (in private arboretum).

***Betula medwediewii* – Transcaucasian Birch**

Source: Caucasus Mountains and North Iran. Introduced to Britain in 1897.

Distribution: Rare locally.

Further Notes: A large shrub or small, globular tree with stout, erect branches. The large, corrugated leaves appear relatively late for a birch and give a good show of autumn yellow.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting of form 'Gold Bark' by D. Howells).

***Betula nigra* – River Birch**

Source: Eastern USA, usually beside rocky streams and around swamps (an ecological equivalent of our Common Alder). Introduced to Britain in 1736.

Distribution: Occasional in local in parks, gardens and roadsides, but increasingly being planted.

Further Notes: The very shaggy bark (which varies from cream in younger trees to blackish in mature ones) combined with jagged leaf margins (a bit like oversized Silver Birch leaves) make for a reasonably easily recognised birch. Like our native *B. pubescens*, it can tolerate waterlogged soils.

Key locations for seeing some: Caldecott Park, Rugby (a young one in the NW corner); Leamington Spa: Jephson Gardens (a young one at the NE corner of the boating pool), Cloister Way and the adjacent Almond Ave (young roadside specimens); Parkridge Centre, Brueton Park, Solihull (one in the birch zone); Rock Mill Arboretum, Milverton (young specimens, including a form with especially showy bark); Crewe Lane Arboretum, Kenilworth (a fine one with dark bark 0.92m GBH/2006); Warwick Castle (a few in Fox's Study); Talton House near Newbold on Stour (a couple of young ones); Ilmington Manor (a couple of young ones); Arbury Hall (in private arboretum).

Largest local specimen: Warwick Castle (0.93m GBH/2007).

***Betula papyrifera* – Paper-bark or Canoe Birch**

Source: Across North America as far south as Pennsylvania. Introduced to Britain in 1750.

Distribution: Scarce locally, but easily overlooked for Himalayan Birch.

Further Notes: A large birch, one of the most conspicuous trees of north American woods and townscapes, usually with a striking white trunk with outer bark that peels off in large papery strips. Native American people used this waterproof bark in the construction of canoes and shelters. The relatively large and thick leaves are duller than the white-trunked forms of Himalayan

Birch *B. utilis* and usually have fewer veins, and the shoots are warty rather than hairy.

Key locations for seeing some: Brueton Park, Solihull (several large ones along N edge, smaller ones in the 'birch zone'); Coombe Abbey (two just across the Smite Brook bridge, largest 1.33m GBH/2006, a smaller one amongst the redwoods in the arboretum); Springfield Environmental Centre garden, Temple Balsall); Rock Mill Arboretum, Milverton; Keresley House, Coventry (a young one); Keresley House, Coventry (var. 'Commutata' according to owner's list).

Largest local specimen: the largest one in Brueton Park (1.53m GBH/2006).

***Betula pendula* – Silver Birch**

Source: A widespread native, also found widely in Europe and NW Asia.

Distribution: Very common locally, both in natural settings such as woodland, scrub and heathland (preferring the more acidic soils of north and west Warwickshire) and as a planted tree in parks, gardens, cemeteries, roadsides etc. Of the cultivars, 'Youngii' is frequent in gardens and parks, 'Tristis' and 'Laciniata' are occasional and 'Purpurea' is rare.

Further Notes: Our most familiar birch and usually easily identifiable by the pendulous foliage and large black patches on the lower part of mature trunks, though some specimens can be confused with *B. pubescens* (with which it can hybridize to form a tree with intermediate character known as *B. x aurata*) or some of the introduced birches. The leaves generally have lobed margins bearing smaller teeth and a drawn out point. The shoots that bear these are hairless with numerous tiny white spots (lenticels). Several forms can be found locally. 'Youngii' or Weeping Birch is a very popular, short tree present in many parks and gardens – a 'weeping willow' of the birch world; Swedish Birch 'Laciniata' (also known as 'Dalecarlica') has 'lacinate' leaves (i.e. the leaf margins are highly incised); 'Tristis' has particularly pendulous foliage but remains tall and narrow unlike Youngii; 'Purpurea' has purple foliage; 'Golden Cloud' has yellowish foliage. Some local specimens have non-pendulous foliage and can superficially resemble *B. pubescens*, notably some trees in Coventry's War Memorial Park and formerly a tree in front of the RSC Theatre in Stratford (lost through recent redevelopment).

Key locations for seeing some: Brueton Park, Solihull has a fine birch collections with all the forms listed above (including one of the largest 'Purpurea' in Britain); Leamington: Jephson Gardens (has type, Swedish and Weeping specimens) and streets like Woodcote Road (where it is the main tree); Warwick: College Garden & St Mary's Churchyard have fine examples of typical specimens, Priory Park has a 'Tristis' near the railway line and a fine Swedish Birch occurs at Friars Street beside Westgate Infant School; Coventry: War Memorial Park (many); Fillongley Church (some fine ones by Church Lane, largest 2.38m GBH/2006); St Mary's Church, Bilton (a couple of large ones, the largest 2.35m @ 0.9m/2007); Halford Church (a Swedish Birch); Keresley House, Coventry (has a 'Purpurea'); Talton Hall near Newbold on Avon (various cultivars including 'Laciniata' and 'Golden Cloud').
Hybrids: Claybrookes Marsh, Coventry and the nearby Piles Coppice seem to have Silver Birch-Downy Birch hybrids on ground that shows a marked gradient of pH and waterlogging.

Largest local specimen: The Warwickshire's Oldest Tree Survey recorded a 3.73m/1999 specimen in Snitterfield Parish (**the size suggest it may be multistemmed**), but the largest confirmed one is in Wiglands Wood near Ashorne Hill (2.43m GBH/2008). Laciniata: Wootton Court Spinney (1.70m @ 1m, below a boss). Very few local Silver Birches have girths exceeding two metres.



A fine specimen of the weeping form 'Youngii' of Silver Birch at Solihull's Brueton Park (left); a trunk of Downy Birch, one of our commonest woodland trees.

***Betula populifolia* – Grey Birch**

Source: E North America.

Distribution: Rare locally.

Further Notes: Resembling *B. pendula* but the leaves with very drawn out tips.

Key locations for seeing some: Rock Mill Arboretum, Milverton (a young specimen planted by D. Howells). A specimen in the birch zone of Brueton Park, Solihull may be this species or (according to Owen Johnson) possibly *B. japonica* or a hybrid.

***Betula pubescens* – Downy or White Birch**

Source: A widespread native, extending from Europe to W Asia.

Distribution: Frequent in local woods but preferring the poorer, wetter soils of the north and west of our area and scarce on the limey soils of the south and east. Less frequent in open habitats than Silver Birch *B. pendula*.

Occasionally found in parks, gardens, cemeteries and churchyards, especially in the north and west.

Further Notes: The best way to distinguish this tree from *B. pendula* is to examine the shoots and leaves. The shoots and leaf stalks, especially of

growth from the lower trunk, are usually distinctly downy (hairless in *B. pendula*, and with distinct tiny white warts on the shoots), though this is not always the case on older canopy foliage. The leaves tend to be smaller and more triangular (the leaf margins toothed but without lobes and the leaf tip less drawn out), and the foliage is never strongly pendulous, But beware the occasional non-pendulous Silver Birch. The trunks of mature trees tend to be distinctly greyish with more noticeable horizontal banding and fewer black patches at the base. But it hybridises naturally with *B. pendula* in various places locally to form a tree with intermediate character known as *B. x aurata*, and even some planted specimens appear to be hybrids (e.g. in Malvern Park, Solihull). It can also cross with some of the Asiatic species listed, especially *B. ermanii*.

Key locations for seeing some: Natural settings: Bunsons Wood, Keresley (numerous ones, largest measured was 1.78m GBH/2007); Bickenhill Plantation within the NEC complex (has pure Downy Birch woodland on very wet peaty soils); Kenilworth: Crackley Wood (frequent alongside *B. pendula*, the largest measured was 2.38m GBH/2007 but blew over shortly after) and Thicket Wood (largest measured was 2.15m GBH/2008); Brandon Wood and Piles Coppice, Binley Woods (numerous in places); also the nearby Claybrookes Marsh, Coventry (pure Downy Birch stands in wetter areas plus *aurata* hybrids); Oakley Wood, near Bishops Tachbrook (abundant, especially in the woodland cemetery); Arley Wood, Old Arley. Formal settings: Caldecott Park, Rugby (several fine, mature specimens deliberately grown as ornamental trees); Attleborough Cemetery, Nuneaton (2.05m GBH/2006); Chilvers Coton Church, Nuneaton (several including a fine one of 2.65m @ 90cm/2008); Quaker's Meeting House, Warwick (fine one in garden, 1.96m GBH/2007); Packington Park (in a field S of the Hall, 1.85m/2006); Jephson Gardens (several in the boating pool area); Miner's Welfare Park, Bedworth (the main birch in the gardens); churchyards at Dordon, Over Whitacre, Curdworth, Corley and Atherstone.

Largest local specimen: The Warwickshire Golf Course, Leek Wootton, within Terrace Hill Wood (3.12m GBH/2007, good trunk). There is also a record of a 3.48m tree in Claverdon parish from the Warwickshire's Oldest Tree Survey.

***Betula szechuanica* – Sichuan Birch**

Source: SW China to Tibet. Introduced to Britain in 1908.

Distribution: Rare locally.

Further Notes: A vigorous, medium-sized tree with glossy, blue-green, long-pointed leaves and dead-white bark which rubs off like chalk or whitewash.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Betula tianschanica* – a birch**

Source: The Tien Shan Mountains of Western China. Date of introduction to Britain unknown.

Distribution: Rare locally.

Further Notes: A rare tree with creamy-pink peeling bark and neat glossy leaves that are serrated on the margins.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Betula utilis* (including *B. jacquemontii*) – Himalayan Birch**

Source: The Himalayas and West China. Introduced to Britain in 1849.

Distribution: A popular tree of local parks, gardens and some roads, though not as common as Silver Birch *B. pendula*.

Further Notes: If you see a birch with a striking white trunk and rather large, thick-looking leaves (never pendulous), it will probably be this species. The wild populations vary greatly in trunk colour (many have dark trunks) and leaf shape. The population at the Kashmir end of its range tends to feature a whiter trunk and fewer leaf veins and is referred to as Jacquemont's Birch, but it intergrades with true Himalayan Birch *B. utilis* so is usually just regarded as a geographical form rather than a different species. Various other birches can also have very white trunks and similar leaves, though *B. utilis* has downy shoots unlike the warty ones of some of those other species. It also has a reddish, grooved leaf stalk unlike *B. pubescens* (which also has downy shoots but never such a strikingly white trunk).

Key locations for seeing some: Caldecott Park, Rugby (many); Jephson Gardens, Leamington Spa (several); St. Nicholas Park, Warwick (several); Brueton Park, Solihull (several, plus similar species like *B. papyrifera*); Rock Mill Arboretum, Milverton (young planting of two varieties).

***Brahea armata* – Mexican Blue Palm**

Source: Endemic to the Baja California peninsula of Mexico.

Distribution: Rare locally and nationally.

Further Notes: Resembles a very pale blue-grey Chusan Palm *Trachycarpus fortunei*. Dwarf Fan Palm *Chamaerops humilis* 'Argentea' is very similar but has viciously spined leaf stalks.

Key locations for seeing some: Barton House, Barton on the Heath (a young one).

***Buxus balaerica* – Balaeric Box**

Source: SW Spain & Sardinia. Introduced to Britain in 1780.

Distribution: Rare locally and nationally.

Further Notes: Compared to *B. sempervirens* has larger, flatter, matt yellow leaves up to 5cm long and showier, scented flowers.

Key locations for seeing some: Jephson Gardens, Leamington Spa (along N edge in E section).

***Buxus sempervirens* - Box**

Source: Possibly a native of a few sites in the North Downs but widely introduced elsewhere in Britain. Also found in Europe, N Africa and W Asia.

Distribution: Frequent in local parks, gardens (especially historic ones), and churchyards, occasional in woods. Often used in hedges and for topiary.

Further Notes: An evergreen shrub with characteristic small leathery leaves. It is slow growing, so even quite old specimens can appear small. The timber is exceedingly hard and durable – so dense that it sinks in water and so strong that it can be used as a mould for molten metal. There is a variegated form with green and yellow leaves which is not uncommon.

Key locations for seeing some: Jephson Gardens, Leamington Spa (several, including the variegated form); Packwood House (surrounding the yew garden); Snitterfield Bushes (a row along the S verge of Bearley Road as it runs through the wood); Baddesley Clinton; Stoneleigh Abbey (green and variegated); Ragley Hall Gardens; Walton Hall (including the variegated form); Warwick Castle; New Place, Stratford (some fine hedging and topiary in the Great Garden); various churchyards including Butlers Marston (green and variegated form), Luddington (variegated) and Combrook.

***Caragana arborescens* – Pea Tree (Siberian Peashrub)**

Source: Manchuria & Siberia.

Distribution: Scarce locally and apparently nationally.

Further Notes: A large shrub or small tree of the pea family, often multistemmed and with foliage resembling that of False Acacia *Robinia pseudocacacia*. However, the yellow, gorse-like flowers, arranged singly or in loose clumps, are very different. The 'bean pods' contain edible seeds that can be used as lentils.

Key locations for seeing some: Jephson Gardens, Leamington Spa (along N edge in E section); Old Milverton Church (a bushy specimen at the back of the churchyard), Keresley House, Coventry (close to front entrance); possibly Dalehouse Lane, Kenilworth (in a front garden, requires confirmation).

***Carpinus betulus* – Common Hornbeam**

Source: A native of SE England, often dominating the more acidic ancient woods of the Home Counties, but widely planted further north, including Warwickshire where it is not considered a native. Widespread in Europe and W Asia.

Distribution: A familiar tree of parks, roadsides, urban green-space, more occasionally in woods, and sometimes used for hedging.

Further Notes: Most familiar in its neat 'Fastigiata' form which grows fairly upright to form a dense crown, which does not take too much space. Mature specimens of the wild form can have very broad crowns. To the untrained eye, the foliage can resemble species like Grey Alder *Alnus incana* or some cherries – but the lantern-like clusters of green, winged fruit are quite unmistakable (though not readily produced by some trees). The bark is smooth and Beech-like, but with rather distinct vertical or spiral fluting. Var. 'Incisa' has deeply cut leaves and can occur in a green or variegated form. 'Pendula' has moderately pendulous foliage. A famous Incisa specimen of 3.39m/1989 with layered branches used to occur at Jephson Gardens close to the location of the new Glass House, but was lost in the early 1990s.

Key locations for seeing some: Formal settings: Leamington Spa: Jephson Gardens (several 'Fastigiata') and Christchurch Gardens (several large ones); Warwick: Priory Park, Warwick (some tall ones near the police station entrance) and Westgate School beside Friars Street(a fine 'Fastigiata'); Coventry: Fletchampstead Highway A45, Coventry (several just east of the Kenilworth Road Junction; Allesley Park and War Memorial Park (many); Stratford Riverside Park (several); Coombe Countryside Park (in various places); Abbey Fields, Kenilworth; Brueton Park, Solihull (several including 'Incisa' and a variegated 'Incisa' that might be the rare 'Quercifolia Aureus'); Ilmington village (several fine ones in and around Ilmington Manor, largest

2.30m @ 80cm/2007); Caldecote Hall (a very fine one 3.39m GBH/2007 with a broad crown); Arrow Church (a tall one 2.13m GBH/2007). **Woods:** All Oaks Wood, near Brinklow (a dominant tree, much coppiced, easily seen from Cathiron Road); Clowes Wood, near Earlswood; Farnborough Park (many in the lakeside wood N of road); Stareton (self-seeded in the woods N of the village, including one fine but degenerating pollard of 3.68m/2007). **Pendulus:** Talton Hall near Newbold on Avon (1.88m GBH/2007). **Hornbeam hedges:** Charlecote Park garden; Caldecott Park, Rugby (beside nursery); Stoneleigh Abbey (around visitor's car park); Middleton Hall (around Hall car park). **Largest local specimen:** Stareton village, roadside beside Abbey Business Park just E of Bee Hive Cottage (5.27m @ 1.2m/2007). Surprisingly few local trees have girths exceeding three metres suggesting that it is either short-lived or has a relatively recent (post-1700) history in our area.



Hornbeam leaves (left) have a characteristic jagged margin resembling some cherries but the fruit 'lanterns' are unmistakable. The bark is smooth and rather like that of Beech (right).

***Carya cordiformis* – Bitternut (need confirmation)**

Source: North America.

Distribution:

Further Notes:

Key locations for seeing some: Knowle ("Landsdowne", Warwick Road, in garden, producing fruit but determiner uncertain – WBRC File)

***Carya illinoensis* – Pecan**

Source: North America from Iowa to N Mexico. Introduced to Britain in about 1760.

Distribution: Only a single confirmed local site known.

Further Notes: The tallest of the *Carya*'s, reaching 52m in the wild. This is the species that produces commercial pecan nuts, but it struggles to grow in

Britain, requiring very warm conditions. It is not easy to distinguish from other *Carya* species, though the leaflets tend to be more aerofoil-shaped (i.e. pointing backwards).

Key locations for seeing some: Wasperton Farm near Barford (two grown from seeds obtained from Perkinston, Mississippi c1990). A much larger tree at Arbury Hall (in gardens east of Hall) appears to be a Pecan, but requires further checking.

***Carya ovata* – Shagbark Hickory**

Source: N. America from Quebec to Mexico. Introduced to Britain 1629.

Distribution: Rare locally.

Further Notes: A medium to large tree closely related to the Pecan *C. illinoensis* and producing similar round, green fruit containing a nut (but only after hot summers). The foliage turns a fine yellow in autumn. Mature trees have spectacular bark with numerous outcurving flakes that are thought to have evolved to prevent squirrels from reaching the fruit.

Key locations for seeing some: young ones at Rock Mill Arboretum, Milverton and Barton House, Barton on the Heath.

***Castanea sativa* - Sweet Chestnut**

Source: S Europe, N Africa & Asia Minor. Probably introduced into Britain by the Romans for its edible nuts.

Distribution: A fairly frequent tree locally, though much scarcer than the Horse Chestnut, being more confined to large parks and gardens.

Further Notes: A long-lived tree (some of those in Stoneleigh Deer Park may exceed 500 years) related to oaks *Quercus* and beeches *Fagus* with distinctive spiky fruits that contain the edible chestnuts. The long white 'catkins' of the pungent male flowers are produced in late summer, long after most other large trees have flowered. The nuts form from the less conspicuous female flowers at the base of some of the catkins. The bark of mature trees is very distinctive – deep, vertical ridges that twist slightly around the trunk. Some Sweet Chestnuts in woods have been coppiced in the past to produce wood for fencing etc. Variegated forms with narrow leaves marked with creamy-white around the margins include 'Variegata', 'Albomarginata' and 'Aspleniifolia'.

Key locations for seeing some: Woodlands: Clowes Wood, Earlswood; Park Wood, Coventry; Thickthorn Wood, Kenilworth; Oakley Wood, Bishop's Tachbrook; Whichford Wood; Wolford Wood. Formal settings: Allesley Park, Coventry; Warwick: Priory Park and Pageants Garden, (some fine mature ones); Brueton Park, Solihull (some mature ones); Christchurch Gardens, Leamington Spa (beside Kenilworth Road); Abbey Fields, Kenilworth (several). Variegated specimens: War Memorial Park, Coventry (a young near the aviary); Keresley House, Coventry (a young one, listed as 'Aspleniifolia Heterophylla' and with very narrow leaves). Veterans: Stoneleigh Deer Park (many veterans in the golf course and Deer Keeper's Lodge, several over 7m GBH/2007 and possibly over 500 yrs old; also a fine circle of veterans towards Cloud Bridge which may date from early 1700s); Charlecote Park (several fine ones about 250-300 yrs old, largest 5.43m/2006); Coombe Countryside Park (including a 5.25m GBH/2006 one in paddock NE of arboretum); Bitham Hill, Avon Dassett (several in field NW of Bitham Hall, the

largest 6.08m @1m/2007); Upton House (a tall one of 5.56m/2007 along entrance drive also a short avenue of veterans in pasture S of gardens, largest 5.96m GBH/2010); Packington Park (several including a veteran of 6.95m/2006 in gardens W of Hall); Elmdon Park (near Church, 6.60m @ 1.10m waist/2007); Allesley Park (an old one alongside drive near the Hall, 5.66m/2007); Barton House, Barton on the Heath (6.37m GBH/2007, thought to have been planted in c1570 – can be viewed from adjacent churchyard); Shuckburgh Park (largest 5.84m GBH/2007); Meriden House, Meriden (several large ones can be seen from footpath running adjacent to garden, largest 7.22m @ 1m/2011).

Largest local specimen: Stoneleigh Deer Park Golf Course just S of track leading to Deer Keeper's Lodge and visible from the Coventry Road (8.50m GBH/2007).



Sweet Chestnut foliage featuring ripening fruit (left), and a trunk with the characteristic twisting striations (right).

***Catalpa* – bean trees**

Medium-sized, broad-crowned trees with large ovate leaves and loose spikes of white or yellow, tubular flowers that often have attractive markings. The flowers give rise to pendulous fruit that look like very long string bean pods, though if you open them up they lack any 'beans' inside as they are unrelated to leguminous trees. Identification of the different species and forms can be challenging. Overall shape, bark texture, precise leaf shape, leaf colour, flower details and date of peak flowering all provide valuable clues. Beware the similar Foxglove Tree *Paulownia tomentosa*, which has upright spikes of purple flowers that give rise to round fruits, and very downy shoots. Its leaves and overall shape are very *Catalpa*-like.



Flowers of Indian Bean (left) and the long seeds that these produce (right).

***Catalpa bignonioides* – Indian Bean (Tree)**

Source: The USA from the coastal plains of the Gulf of Mexico east of Louisiana. Introduced to Britain in 1726.

Distribution: Frequent in local parks and occasionally street-sides, gardens and churchyards.

Further Notes: The 'Indian' of the name refers to Native Americans, not the country India. It forms a large, spreading, big-leaved tree, producing attractive white flowers in July and August, which give rise to long, slender, hanging pods (a useful means of separating it from the rather similar but unrelated Foxglove Tree *Paulownia tomentosa*, which has upright spikes of round fruits). A yellow-leaved form of this tree, the Golden Bean (Tree) 'Aurea', is quite frequent in parks and larger gardens and there are also variegated forms. The leaves are generally broader than those of *C. speciosa* and the flowerheads more open, but it can be difficult to distinguish from the hybrid *C. x erubescens*. The bark can be rough and flaky in some trees, but more neatly ridged (like typical *C. speciosa*) in others.

Key locations for seeing some: Jephson Gardens, Leamington Spa (the normal form plus several fine Aurea's of national significance, the largest 2.27m GBH/2007 near the Glass House); Brueton Park, Solihull (a fine one near the Parkridge Centre); Little Park Street, Coventry (opposite the Police Station); St. Nicholas Church, Warwick (some fine ones); Stratford Riverside Park (several, including 'Aurea'); Miner's Welfare Park, Bedworth; Warwick Castle; Knowle Parish Church (2.44m GBH/2006); Barton House, Barton on the Heath (several young ones including a variegated specimen).

Largest local specimen: Honington Hall garden (2.55m GBH/2006, grounds private).

***Catalpa x erubescens* – Hybrid Bean Tree**

Source: A hybrid of *C. bignonioides* and a Chinese species *C. ovata*. Developed in America in 1874 and introduced to Britain in 1891.

Distribution: Local status unclear.

Further Notes: A strong growing tree with characteristics of both parents. The flowers are smaller than *C. bignonioides*, creamy-white, and purple-spotted (especially in form 'Purpurea'), but not always easy to separate from *C. bignonioides*.

Key locations for seeing some: Jephson Gardens, Leamington Spa (some just N of the Glass House and possibly elsewhere); possibly one at Compton Wynyates (by one of the ponds) and Kereley House, Coventry.

***Catalpa fargesii* – Farges' Catalpa**

Source: W China. Introduced to Britain in 1900.

Distribution: Rare locally.

Further Notes: A midsummer-flowering, medium-sized tree with smaller leaves than *C. bignonioides*. The flowers are lilac-pink with red-brown spots, stained with yellow. Planted in Beijing's Forbidden City.

Key locations for seeing some: young ones in Rock Mill Arboretum, Milverton and Barton House, Barton on the Heath.

***Catalpa ovata* – Yellow Catalpa**

Source: China and possibly Japan. Introduced to Britain in 1849.

Distribution: Rare locally.

Further Notes: Resembling *C. bignonioides* and *C. speciosa* to some extent though the leaves tend to be squarer and the flowers smaller, yellowish-white and in tighter bunches. These produce rather smaller 'beans'. This species has been crossed with *C. bignonioides* to produce the Hybrid Bean Tree *C. x erubescens*, which can be similar but has white flowers and larger, greener leaves.

Key locations for seeing some: Malvern Park, Solihull (a fine one amongst the Tulip Trees near the children's play area, 1.34m GBH/2006).

***Catalpa speciosa* – Western (Northern) Catalpa**

Source: Central USA. Introduced to Britain in 1880.

Distribution: Scarce locally, but possibly overlooked as Indian Bean *C. bignonioides*.

Further Notes: Closely resembling the widespread *C. bignonioides* but becoming a taller tree, with striated bark (like an ash), narrower leaves that are scentless when bruised and flowers that emerge a couple of weeks earlier - resulting in earlier-maturing beans.

Key locations for seeing some: St. Mary's Church, Warwick (a very fine specimen, see below); Leamington Spa: Leamington Cemetery (a fine one 1.74m GBH/2006), Jephson Gardens (possible specimen in NW corner near the Sequoias, **requires confirmation**); Leamington Hastings Church (2.36m GBH/2006, **but identity needs confirming**); Coughton Court (a young one in the formal gardens); Barton House, Barton on the Heath (a young one).

Largest local specimen: St Mary's Church (2.59m GBH/2006) **Check identity**

***Ceanothus arboreus* – Feltleaf Ceanothus (Catalina Mountain Lilac)**

Source: N. America (the Chaparral scrub of California).

Distribution: *C. arboreus* seem to be rare locally, though smaller *Ceanothus* are fairly frequent in gardens.

Further Notes: An evergreen shrub related to our buckthorns, which produces masses of tiny blue flowers from June till August. These give rise to black berries. There are further *Ceanothus* species in cultivation and a plethora of cultivars, though *C. arboreus* is the largest and can attain 20 metres. The flowers are very attractive to bees, hoverflies and butterflies.

Key locations for seeing some: Moreton Hall (in shrubberies south of the Hall); Warwick Castle (in peacock garden); Keresley House, Coventry (on owner's 2007 plant list, but not seen by the author).

***Cercidiphyllum japonicum* – Katsura Tree**

Source: Japan and China. Introduced to Britain in 1865.

Distribution: Occasional in local parks and larger gardens.

Further Notes: A large shrub or small tree with attractive heart-shaped leaves that have several veins radiating out from the base. In this respect it closely resembles the unrelated Judas Tree *Cercis siliquastrum*, but Katsura has the leaves arranged in opposite pairs rather than alternately and it never produces the 'pea pods' of *Cercis*. In autumn it provides a fine show of oranges, pinks and scarlets and produces a smell of caramel.

Key locations for seeing some: Upton House (several large ones in the bog garden); Jephson Gardens, Leamington Spa; St Nicholas Park, Warwick; Allesley Park, Coventry; Ragley Hall Garden; Warwick University (several places); Rock Mill Arboretum, Milverton; Ash Green Church (a fairly young one).

Largest local specimen: Upton House (the largest one in the bog garden, multistemmed from a solid base of 3.51m @10cm/2007).

***Cercis* – Judas Trees and Redbuds**

Woody members of the pea family with rounded, heart or kidney-shaped leaves arranged alternately. Katsura trees *Cercidiphyllum* have remarkably similar leaves, but in opposite pairs and lack the conspicuous pea-type flowers and 'pea pods' produced by *Cercis* species.

***Cercis canadensis* – Eastern Redbud**

Source: Eastern N America. Introduced to Britain in 1730.

Distribution: Very occasional in local gardens.

Further Notes: A medium-sized tree with attractive magenta flowers that sprout from the shoots in spring before the leaves emerge. The leaves are narrower than *C. siliquastrum* and all local specimens found to date are young examples of the red or purple-leaved form 'Forest Pansy'.

Key locations for seeing some: Rock Mill Arboretum, Milverton; Packington Park, beside the small footbridge S of the Hall; 'The Yews', Moreton Paddox; Ilmington Manor; Barton House, Barton on the Heath.

***Cercis chinensis* – Chinese Redbud**

Source: China. Date of introduction to Britain unknown.

Distribution: Rare locally.

Further Notes: The foliage resembles *S. siliquastrum* and it produces a similar show of purple-pink flowers in May.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent young specimen of 'Avondale', an unusual New Zealand selection).



Katsura (left) has foliage similar to *Judas Tree* but its leaves are arranged opposite rather than alternate. *Judas Tree* (right) produces exceptionally bright pink flowers in spring which eventually give rise to pea-like pods.

***Cercis siliquastrum* - Judas Tree**

Source: E Mediterranean. Long-grown in Britain.

Distribution: Occasional in local historic properties and older gardens, most easily spotted when flowering in spring (one of the brightest pink blossoms of any local tree).

Further Notes: A small to medium-sized tree or large shrub with twisted branches and large, kidney-shaped leaves. It produces masses of bright pink, pea-type flowers in spring before the leaves appear, often sprouting directly from the trunk and larger branches. These give rise to abundant pea-like pods by summer. The flowers were once used to sweeten salads before sugar was widely available.

Key locations for seeing some: Wootton Court Spinney, Leek Wootton (one); Hampton Lucy (fine one in a front garden beside road near church); Charlecote Park (one near the Cedar of Lebanon); Upton House (one close to house); Coughton Court (one in front of house); Newbold Revel (in gardens); Packington Park (a large one beside wall immediately N of the Hall complex); Barton House, Barton on the Heath (a fine one that has been trained up the back wall).

Largest local specimen: Packington Park (several stems, largest trunk 2.12m GBH/2006), not far off the the national record (2.25m/2006).

X *Chitalpa tashkentensis* – Chitalpa

Source: A cross-generic hybrid between two N American trees, the Indian Bean *Catalpa. bignonioides* and the Desert Catalpa *Chilopsis linearis*, developed by plant breeders in Uzbekistan in 1964.

Distribution: Only a single local site known.

Further Notes: This hybrid inherits the beautiful flowers of a *Catalpa* (but generally pale pink) and the narrow leaves and drought-resistance of *Chilopsis*. It grows fast to form a medium-sized broad tree and can flower for much of the summer.

Key locations for seeing some: Keresley House, Coventry (a young one).

***Cladrastis kentukea* – Yellow-wood**

Source: SE USA from Indiana to Carolina. Introduced to Britain in 1812.

Distribution: Rare locally.

Further Notes: Typically a small tree, with unusual pinnate leaves in that the individual leaflets are alternate rather than opposite. The name relates to the yellow colour of the freshly cut wood. Being a member of the pea and bean flower it produces bean pods, which are preceded by attractive, drooping bunches of white, *Wisteria*-like flowers. The bark is smooth and grey. The foliage can turn bright yellow in autumn.

Key locations for seeing some: Jephson Gardens, Leamington Spa (a nationally important specimens near the Newbold Crescent gate; Rock Mill Arboretum, Milverton (young planting); Keresley House, Coventry (two, the larger about 50 years old but much smaller than the Jephson specimen); Barton House, Barton on the Heath (a young one).

Largest local specimen: Jephson Gardens (1.14m GBH/2006).

Cladastris lutea* – old name for *C. kentukea

***Cladastris sinensis* – Chinese Yellow-wood**

Source: China. Introduced to Britain in 1901.

Distribution: Rare locally.

Further Notes: A very rare and beautiful tree with fragrant, pink-tinged white flowers in upright spikes and much narrower leaflets than *C. kentukea*.

Key locations for seeing some: young ones at Rock Mill Arboretum, Milverton and Barton House, Barton on the Heath.

***Clerodendron trichotomum* – Tree of Destiny or Harlequin Glorybower**

Source: China and Japan.

Distribution: Occasional, mostly in larger private gardens.

Further Notes: A shrub or small tree most noticeable in autumn due to its delightful fruit which is comprised of a blue berry set within five bright pink, inflated bracts that resemble petals. The flowers have five narrow white petals and long anthers.

Key locations for seeing some: Allesley Park, Coventry (one along path south of Hall complex); Stratford (front garden 50 South Green Drive, planted c1970 teste R. Haggett); specimens in private gardens at Sherbourne Manor and a large garden off Dalehouse Lane, Kenilworth.

Cornus – Dogwoods and Cornels

Forty species of northern hemisphere shrubs and small trees of rather diverse appearance. One species, Common Dogwood *C. sanguinea* is native to Britain. The flowers vary from bunches of small whitish ones e.g. *S. sanguinea* to large showy solitary ones e.g. Pacific Dogwood *C. nuttalli*. The leaves are typically opposite but are alternate in a few species. The stems can be very colourful for the first few years, which make some species very popular in shrubberies where they give winter colour. Much checking of local dogwoods is required.



Two rather different manifestations of the genus *Cornus*, a Wedding-cake Tree at Crewe Lane Arboretum, Kenilworth (left) showing a very fine layered form and variegated foliage, and the striking inflorescence of a Pacific Dogwood at the Emscote Road entrance to St Nicholas Park, Warwick (right).

***Cornus alba* – Tatarian or Red-barked Dogwood**

Source: NE Asia. Introduced to Britain in c1907.

Distribution: Local status unclear.

Further Notes: In winter, the colourful shoots can be very showy and vary from brilliant crimson (e.g. form 'Sibirica') to purple-black ('Kesselringii') and even yellow. Some forms also have variegated leaves. It can give a fine show of red autumn foliage.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting of 'Kesselringii' and 'Sibirica' by D. Howells).

***Cornus alternifolia* – Alternate-leaved Dogwood**

Source: Eastern N America. Introduced to Britain in 1760.

Distribution: Local status unclear.

Further Notes: A slow-growing, but potentially large shrub or small tree with horizontal branches and clumps of creamy blossom in late summer, which

give rise to purplish black berries. The young stems are red. Form 'Argentea' (same as 'Variegata'?) has creamy-white margins to the leaves and is sometimes sold as the Variegated Pagoda Dogwood.

Key locations for seeing some: Coughton Court (a fine 'Argentea'); Rock Mill Arboretum, Milverton (recent planting of 'Argentea' by D. Howells).

***Cornus capitata* – Bentham's Cornel or Himalayan Strawberry Tree**

Source: The Himalayas & SW China. Introduced to Britain in 1825.

Distribution: Rare locally – it needs very sheltered sites and is at the edge of its hardiness here.

Further Notes: A small, semi-evergreen tree with large showy, yellow 'flowers' (actually a tight group of tiny flowers surrounded by four large, petal-like bracts) quite unlike our native *C. sanguinea*. These give rise to strawberry-like fruits (like *C. kousa*). The opposite leaves are narrowly oval.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Cornus controversa* – Table (Giant) Dogwood**

Source: East Asia from the Himalayas to Japan. Introduced to Britain in 1880.

Distribution: Occasional in local parks and gardens, most typically in its variegated form.

Further Notes: One of the finest dogwoods. It is a slow-growing, broad tree, typically with horizontal branches that produce distinct tiers of foliage. These are adorned with clumps of small cream flowers in mid summer. The leaves are alternate, with many parallel veins and are smaller and attractively variegated in var. 'Variegata', which is known as the Wedding-cake Tree. The young shoots, autumn foliage and winter buds are reddish.

Key locations for seeing some: Jephson Gardens, Leamington Spa (a fine green-leaved one south of the toilets); Rock Mill Arboretum, Milverton (recent planting by D. Howells, including 'Variegata'); Crewe Lane Arboretum, Kenilworth (a fine 'Variegata'); Reed Business College, Little Compton (a young 'Variegata'); 'The Yews', Moreton Paddox (a young 'Variegata'); Sherbourne Fishing Pool, near Barford (a fine green-leaved one, see below); Ilmington Manor (a 'Variegata'); Barton House, Barton on the Heath (a couple of 'Variegata').

Largest local specimen: Sherbourne Fishing Pool, near Barford (0.85m GBH/2007).

***Cornus florida* – Flowering Dogwood**

Source: N America from Ontario to NE Mexico. Introduced to Britain in about 1730.

Distribution: Rare locally.

Further Notes: One of the dogwoods that produce large, white 'flowers' (actually a tight group of tiny flowers surrounded by four large, petal-like bracts) in spring. The bracts are roundish and often bear a pink flush or mark.

Key locations for seeing some: Warwick Castle (a labelled specimen S of the peacock garden).

***Cornus florida x nuttalli* – *Cornus* 'Eddie's White Wonder'**

Source: A hybrid between the two N American species cited above.

Distribution: Rare locally.

Further Notes: A large shrub or small tree that provides a profuse show of particularly large white 'flowers' (actually a tight group of tiny flowers surrounded by four large, petal-like bracts) in spring. The hanging leaves detract. Another hybrid, *Cornus* 'Ormonde' is similar but more spreading.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells plus 'Ormonde').

***Cornus kousa* – Strawberry Dogwood**

Source: Japan, Korea & Central China. Introduced to Britain in 1875.

Distribution: Local status unclear.

Further Notes: A large, elegant shrub or small tree with large cream-coloured 'flowers' (actually a tight group of tiny flowers surrounded by four large, petal-like bracts) in early summer. These produce clumps of strawberry-like fruits (like *C. capitata*). The autumn foliage can be a rich bronze or red-purple. Var. 'Milky Way' produces a veritable abundance of flowers and fruit. Var. 'Chinensis' (the form from China) is taller with leaves in more stratified clumps.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells of both above-mentioned forms); Crewe Lane Arboretum, Kenilworth; Reed Business College, Little Compton (a young one); Arbury Hall (in private arboretum).

***Cornus kousa x capitata* – *Cornus* 'Norman Haddon'**

Source: A hybrid between the two Asian species cited above. Developed in Somerset in the late 1960s.

Distribution: Rare locally.

Further Notes: A small tree with a graceful, spreading habit. The 'flowers' (actually a tight group of tiny flowers surrounded by four large, petal-like bracts) produced in June have pointed cream-white bracts, turning to deep pink in July. In autumn these give rise to a crop of hanging, strawberry-like fruits. Some leaves persist through the winter.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells); Crewe Lane Arboretum, Kenilworth.

***Cornus mas* – Cornelian Cherry**

Source: S Europe and W Asia. Long cultivated in Britain.

Distribution: Occasional in local parks, gardens and churchyards.

Further Notes: A large shrub or small, densely branched tree which produces an abundance of small yellow flowers on the naked twigs in February and March. The edible red berries have been used as a cooking ingredient for many centuries, and were sometimes stored in brine like olives, but in Britain they only appear after hot summers. 'Variegata' has variegated leaves like certain other *Cornus*, though the large, cherry-like berries help separate it from those species with clumped strawberry-like fruit.

Key locations for seeing some: Jephson Gardens, Leamington Spa (several along the N edge); Stratford Riverside Park (in shrubbery just S of the Theatre); Warwick Castle (S of peacock garden); Rock Mill Arboretum, Milverton (recent planting by D. Howells); Newbold Revel (NE edge of playing field); Walton Hall (a couple of fine multi-stemmed ones near the entrance);

Ettington Park (one at woodland edge S of church); Ilmington Manor (a very fine one beside drive); Walsgrave Church, Coventry (several in SE corner of churchyard). *Variegata*: Crewe Lane Arboretum area, Kenilworth.

Largest local specimen: probably the Ilmington Manor specimen (2.18m @ base/2007 which gives rise to numerous stems).

***Cornus nuttalli* – Pacific Dogwood**

Source: W North America. Introduced to Britain in 1835.

Distribution: Rare locally.

Further Notes: A large shrub or small tree that provides a profuse show of particularly large white 'flowers' (actually a tight group of tiny flowers surrounded by four large, petal-like bracts) in spring. These give rise to raspberry-like fruit in late summer and autumn. It is one of the parents of *Cornus* 'Eddie's White Wonder', which it closely resembles, though the dark central part of the inflorescence is larger, and the 'petals' tend to develop a pink flush at their tips.

Key locations for seeing some: St Nicholas Park, Warwick (a fine one on the path leading from Emscote Road); Ilmington Manor (a medium-sized one); Rugby School (a small one beside sports field at top of Barby Road close to pavement).

***Cornus sanguinea* – Common or Bloodtwig Dogwood**

Source: A widespread native species, but also much cultivated.

Distribution: Frequent in our area, occurring in woods, hedgerows, scrub, gardens, roadsides and other screens/shrubberies, though often as a short-term feature.

Further Notes: Typically a shrub (occasionally attaining the stature of a small tree) often featuring bright red or yellow twigs on younger growth, which is particularly conspicuous in winter, though older growth loses this and wild trees are rarely so bright. Small clumps of white flowers are produced in early summer and give rise to shiny purple-black berries. These contain an oil which was once used for oil lamps and soap. The foliage can give a fine show of red in autumn. Some variegated dogwoods with red twigs appear to belong to this species. To keep the bright twigs, cut back to within a few inches of the ground in April every 1 -2 years.

Key locations for seeing some: Coughton Court; Brandon Marsh; Brueton Park, Solihull (beside the lake); Ann Hathaway's Cottage, Shottery; Baddesley Clinton (around the pools); Jephson Gardens, Leamington Spa; Walton Hall (by lake); Newnham Paddox (by lower pool), Stratford Rec. Possible variegated specimens: Honington Hall.

***Cornus sericea* (see under *C. stolonifera*)**

***Cornus stolonifera* – Red Osier Dogwood**

Source: N America. Introduced to Britain in about 1900.

Distribution: Local status unclear. Possibly one of the dogwoods currently favoured by developers in contemporary landscaping.

Further Notes: A shrubby dogwood with colourful twigs which are red in the wild form but can be yellow to olive green in varieties such as 'Flaviramea'. In N America, the twigs were used for basketry in much the same way as certain

willows have been used in Europe. Also known as *C. sericea* in some literature.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting of 'Argentea' by D. Howells); Keresley House, Coventry (on owner's 2007 plant list, but not seen by the author).

***Corylus* – Hazels**

Medium-sized deciduous shrubs or small trees of the northern Hemisphere (about fifteen species in total) producing hazel nuts within a 'nest' of leaf-like bracts. The female flowers are tiny but the male flowers are arranged within long catkins that can be very conspicuous in late winter. To identify the various species and forms, check the shape and colour of the leaf, the shape of the leafy bracts surrounding the nut and the overall shape of the 'tree' (only Turkish Hazel *C. colurna* has a proper trunk). One species, Common Hazel *C. avellana*, is native to Britain.

***Corylus avellana* – Common Hazel**

Source: A widespread native shrub, also found in Europe, Turkey and N Africa.

Distribution: Frequent in many local ancient woods and older hedgerows, particularly within the Ancient Arden zone in the north and west of our area. Also planted as an ornamental in some local parks and gardens.

Further Notes: Hazel used to be a commercially important component of our local broadleaved woods where it was the main species subject to 'coppicing' (regular cutting of a tree at ground level to harvest small trunks). The cut wood was used for fence making, 'wattle' in traditional house building and as a source of charcoal (important for high temperature burning before coal became popular). Coppicing largely ceased after World War II, with many ancient woods replanted with conifers and others just neglected. There has been a resurgence of coppicing recently, particularly at woods managed by Warwickshire Wildlife Trust (e.g. Ryton Wood). Hazel produces a characteristic hazel nut that is much loved by mice, squirrels, and (at its few existing local sites) dormouse. The nuts taste very similar to those that you can buy (which are from the related Filbert *C. maxima*) but are smaller. In late winter, the pendulous, cream-coloured male catkins are an attractive precursor to those first mild days of spring. The female flowers are bud-like and barely noticeable. Corkscrew Hazel 'Contorta' is a strange-looking variety with very contorted stems, shoots and leaves. Common Hazel never produces a proper tree as such, just a tall shrub with an ill-defined trunk or trunks.

Key locations for seeing some: Ancient woods: many including Ryton Wood; Brandon Wood; Piles Coppice; Clowes Wood, near Earlswood; Tile Hill Wood Coventry; Bannams Wood, Moreton Bagot. Old hedgerows: many in the Arden, especially those associated with sunken lanes in the areas around Claverdon, Lowsonford, Tanworth-in-Arden, Temple Balsall, Allesley, Keresley and Maxstoke. Formal settings: the type can be found in Jephson Gardens, Leamington Spa (along with the other two hazels) and College Gardens, Warwick. Contorta: College Garden, Warwick; Warwick University, Westwood Campus (in formal garden) and Ragley Hall Gardens.

Largest local specimen: a specimen in Stoneleigh Park, near Stare Bridge has a solid base of 2.25m @ 5cm/2007. There are also some very large

multistemmed coppice stools in some local ancient woods and sites like Middleton Hall.



Coppice stools of Common Hazel (top left) are common in ancient woods and were formerly an important source of twigs for fencing and charcoal-making; the male catkins (top right) are conspicuous features of our woods and hedgerows in late winter. The bracts surrounding the nuts provide useful identification clues, being relatively small in Common Hazel (bottom left) but very ornate in Turkish Hazel (bottom right).

***Corylus colurna* - Turkish Hazel**

Source: SE Europe and Asia Minor. Introduced to Britain in 1582.

Distribution: Present in some local parks, roadsides and occasionally gardens, an increasingly popular tree in municipal planting schemes.

Further Notes: The leaf tends to be rather larger and less smoothly rounded than Common Hazel. This hazel usually develops into a proper tree with a defined trunk bearing particularly rough, corky. The nut is nested within frilly, bristly bracts.

Key locations for seeing some: Rugby: Caldecott Park (several in 2006, possibly lost in 2008 refurbishments) and Rugby School (one of 0.91m GBH/2008) beside sports ground at north end of Dunchurch Road); Jephson Gardens, Leamington Spa (one by the river near the main entrance); Stratford: The Rec (beside the car park) and within Stratford Golf Course, Tiddington Road; Coventry: Green Lane South (recent roadside plantings) and close to the Manor Road-St Patrick's Road pedestrian bridge crossing the inner ring road near the railway station.

***Corylus maxima* – Filbert**

Source: SE Europe and Turkey. Introduced to Britain in 1759.

Distribution: Occasional in local parks and gardens.

Further Notes: This species closely resembles *C. avellana* but has larger leaves and much longer bracts surrounding the nuts. The form found locally is Purple Filbert 'Purpurea', which has attractive purple-green foliage.

Key locations for seeing some: Jephson Gardens, Leamington Spa (near the Glass House and elsewhere); Ragley Hall Gardens; Upton House (bog garden); Warwick (overhanging bench opposite St Mary's Church entrance); Crewe Lane Arboretum, Kenilworth.

***Corylus colurna* x *C. maxima* 'Purpurea' – *Corylus* 'Te Terra Red'**

Source: A cross between the two above-mentioned hazels, marketed from the Netherlands in the early 1990s, but possibly developed some time before this.

Distribution: Rare locally, but possibly confused with Purple Filbert (see above).

Further Notes: A red-leaved hybrid, which acquires a tree shape (with a distinct trunk bearing corky bark) from *C. colurna* but purple foliage from *C. maxima*.

Key locations for seeing some: Rock Mill Arboretum, Milverton (young planting by D. Howells).

***Cotinus coggygria* – Smoke-bush (Smoke-tree)**

Source: Central & S Europe to China. Introduced to Britain in about 1656.

Distribution: Frequent in local parks and gardens.

Further Notes: A medium-sized shrub or small tree frequently seen in both its green-leaved form and purple-leaved form 'Purpurea'. The foliage is comprised of raquet-shaped leaves and distinctive sprays of flowers, which give it its name. Form 'Grace' is a hybrid between *C. coggygria* and the N American Chittam Wood *C. obovatus* that is particularly splendid.

Key locations for seeing some: Leamington Spa: Jephson Gardens, (near underpass) and Beverley Road (a nice trunked one in a front garden half way

along south carriageway); Riverside Gardens, Stratford (an old one near the Ferry); Moreton Hall, Moreton Morrell (green and purple ones in front of Hall); Rock Mill Arboretum, Milverton (young planting of 'Grace').

Largest local specimen: Honington Hall garden (a collapsed, spreading specimen of some age, main stem 0.61m GBH/2007) [check the Beverley Rd specimen](#).

***Cotinus obovatus* – Chittam Wood (American Smoke-tree)**

Source: SE USA, where rare as a wild tree. Introduced to Britain in 1882.

Distribution: Rare locally.

Further Notes: The leaflets are larger than those of *C. coggrygia* and less rounded, especially at their bases. The flower and seed sprays are less conspicuous.

Key locations for seeing some: Barton House, Barton on the Heath (a young one).

***Cotoneaster* species – the larger 'tree' cotoneasters**

Source: Tree Cotoneaster *C. frigidus* comes from the Himalayas and was introduced to Britain in 1824. But it is also the parent of a swarm of hybrids that are collectively known as *C. x watereri*.

Distribution: Tree Cotoneasters of various sorts are frequent in shrubberies of parks, housing estates, gardens, roadsides and are occasionally planted individually.

Further Notes: Medium-sized, semi or fully evergreen shrubs with striking clusters of red fruit, which often remain on the tree throughout the winter. The true *C. frigidus* has particularly long, flatish leaves, which are shed over the winter, and a rather untidy shape with a tendency for many long, straight branches to grow directly upwards from a leaning trunk. *C. x watereri* is generally neater, evergreen, and with shiny leaves that have the veins impressed, but precise identification can be difficult. Tree cotoneasters produce clumps of white flowers in June. Various other smaller, tiny-leaved cotoneasters can be found in parks and gardens, or occasionally as naturalised populations, but are not covered by this catalogue.

Key locations for seeing some: College Garden (a fine one, possibly a true *C. frigidus* close to the Butts entry) and Pageant Garden, Warwick; Charlecote Park public car park; Knowle Park, Knowle (nr children's play area); Crewe Lane Arboretum, Kenilworth (a 'Watereri'); Ashorne Manor (several probable 'Watereri').

***Crataegus* – Thorns**

Mostly deciduous shrubs or small trees belonging to the rose family. They produce attractive blossom in spring or early summer followed by a crop of colourful berries ('haws') by late summer. Most species have thorns on the twigs. About 200 species are recognised worldwide and occur across the northern hemisphere. Most have lobed leaves, though the American cockspur thorns have simple ones. Two 'hawthorns' *C. laevigata* and *C. monogyna* are native to Britain including Warwickshire. Thorns can be extremely difficult to identify especially some of the North American and European species with lobed leaves (a variety of which have been planted locally). Check the precise shape and colour of the leaves and whether they are evergreen or deciduous,

the date of flowering, the number of anthers and stigmas in the flower, the size, colour, hairiness and persistence of the berries, the number of pips they contain, the presence and length of any thorns and the bark of the trunk. Brueton Park, Solihull had a 'Thorn Zone' with an interesting variety of species (though several had died by 2010).



The attractive white blossom of Common Hawthorn (left) is a conspicuous feature of the Warwickshire countryside in May; the bright red berries (right) are equally conspicuous in late summer and autumn.

***Crataegus chrysoarpa* – Fireberry Hawthorn**

Source: E North America.

Distribution: Scattered locations locally, usually in public parks and cemeteries.

Further Notes: One of a number of N American thorns that have shallowly lobed leaves. In this species, the leaves are rather large, broad, and semi-shining. The stipules at the base of the leaf stalks can be very conspicuous. The slightly hairy haws are about 15mm across and mature bright red. The thorns can be up to 4cm long. It is possible that further closely related species such as *C. pedicellata* may be present locally too as our specimens vary somewhat with respect to berry size, thorn length and details of the leaves.

Key locations for seeing some: Brueton Park, Solihull (at least one within the 'Thorn Zone' between the Parkridge Centre and Malvern Park); Jephson Gardens, Leamington (0.91m GBH/2007, confirmed as *chrysoarpa* by O. Johnson based on flowers), Stratford Riverside Gardens (overhanging Southern Lane near the toilets); Coventry: London Road Cemetery (S sector) and Canley Crematorium (NW corner); Walton Hall (near main entrance); Studley Castle (a small one beside entrance to walled garden); The Old Rectory, Lighthorne (a very fine one, see below); Bishops Itchington Church

(several young ones). A strange specimen in Warwick Cemetery (hedge beside IBM) is clearly different and may be *C. macracantha* according to Owen Johnson (based on images), but flowers have not been checked.

Largest local specimen: The Old Rectory, Lighthorne (1.22m GBH/2007, typical in most respects but thorns sparse and short low down, becoming slightly more numerous but only up to 2cm long higher up).



Fireberry Hawthorn (left) showing the rather large shallowly leaved leaves and large, red, downy berries. *Broad-leaved Cockspur Thorn* (right) showing the vicious thorns and plum-like leaves.

***Crataegus crus-galli* – Cockspur Thorn (unconfirmed)**

Claimed from Warwick University, but may be *C. persimilis* which is often mislabelled. It has much longer thorns, up to 8cm long.

***Crataegus x dippeliana* – a hybrid thorn**

Source: A putative hybrid between the Middle Eastern *C. tanacetifolia* and the N American *C. punctata*.

Distribution: Rare locally and nationally.

Further Notes: Forming a small tree with a broad, well-shaped canopy on a distinct trunk that bears neat ridges quite (unlike the scaly bark of *C. monogyna* or *C. orientalis* or the square-cracked, pear-like bark of *C. tanacetifolia*). The leaves are larger than *C. monogyna* and have more lobes, though these lobes are shallower than in *C. tanacetifolia* and the leaves are greener and only slightly furry. The flowers occur in discrete bunches about 2-3 weeks later than *C. monogyna* (typically early to mid June) and are larger. About 20 anthers are present and four styles. The haws are twice as big as those of *C. monogyna*, orange-red, hairy and contain 5 seeds.

Key locations for seeing some: Canley Crematorium, Coventry (about 15 specimens forming avenues along Rhododendron Drive and Thorn Avenue), confirmed by Owen Johnson based on images. The group seems to include the national champion.

Largest local specimen: the largest Canley specimen is 1.30m GBH/2007 and occurs at the W end of Rhododendron Drive. It was the national champion at the time of writing.



Two of the more unusual thorns found in Warwickshire, the hybrid *Crataegus x dippeliana* (left) and Grignon's Thorn (right).

***Crataegus x grignonensis* – Grignon's Thorn**

Source: A hybrid involving the Mexican cockspur thorn *C. stipulacea* and another American species (both *C. crus-galli* and *C. pubescens* are cited depending on source).

Distribution: Rare locally, just a few specimens in Leamington are known to date, though it closely resembles commoner hawthorns from a distance.

Further Notes: A small tree resembling a cockspur thorn or a strange Midland Hawthorn *C. laevigata*. The leaves are essentially oval but with shallow, rounded, forward-pointing lobes at their tips (the various cockspur thorns have fine teeth along the leaf margin but never lobes). The haws ripen deep red by October are about 15mm wide but rather elongate and typically contain 2 seeds (like *C. laevigata*). They persist throughout the winter giving a fine display.

Key locations for seeing some: Leamington Spa: Jephson Gardens (three along S edge beside Mill Road, the largest 0.97m GBH/2007); Greenwood Court, off Upper Holly Walk (several, probably planted from the same batch as the Jephson Gardens trees, largest measured 0.98m GBH/2009).

***Crataegus heterophylla* – Various-leaved Hawthorn (requires confirmation)**

Recorded from Ardens Grafton in ‘oldish hedge’, teste Don Hildred 1996, checked by John Bowra. Not located by the author and a rather obscure species that could easily be a misidentification. It was probably identified using a version of Stace’s New Flora of the British Isles, which is an unsafe basis for identifying foreign *Crataegus* as it is not comprehensive.

***Crataegus laevigata* – Midland Hawthorn**

Source: A widespread native, most frequent in Central England – hence its name, though also found widely in W Europe.

Distribution: The red-flowering varieties are frequent in parks, larger gardens and along roads, especially in urban areas. The white-flowered wild form is widespread but much less frequent than Common Hawthorn *C. monogyna* (though it is probably widely over-looked as that species). In the wild, it shows a stronger attachment to ancient woods, old hedgerows and clay soils than *C. monogyna* and is more shade-tolerant – which means you can sometimes find it deep within woods.

Further Notes: The leaf tends to have fewer and more rounded lobes than *C. monogyna*, but the best characters are found in the flowers and haws. If you look in the middle of the flower, you will find 2-3 greenish styles in the middle of the anthers (only one in *C. monogyna*). Consequently, if you squash a haw in late summer and autumn, it will produce 2-3 pips. But beware of hybrids with Common Hawthorn (known as *C. x media*) which have intermediate character states and have been found at various local sites, and also Grignon’s Thorn *C. x grignonensis* which has shallow forward-pointing lobes at the leaf tip and slightly larger haws (though still with 2-3 seeds). Local red-flowering hawthorns are typically ‘Pauls Scarlet’ which has deep pink or red double flowers (i.e. extra petals) and a well-formed trunk. Other varieties occasionally encountered locally include ‘Punicea’ (single red flowers with bright white centres), ‘Punicea Flore Plena’ (which has paler flowers than ‘Paul’s Scarlet’, but sometimes occurs as a reversion within a Paul’s Scarlet bush) and ‘Plena Alba’ (double white flowers).

Key locations for seeing some: Red-flowering forms: Leamington: York Walk near Adelaide Rd (‘Paul’s Scarlet’ and ‘Punicea’) and Jephson Gardens (some ‘Paul’s Scarlet’ near children’s play area); Warwick: Cape Road (‘Paul’s Scarlet’ beside police station) and St Nicholas Park; Coventry: Green Lane South; Ragley Hall Gardens and Park (including ‘Punicea’ and ‘Punicea Flora Plena’); Coventry: numerous along Green Lane South and various other roads and parks. Wild Form: Brueton Park, Solihull (in the ‘thorn zone’); Kingsbury Wood; Hampton Wood; Bubbenhall Wood; Stoneleigh Deer Park; Alvecote Priory; Charlecote Park (by children’s play area); Abbey Fields, Kenilworth (on grass near the bowling green hut); Priory Park, Warwick (beside entrance to the CRO); Baddesley Clinton (in hedge beside path leading to chapel); Farnborough Park (frequent in some of the hedges). Plena Alba: one at Compton Wynyates. *C. x media*: old records include Hampton in Arden (Old Station Road, 1991) and Yarningale Lock (1995).



The leaves of Midland Hawthorn (left) typically feature 3 shallow lobes and the berries contain 2-3 pips. Pink-flowering ornamental forms like 'Punicea' (right) are frequent in municipal planting schemes.

***Crataegus x lavallei* - Hybrid Cockspur Thorn**

Source: A probable hybrid between the deciduous true Cockspur Thorn *C. crus-gallii* from North America and the semi-evergreen *C. stipulacea* from Mexico. Introduced to Britain by 1880.

Distribution: Fairly frequent in local parks, streets and larger gardens, and often planted alongside the similar Broad-leaved Cockspur Thorn *C. persimilis*.

Further Notes: The cockspur thorns are a confusing medley of N American shrubs and small trees, all of which have simple unlobed leaves. This one is identified by the lack of thorns combined with relatively long, narrow, semi-evergreen leaves (resembling a Medlar) and downy shoots. It typically has a well-defined trunk (sometimes grafted) and a discrete crown of foliage. The leaf-bearing twigs are finer than *C. persimilis* and tend curve upwards above the plane of the branch that gives rise to them (quite a good character once you've learnt it). It is particularly noticeable in autumn and early winter when the leaves remain stubbornly green and the haws turn a dull orange-red. The deciduous *C. persimilis* by contrast gives an exceptional show of autumn colour as its leaves start to fall and has very bright red haws which are soon eaten by birds.

Key locations for seeing some: Jephson Gardens, Leamington Spa (two fine grafted ones, largest 1.81m @ 60cm/2007 near the big Mulberry E of the Glass house); Walton Hall (several large ones W of the lake); Warwick: Warwick Castle grounds and Cape Road car park (one growing beside a *C. persimilis*); The Rec, Stratford (N end of car park); Elmdon Park, Solihull (several); Crewe Lane Arboretum, Kenilworth; Coventry (urban streets such

as Green Lane South and Radford Rd); Compton Wynnyates (a large, leaning one in coombe NE of the House, 1.77m @ 60cm/2007).

Largest local specimen: the largest Walton Hall tree (1.91m GBH/2006, one of the largest British specimens).

***Crataegus x media* – the hybrid of *C. laevigata* and *C. monogyna* (see under *C. laevigata*)**

***Crataegus monogyna* – Common Hawthorn**

Source: A widespread and abundant native, also widespread in Europe extending east to Afghanistan.

Distribution: Possibly our most abundant shrub, being a major component of local hedges ('quickthorn') and producing scrub on many neglected bits of land. Also planted as an ornamental in parks, churchyards and gardens.

Further Notes: In spring, this is the main source of 'May blossom', and by autumn its 8-10mm bright red haws can be equally conspicuous. The blossom is typically white and very dense – often 'cascading' from shrubs in a manner quite unlike other blossoming species. The flower has a single style, which gives rise to a single pip in the haws (hence the name '*monogyna*' = one *gyne* or female part). The very similar Midland Hawthorn *C. laevigata* has 2-3 styles and pips, and less deeply lobed leaves. But both species can hybridize locally (forming *C. x media*) so beware! Flowers are typically white, but occasionally the petals develop pink tips and can come to resemble form 'Punicea' of Midland Hawthorn (so check the leaf shape and number of styles). It will occasionally form a respectable small 'trunked' tree and some local specimens have attained a height of about 15 metres .

Key locations for seeing some: Abundant in hedgerows throughout our area. The Fosse way near Eathorpe gives one of the best local shows of blossom. Easily seen at nature reserves such as Brandon Marsh, Ufton Fields, Kingsbury Water Park; Coombe Countryside Park, Ashlawn Cutting, Stratford Greenway, Offchurch Greenway, Brandon Wood, Ryton Wood and Draycote Water.

Largest local specimen: Farnicombe Wood (between Brailes Hill and Burmington Grange) - a magnificent specimen with a solid base of 3.9m/2011 giving rise to three stems, the largest of which is 2.39m.

***Crataegus orientalis* – Oriental Thorn**

Source: SE Europe and the Mediterranean. Introduced to Britain in 1810.

Distribution: Rare locally.

Further Notes: Closely resembling Tansy-leaved Thorn *C. tanacetifolia* due the deeply-cut, bluish downy leaves, but with smaller leaves with fewer lobes, and scaly bark (like *C. monogyna*) rather than the square-cracked, pear-like bark of *C. tanacetifolia*. The 15-20mm haws ripen bright red rather than yellowish. The hybrid *C. x dippeliana* is also rather similar but has larger, less deeply lobes leaves and striated bark.

Key locations for seeing some: Crewe Lane Arboretum, Kenilworth; New Place, Stratford (a young one in the Great Garden); possibly another in the 'Thorn Zone' of Brueton Park, Solihull.

***Crataegus persimilis* – Broad-leaved Cockspur Thorn**

Source: N America. Introduced to Britain by 1797.

Distribution: Fairly frequent in local parks, shrubberies and along roadsides. Often planted alongside the similar Hybrid Cockspur Thorn *C. x lavalleyi*.

Further Notes: The cockspur thorns are shrubs and small trees, all of which have simple unlobed leaves. This one is identified by the greater width of its leaves ('prunifolia' means plum-leaved) and the presence of well-developed thorns about 3-4cm long, in contrast to the almost complete lack of thorns in *C. x lavalleyi* (or the truly vicious 4–8cm ones you get in true Cockspur Thorn *C. crus-galli* which is not yet recorded locally). The leaves can give a stunning display of oranges and reds in autumn, usually complemented by the 15mm bright red haws, which are rapidly consumed by birds (in contrast to much more persistent berries and semi-evergreen nature of *C. x lavalleyi*). Local specimens include both 'trunked' trees and trunkless bushes.

Key locations for seeing some: Brueton Park, Solihull (north edge towards Malvern Park); York Walk, Leamington Spa (a bushy one close to river); Warwick: Warwick Castle (a fine one near the Swamp Cypresses), Cape Road car park (one growing beside a *C. x lavalleyi* specimen); Coventry: along Green Lane (near Gretna Road junction and also near St Martin's Lane junction); Coughton Court (a couple in the formal gardens).



The foliage and berries of Common Hawthorn (left) contrasted with that of Oriental Thorn (right).

***Crataegus punctata* – Spotted Thorn (Dotted Hawthorn)**

Source: E North America. Introduced to Britain in 1789.

Distribution: Rare locally.

Further Notes: One of the various N. American thorns that have shallowly lobed leaves. In this species, the leaves are particularly tapered at their bases

and have noticeably impressed parallel veins on the upper side and small lobes restricted to the leaf tips. The haws are quite large (15mm) and dull red or red and yellow with conspicuous white dots and contain 5 seeds. The flowers are strongly perfumed and have 5 stigmas. The overall habit is broad and numerous thorns of about 4cm are present.

Key locations for seeing some: Brueton Park, Solihull (at least two within the 'Thorn Zone' between the Parkridge Centre and Malvern Park).

***Crataegus tanacetifolia* – Tansy-leaved Hawthorn**

Source: Asia Minor to Syria. Introduced to Britain in 1789.

Distribution: Very occasional in local parks and larger gardens.

Further Notes: A late-flowering 'thorn' (June as opposed to the May). The leaves are much more deeply cut than *C. monogyna* and covered in a beautiful blue-grey down when fresh (though this can fade by the end of the summer). The clusters of rather large white flowers eventually give rise to bunches of 20mm yellowish haws. The bark tends to be dark and square-cracked like a pear. *C. x dippeliana*, which is a putative hybrid involving *C. tanacetifolia* and *C. punctata*, has greener, less deeply lobed leaves and more striated bark. Oriental Thorn *C. orientalis* is also very similar but has scaly bark, smaller leaves with fewer lobes, and bright red haws.

Key locations for seeing some: Jephson Gardens, Leamington Spa (a fine specimen beside the 'lower path' leading to the Willes Road gate; Hampton Manor, Hampton in Arden (a fairly mature but diseased one in car park 1.05m GBH/2006).

***X Crataemespilus grandiflora* – Medlar-thorn**

Source: A very old 'cross-generic' hybrid of Medlar *Mespilus germanica* and a *Crataegus*, probably Midland Hawthorn *C. laevigata*.

Distribution: Rare locally.

Further Notes: A small tree not unlike a cockspur thorn but with leaves that are often lobed on strong growth and 2 cm red berries that have rather large 'holes' at their tips like small versions of medlar fruits (which average 4cm, mature brown and are accompanied by much longer, larger leaves).

Key locations for seeing some: Crewe Lane Arboretum, Kenilworth (a 'trunked' specimen); Brueton Park, Solihull (a shrub along the N edge).

***Crinodendron hookerianum* – Chilean Lantern Tree**

Source: Chile. Introduced to Britain in 1848.

Distribution: Rare locally.

Further Notes: An attractive evergreen shrub with scarlet, lantern-like flowers that resemble those of fuschias.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells); Keresley House, Coventry (a young one); Barton House, Barton on the Heath.

***Crinodendron patagua* – Lily of the Valley Tree**

Source: Chile.

Distribution: Rare locally and nationally (it is more frost sensitive than *C. hookerianum*).

Further Notes: An attractive evergreen shrub with white, hanging, bell-like flowers.

Key locations for seeing some: Barton House, Barton on the Heath.

***Cydonia oblonga* – Quince**

Source: Probably W Asia, though cultivated widely. Introduced to Britain many centuries ago.

Distribution: Occasional in parks and historic gardens.

Further Notes: A relative of pears and apples with large white or pink flowers followed by 5cm yellow, pear-like fruit (usually covered in soft down), which are edible by late autumn.

Key locations for seeing some: Stratford: Riverside Gardens (near the public toilets, close to the Medlar), Shakespeare's Birthplace garden and Ann Hathaway's Cottage (several in each); Coughton Court orchard area; Sherbourne Fishing Pool, Sherbourne. A *Cydonia* at Barton Manor, Barton on the Heath is said to be a species known as 'Varga', though this is not listed in any catalogues seen.



The large, pear-like fruit of Quince (left) is covered by a soft down unlike any pear. The remarkable flowers of the Dove or Handkerchief Tree (right), these from one of our larger specimens at Moreton Morrell Church.

***Cytisus battandieri* – Pineapple Broom**

Source: Morocco. Introduced to Britain in 1922.

Distribution: Scarce locally.

Further Notes: A distinctive large shrub or small tree with attractively grey-bloomed trifoliate leaves (leaves comprised of three leaflets) and large spikes of bright yellow, pea-like flowers that smell of pineapples.

Key locations for seeing some: Canley Crematorium (several near the offices); Newbold Revel (one in a shrub border on the formal gardens); Keresley House, Coventry (a small one); Warwick School, Warwick.

***Davidia involucrata* – Dove (Handkerchief) Tree**

Source: W & Central China, where endangered. Introduced to Britain in 1901.

Distribution: Occasional in parks, larger gardens and churchyards but becoming more popular.

Further Notes: An unmistakable tree when in flower (typically in May), with two petal-like white bracts one of which is very large and pendulous (hence its other name Handkerchief Tree). The leaf is also quite distinctive once known - heart-shaped but with large triangular teeth along the margin and impressed parallel veins. It can produce a medium-sized tree in time and may not flower until it is 15-20 years old.

Key locations for seeing some: Riversley Park, Nuneaton (medium-sized specimen by the small pool near the Museum, first flowered in 2004); Moreton Morrell Churchyard (a similar size, flowering very well by 2010); Brueton Park, Solihull (within the Parkridge Centre); Ragley Hall Gardens (young one); Allesley Park, Coventry (young one south of the Hall); Coughton Court (young one in formal gardens); Rock Mill Spinney, Milverton (young one); Keresley House, Coventry (a young one); Sherbourne Fishing Pool, near Barford; rear garden of The Palings, Clifford Chambers (0.77m @ 1m/2007 with a quite large crown, easily seen from adjacent footpath); Wolverton (one beside track leading to the church); Arbury Hall (a couple, largest 1.32m GBH/2009).

Largest local specimen: Shuckburgh Park 'Wild Garden' area (1.78m @ 80cm/2007, the trunk dividing into several stems at c1.5m).

***Decaisnea fargesii* – Blue Sausage Fruit (Dead Man's Fingers)**

Source: Central China.

Distribution: Only a single local site known.

Further Notes: A shrubby tree (usually with multiple lanky stems) with very long pinnate leaves (up to 1m long) and remarkable fleshy fruit pods that look like blue sausages and contain several dozen black 'beans' within a liquid.

Key locations for seeing some: Shuckburgh Park 'Wild Garden' area.

***Diospyros kaki* – Kaki (Chinese Persimmon)**

Source: China, though long cultivated in Japan. Introduced to Britain in 1796.

Distribution: Only a single local site known.

Further Notes: This is the source of 'Sharon Fruit', which can be purchased from some local outlets.

Key locations for seeing some: Keresley House, Coventry (a young one).

***Diospyros lotus* – Date-plum**

Source: Long cultivated in Asia and probably introduced to Britain many centuries ago.

Distribution: Rare locally.

Further Notes: Typically growing into a large multi-stemmed shrub with glossy, hanging leaves that lack any teeth on the margin and a very distinctive fruit. The latter is best described as a 1–2cm green berry (date-plum) that

nestles amongst four short bracts directly upon the shoot without any stalk. The fruit does not ripen sufficiently in Britain to become edible.

Key locations for seeing some: Jephson Gardens, Leamington Spa (east section, on slope behind the public toilets/cafe); Barton House, Barton on the Heath.

***Diospyros virginiana* – Persimmon (unconfirmed, could it be *D. kaki*?)**

Source: SE USA.

Distribution: Rare locally.

Further Notes: Resembling Date-plum *D. lotus* but leaves with longer stalks (10-25mm as opposed to 6-12), larger flowers and much larger 4cm fruit that ripen orange-red. These are edible but rarely ripen sufficiently in Britain.

Key locations for seeing some: Binton (front garden of northernmost house in village on Main Road - teste Ralph Davies).

***Dipelta floribunda* – Dipelta**

Source: Central & Western China. Introduced to Britain in 1902.

Distribution: Rare locally.

Further Notes: A rare, large shrub with masses of fragrant white flowers in May bearing attractive yellow patterns in their centres in May.

Key locations for seeing some: Rock Mill Spinney, Milverton (young planting).

***Dipteronia sinensis* – Dipteronia**

Source: China. Introduced to Britain in 1904.

Distribution: Rare locally.

Further Notes: A rare large shrub to small tree with pinnate leaves not dissimilar to species such as Black Walnut *Juglans nigra* or wingnuts *Pterocarya*. But the two *Dipteronia* species are actually close relatives of maples *Acer*, and have a similar arrangement of paired fruits, though lacking the long 'wings' of *Acer*.

Key locations for seeing some: Rock Mill Spinney, Milverton (young planting).

***Drimys lanceolata* – a winter's bark**

Source: Tasmania and SE Australia. Introduced to Britain in 1843 (though initially discovered during the second Captain Cook voyage).

Distribution: Rare locally.

Further Notes: A medium to large shrub of upright habit with purplish-red shoots and creamy-white flowers.

Key locations for seeing some: Rock Mill Spinney, Milverton (young planting); Hampton Manor, Hampton in Arden (a few).

***Elaeagnus angustifolia* – Oleaster (Russian Olive)**

Source: W and Central Asia, where it typically grows along riverbanks. Introduced into Europe as a plant of cultivation in the 1700s.

Distribution: Rare locally.

Further Notes: The first impression of this small tree or shrub is of a very untidy, thorny Willow-leaved Pear *Pyrus salicifolia*, as it shares with this species the possession of narrow, silvery leaves. But the flowers are very

different to any other fruit tree, being yellowish and rather tubular. The fruit resembles tiny apples and is edible. The species has become an invasive weed along rivers in parts of N America.

Key locations for seeing some: Riversley Park, Nuneaton (one specimen close to the bend in Clinic Drive and a smaller one at the S end of the park).

***Embothrium coccineum* – Chilean Firebush**

Source: S Central Andes e.g. in Chile and Patagonia. Introduced to Britain in 1846.

Distribution: Rare locally (it prefers wetter parts of Britain such as Ireland).

Further Notes: Normally an erect semi-evergreen tall shrub or small tree producing striking clumps of elongate, orange-red flowers in May and early June.

Key locations for seeing some: Kenilworth (near the senior Citizens Meeting House off Southbank Road); Rock Mill Arboretum, Milverton (recent planting by D. Howells); Barton House, Barton on the Heath (a small one).

***Emmenopterys henryi* – Emmenopterys**

Source: China (where rare). Introduced to Britain in 1907.

Distribution: Rare locally (and probably struggling to grow in our conditions).

Further Notes: A small tree or large shrub of spreading habit with large ovate leaves that unfold bronze to produce an attractive effect. It does not usually flower in the UK.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Eriobotrya japonica* – Loquat (Japanese Medlar)**

Source: SE China, though cultivated in Japan for over a thousand years. Introduced to Britain in 1787.

Distribution: Only a single local site known.

Further Notes: An obscure shrubby fruit tree distantly related to plums and cherries with a similar stone-bearing fruit. The long, evergreen leaves have a similar size and proportions to those of a Sweet Chestnut and the new shoots are woolly. The *Crataegus*-like flowers form in the autumn and the fruit matures the following year. Requires very warm and sheltered locations to grow well and produce edible fruit. Grown commercially in many parts of the world, including California, and with a number of varieties that vary in fruit characteristics and hardiness.

Key locations for seeing some: Keresley House, Coventry (a young one).

***Eucalyptus* – Eucalypts, Australian Gum Trees**

A very large group (about 500 species) of evergreen broadleaved trees. They are entirely confined to Australasia in the wild, but have been widely introduced throughout the world as timber or amenity trees. The leaves are leathery and often silvery. Many species have round juvenile leaves on young growth and longer, willow-like mature leaves in the canopy. There appears to be at least two species in our area, but further investigation is required.

Eucalypts currently hold the world height record for broadleaved trees, with some specimens attaining 100 metres.



Cider Gum (left) is the most widespread eucalypt in Warwickshire and is especially conspicuous in winter when most other large broadleaves have lost their foliage. *Snow Gum* (right) is a less frequent species with highly attractive bark.

***Eucalyptus coccifera* – Mount Wellington Peppermint**

Keresley House, Coventry - on owner's 2007 plant list, but not seen by the author.

***Eucalyptus gunnii* – Cider Gum**

Source: Marshy parts of Tasmania. Introduced to Britain in 1846.

Distribution: This appears to be the main eucalypt of our area and is frequent in gardens (especially those of villages and farmsteads) and occasionally in parks.

Further Notes: In winter, this is a conspicuous tree with evergreen, blue-green, willow-like foliage and flaking brownish and yellowish bark (evergreen oaks like *Quercus ilex* have a very different shape and very different bark). The small flowers are in groups of 3 and their buds have a distinctive rim at their tips. Younger trees have rounded juvenile leaves lower down, but these become lost in mature trees. It can attain a height of 35 metres, though few local specimens exceed 20. Many good local specimens were lost following the exceptionally hard winter of 2010-11.

Key locations for seeing some: Ashorne Manor (two fine ones in the car park); Caldecott Park, Rugby (edge of bowling green); Parkridge Centre, Brueton Park, Solihull.

Largest local specimen: currently The Old Post Office, Frankton (1.88m GBH/2007), though relatively few large trees have been measured.

***Eucalyptus nicholii* – Narrow-leaved Black Peppermint**

Keresley House, Coventry - on owner's 2007 plant list, but not seen by the author.

***Eucalyptus pauciflora* – Snow Gum and Cabbage Gum**

Source: Australia (the high mountains of Victoria & New South Wales). Introduced to Britain in 1848. Subspecies *niphopila* is the Snow Gum, and subspecies *pauciflora* is the Cabbage Gum.

Distribution: Seemingly scarce locally but becoming more frequent in new plantings and easily obtained from local suppliers.

Further Notes: The grey and white, peeling bark (as opposed to brown, orange and pink bark of *E. gunnii*) and narrow leaves with main veins parallel to the leaf axis (they diverge from the axis in *E. gunnii*), are good clues that you have found *E. pauciflora*. It rarely forms the round juvenile leaves of other local eucalypts. Snow Gum appears to be the more frequent of the two, and has greener leaves than Cabbage Gum. Typically a very fast growing tree.

Key locations for seeing some: Crewe Lane Arboretum, Kenilworth (recent planting); Compton Wynyates (a young one in meadow near main entrance); Keresley House, Coventry (two young Cabbage Gums, which have grown impressively in just a few years); Sherbourne Manor, Sherbourne (a fine one with four main stems, the largest 0.94m GBH/2008).

***Eucalyptus perriniana* – Spinning Gum**

Keresley House, Coventry - on owner's 2007 plant list, but not seen by the author.

***Eucryphia glutinosa* – Rose-leaved Eucryphia**

Source: Central; Chile, where it is a rare rainforest plant. Introduced to Britain in 1859.

Distribution: Rare locally and nationally.

Further Notes: A fast-growing shrub or small tree with white *Philadelphus*-like flowers that crowd the branches from July to September. The local specimens are variegated.

Key locations for seeing some: young ones at Barton House, Barton on the Heath.

***Eucryphia x intermedia* – Rostrevor Eucryphia**

Source: A hybrid of Rose-leaved Eucryphia *E. glutinosa* from Central Chile and Tasmanian Leatherwood *E. lucida* from Tasmania that arose in an Irish garden early last century.

Distribution: Rare locally.

Further Notes: A fast-growing shrub or small tree with white *Philadelphus*-like flowers that crowd the branches from July to September. The leaves are variable, some being simple, whilst others are trifoliate.

Key locations for seeing some: young ones at Rock Mill Arboretum, Milverton and Barton House, Barton on the Heath.

***Eucryphia lucida* – Tasmanian Leatherwood**

Source: Tasmania.

Distribution: Rare locally.

Further Notes: A very upright *Eucryphia* with rather narrow leaves that are silvery beneath.

Key locations for seeing some: Barton House, Barton on the Heath (in secret garden).

***Eucryphia x nymansensis* – Nymans Eucryphia**

Source: A hybrid of Ulmo *E. cordifolia* and Rose-leaved Eucryphia *E. glutinosa* both from Central Chile developed in Sussex in 1914.

Distribution: Rare locally.

Further Notes: Resembling *E. x intermedia* but with narrower petals and broader, darker leaves. At Barton House, one can find a specimen of each planted alongside each other so that they appear as a single bush with strangely contrasting leaves and flowers.

Key locations for seeing some: young ones at Rock Mill Arboretum, Milverton and Barton House, Barton on the Heath.

***Euonymus europaeus* etc – (European) Spindle and other spindles**

Source: *E. europaeus* is a native species of our area, but various foreign spindles (mainly small shrubs) have also been planted locally for amenity.

Distribution: Wild Spindle occurs in woods, hedges and scrub – preferring lime-rich soils, but is found occasionally in local parks and gardens. However, there are a number of similar introduced species.

Further Notes: The most distinctive and attractive feature of spindle trees is the colourful (typically pink and red), flower-like fruits that form in late summer and last well into winter. The pink fruit-bearing capsules split open into four parts, each one with an attached orange berry which is poisonous. The flowers that proceed these in May and June are white and in loose clusters, but between flowering and fruiting spindles are nondescript shrubs that are easily overlooked.

Key locations for seeing some: European Spindle: Bannam's Wood, Morton Bagot (various places beside the footpath running through the wood); Stratford Riverside Gardens (one near the toilets, another nearby towards the river); Jephson Gardens, Leamington Spa (just E of Newbold Terrace entrance); Allesley Park, Coventry (several in area S of the Hall); Ettington Park (one on N verge of road to Ettington facing entrance to park); Ann Hathaway's Cottage, Shottery; Welford on Avon Church; Talton House near Newbold on Stour (near entrance gate); Coughton Court (close to the riverside walk). Euonymus collections: Rock Mill Arboretum, Milverton (nine *Euonymus* species in 2006, including *E. alatus*, *E. atropurpureus*, *E. cornutus*, *E. europaeus*, *E. grandiflorus*, *E. planipes* and *E. oxyphyllus*); Keresley House, Coventry (includes *E. europaeus* 'Red Cascade', *E. grandiflorus* and *E. alatus*).

***Fagus* – Beeches**

Large, deciduous trees of the northern hemisphere (ten species) related to oaks *Quercus*, sweet chestnuts *Castanea* and southern beeches *Nothofagus*. The nuts are contained within characteristic spiky fruits called 'mast', which can drop in profusion to form a dense carpet under trees in autumn. The various species are very similar and most easily distinguished from each other by leaf shape and details of the mast. Only Common Beech *F. sylvatica* is native to Britain.



Common Beech has a number of splendid varieties including the Weeping Beech 'Tristis' (top left), the Copper Beech 'Purpurea' (top right), and the Fern-leaved Beech 'Aspleniifolia' (bottom left). The bright autumn foliage of the normal form (bottom right) is stunning.

***Fagus orientalis* – Oriental Beech**

Source: Balkans, Asia Minor and Caucasus Mountains. Introduced to Britain in 1910.

Distribution: Rare locally, though easily overlooked for our familiar *F. sylvatica*.

Further Notes: Very similar to *F. sylvatica* (which has variable foliage), but the leaves average larger and narrower (especially at the base) and tend to be broadest beyond the middle. This gives the foliage a much heavier appearance than *F. sylvatica*. The mast has much longer (4cm) stalks and the spikes at the base of the fruit capsules are characteristically flattened. It produces fine autumn colour like *F. sylvatica*.

Key locations for seeing some: Birdingbury Hall, Birdingbury (a fine one at end of drive, 2.60m GBH/2007); Brueton Park, Solihull (a young one not far from the Parkridge Centre).

***Fagus grandifolia* – American Beech**

Source: E North America. Introduced to Britain in 1766.

Distribution: Only a single tree known locally.

Further Notes: Easily distinguished by the foliage, with leaves averaging larger than *F. sylvatica*, and with distinct regular teeth around their margins, rather reminiscent of Sweet Chestnut foliage. It can give a fine show of yellow in autumn and contributes much to the colourful 'fall' of North America. This is a slow growing species in Britain, preferring hotter summers.

Key locations for seeing some: 'The Yews', Moreton Paddox (1.72m GBH/2007, just below a graft line).

***Fagus sylvatica* – Common Beech**

Source: A native of S & W Europe, including southern England, but probably not as far north as Warwickshire.

Distribution: Very frequent locally in parks, gardens, woods and as an occasional hedge.

Further Notes: The thick, shiny leaves, smooth grey bark, long, narrow buds and distinctive fruit ('mast') make for a fairly recognisable tree. A good proportion of local trees have reddish leaves of varying darkness (Copper Beech or 'Purpurea'). Less frequent forms include 'Tristis' (Weeping Beech), 'Aspleniifolia' (Fern-leaved Beech or Cut-leaved Beech with deeply incised leaf margins on all or many leaves), 'Rohanii' (purple leaves with moderately incised margins), the fastigiate (i.e cypress-shaped) 'Dawyck Beech', some of which can be purple ('Dawyck Purple'), the tiny-leaved 'Rotundifolia', and the variegated 'Franken'. The foliage of Beech is typically so dense that little can grow beneath, but in autumn a beautiful show of yellows, oranges and rich-browns is provided. Weeping Beeches and some older specimens of the other varieties tend to be grafted at 2-3m. Several local trees appear to arise from 'batch planting' of several saplings to produce a larger tree more rapidly, a practice that was favoured by the Victorians in particular.

Key locations for seeing some: Normal and Copper: Leamington Spa: Jephson Gardens and Victoria Park; Abbey Fields, Kenilworth; Priory Park, Warwick; War Memorial Park, Coventry (many); Coombe Countryside Park (largest 5.54m GBH/2006, in arboretum); Bedworth Cemetery (largest 4.70m GBH/2006); Ragley Hall, Farnborough Park (many large ones, largest measured 5.09m/2006); Stoneleigh Deer Park Golf Course (largest one 5.62m/2007); Edge Hill woodlands (many mature ones along top of escarpment near Edge Hill village and also near the Water Tower at Knowle End - see the county champion cited below); Clowes Wood, near Earlswood

(many fine ones); Kenilworth Road, Coventry (the road-side spinneys here have many beech and produce a very impressive autumn show); Rock Mill Arboretum, Milverton (young planting including 'Franken', 'Rotundifolia' and several other forms). Fern/Cut-leaved Beech: Leamington: Jephson Gardens (E side) and Victoria Park (by river at W end); Solihull; Elmdon Park and Brueton Park; Coventry: two close to Copsewood Grange, Stoke (the former GEC/Marconi building and Keresley House (a large grafted tree with foliage that is part Cut-leaved grading into normal foliage); Wootton Court Spinney, Leek Wootton; Crewe Lane Arboretum, Kenilworth (a couple); Rugby: fine specimens that seem to arise from Victorian batch planting can be found in gardens along Horton Crescent and Hillmorton Road just W of Horton Crescent (latter 3.70m/2008 around base); Fillongley Hall (a fine specimen of 4.05m/1950 recorded by the Hon. Maynard Greville – still there?); Arbury Hall (a very fine one 3.00m @ 1.20m/2009 E of hall). Rohanii: Ragley Hall gardens (several). Weeping: Leamington Spa: Jephson Gardens (by Aviary Café) and 12 Eastfield Road (a very fine one 3.14m @ 1.3m/2007, viewable from Newbold Terrace East; Brueton Park, Solihull (several); Compton Wynyates (a fine one near main entrance, 2.26m GBH/2007); Broadmoor Farm, Little Wolford (see below); Arbury Hall (a very fine-looking one of 2.79m @ 1.20m/2009 E of hall; also a semi-weeping *Purpurea* of 4.19m @ 1.20m just below graft/2009 becoming 3.30m @ 2m just above graft). Dawyck Beech: Stratford Rec (riverside specimen, not especially fastigate); Kenilworth: Crewe Lane Arboretum and Kenilworth Golf Course car park (both young); Rugby (several beside Rugby School sports field at N end of Dunchurch Road, largest 2.28m GBH/2008); Talton Hall near Newbold on Avon; Ilmington village (a fairly young 'Dawyck Purple' in field immediately N of church).

Largest local specimen: Type: Edge Hill (N end of the allotments west of The Castle pub, 6.55m GBH/2007). Weeping: Little Wolford (a very broad, shapely one 3.16m @ 80cm/2007, just below graft line). Fern-leaved: Copsewood Grange, Coventry (largest specimen, close to the house is 4.46m/2008 - teste Midlands Tree Surgeons/Coventry City Council), one of the largest in Britain.

***Ficus carica* – Fig**

Source: E Mediterranean and W. Asia. Long-grown in Britain.

Distribution: Occasional in local parks and gardens, possibly more frequent in the latter than records indicate.

Further Notes: Typically trained up a wall in a sunny, sheltered location, and easily spotted by the large leaves that typically bear large roundish lobes (though these can be missing). The 'fruit' (actually a modified shoot tip) is remarkable in that it contains tiny female flowers internally that are pollinated by a tiny fig wasp that gets trapped inside the hollow centre of the fruit. The fruit takes two years to become edible.

Key locations for seeing some: Warwick County Records Office car park; Packwood House (growing against a wall); Atherstone (in the small park beside the Council offices); Warwick Castle (peacock garden); Abbey Fields, Kenilworth (in churchyard); Shakespeare Birthplace Trust garden, Stratford; Arbury Hall (on several walls in various parts of the hall complex).



The distinctive foliage of Fig (left) featuring some young fruit. Alder Buckthorn has very tidy-looking foliage and produces clusters of bright-red poisonous berries (right).

***Frangula alnus* – Alder Buckthorn**

Source: A widespread native of England and Wales. Also found as far east as Siberia and in N Africa.

Distribution: Predominating in the NW of our area, preferring damper acid soils and avoiding the lime-rich soils of the south and east. Occasionally planted within formal landscapes.

Further Notes: A rather nondescript shrub or small tree that has clusters of small, whitish flowers in late spring followed by a show of shiny, red then black poisonous berries which make it appear like a rather strange *Prunus* (but beware, the berries are poisonous). Purging Buckthorn *Rhamnus cathartica* has smaller greenish flowers, broader leaves with more curved side veins and berries that turn green then black. Both species provide the larval foodplant for the Brimstone butterfly. This species was formerly planted for charcoal production, the bright lemon-yellow wood producing particularly good charcoal for gunpowder.

Key locations for seeing some: Coughton Court (one directly NE of the walled garden); Warwick Castle (growing as a small tree near the peacock garden); Ann Hathaway's Cottage, Shottery (alongside the Shottery Brook Walk); Swift Valley Nature Reserve, Brownsover (by the southernmost lake).

***Fraxinus* – Ashes**

One of many tree groups with pinnate leaves (i.e. one leaf divided into numerous leaflets). Ashes are relatively large, deciduous trees with characteristic clusters of winged seeds called 'keys' which are unlike the fruits of any other locally found trees with pinnate leaves except Tree of Heaven *Ailanthus altissima*, which has leaves arranged alternately (opposite pairs in ashes) and distinctly shaped leaflets. Younger trees without fruit can be

difficult to distinguish from trees like hickories *Carya*, but these also have alternate leaves. The local ashes can be distinguished by details of the leaf, bud and flower structure (with very showy flowers in the manna ashes *F. ornus* and *F. mariesi*), bark and overall shape. About sixty species exist worldwide, but only Common Ash *F. excelsior* is native to Britain. At Moreton Morrell College, a fine collection of different species and forms has been developed by Brian Higginson.



Common Ash showing the pinnate leaves (left) and a bunch of 'keys' (right).

***Fraxinus angustifolia* – Narrow-leaved and Claret Ashes**

Source: W Mediterranean & N Africa, with the Claret Ash being a form recently developed in Australia. Originally introduced to Britain in 1800.

Distribution: Scattered local parks and cemeteries, though Claret Ash is being increasingly planted.

Further Notes: There are at least two forms of this tree in our area. At sites like London Road Cemetery, old specimens of classic Narrow-leaved Ash ('Lentiscifolia') are grafted onto the smaller boles of Common Ash, producing large, majestic trees with a strange-looking trunks. Elsewhere, you can find younger specimens of Claret Ash ('Raywood'), a form of Caucasian Ash, which is sometimes regarded as different species, *F. oxycarpa*. These are never grafted and produce attractive purple foliage in autumn. All of these ashes have brownish buds compared with the jet black ones of Common Ash, and much narrower leaflets that give trees a much softer texture.

Key locations for seeing some: Coventry: London Road Cemetery (several large, grafted 'Lentiscifolia' in both sectors of the Cemetery, amongst the largest in the country), Swanswell Park (a 'Lentiscifolia' at SW corner plus some quite large (probable) Claret Ashes up to 1.24m GBH/2007) at N end), Memorial Park (several medium-sized Claret Ashes); Priory Park, Warwick (a

young Claret Ash); Solihull: Brueton Park (several Claret Ashes) and Elmdon Park (a probable Claret Ash); Jephson Gardens, Leamington Spa (several young Claret Ashes near the Dormer Place entrance); Allesley Park, Coventry (Claret Ash); The Rec, Stratford (young Claret Ash); Arbury Hall (young Claret Ashes in private arboretum and burial area).

Largest local specimen: London Road Cemetery (a grafted 'Lentiscifolia' in the S sector was 3.64m below graft line @ 60cm and 4.35m above graft @ 2m /2007 but was felled by 2011; another in the N sector is 3.11m below graft @ 1m and 4.40m above graft @ 1.5m). These are amongst the largest specimens in Britain.



Two very different manifestations of Narrow-leaved Ash, a superb Victorian 'Lentiscifolia' grafted onto Common Ash at Coventry's London Road Cemetery (left) and some young Claret Ashes at Leamington's Jephson Gardens showing their fine autumn colour (right).

***Fraxinus excelsior* – Common Ash**

Source: A widespread native tree, also found in Europe and east to the Caucasus.

Distribution: Very common as a wild tree throughout our area in woods, fields and hedges. Also frequent in more formal settings such as parks and gardens, not infrequently in one of its more ornamental forms such as 'Pendula' or 'Jaspidea'.

Further Notes: One of our most familiar trees, and easily distinguished from other trees with pinnate leaves (including other ashes) by the coal-black buds. Other ashes tend to have brown buds or narrower leaflets. Var. 'Pendula' (Weeping Ash) is a form with very weeping foliage and is not uncommon in parks, gardens and churchyards. Var. 'Jaspidea' (Golden Ash) has golden-brown twigs that are conspicuous in winter. It gives a good show of yellow autumn foliage and is occasional in parks. A much scarcer form, 'Diversifolia' (Single-leaf Ash) has the pinnate leaf replaced by one large simple leaf (or

occasionally three leaflets) producing a very different-looking tree that would be hard to identify were it not for the characteristic black buds. The name 'Ash' appears to be derived from the Anglo-Saxon word for spear, 'aesc'. Trees are usually either male or female but are occasionally hermaphrodite or switch gender from one year to the next. The winged fruits ('keys') are occasionally missing in some trees that are wholly male. Ash trees are frequently coppiced, and some particularly large examples can be found in the woodland lining the top of the Edge Hill escarpment. There is also a high frequency of ash pollards in hedges of the Compton Scorpion Estate in S Warwickshire, probably of much greater age than their girths would suggest (typically 2-3m GBH).

Key locations for seeing some: The normal form can be found almost everywhere, including parks like Jephson Gardens, Leamington Spa and Priory Park, Warwick and Country Parks such as Coombe and Ryton Pools.

Weeping Ash: Bedworth Cemetery (two fine ones); Warwick: Warwick Cemetery (near chapel) and St. John's House (in the car park); Coombe Abbey Arboretum; Brueton Park, Solihull; Bancroft Garden, Stratford; Wolvey Church (a fine one 2.10m GBH/2007); Barnacle Chapel near Bulkington; Chilvers Coton Church, Nuneaton; Shuckburgh Park (a fine one beside pool E of church). **Golden Ash:** Jephson Gardens (W side near the Fern-leaved Beech; The Rec, Stratford (small one beside the river); Riversley Park, Nuneaton (a commemorative tree); Elmdon Park, Solihull (several); Rock Mill Arboretum, Milverton (young planting); Keresley House, Coventry (a couple of young ones). **Single-leaf Ash:** Brueton Park, Solihull (several, the largest 1.27m GBH/2006); Coventry: Allesley Park (a couple near Buckhold Drive) and London Road Cemetery (one, well hidden); Moreton Morrell College (one in a small collection of different ashes in spinney just W of Hall).

Largest local specimen: **Standards/Pollards:** three contenders with different growth-forms: Brailes Hill (a possible pollard with a 2m high, hollow trunk 6m GBH/2009); Shirley, Solihull (a magnificent full-crowned suburban maiden of 5.72m @ 1.10m/2008 in an alleyway behind 51-53 Newborough Road, though trunk possibly a 'twin'); Honington Hall, on W bank of R. Stour near the wier (6.90m around base/2009 but affected by a low split); Lighthorne village (a field tree just south of Wellesbourne Road, 5.71m GBH/2010 for a perfect tall trunk, self-pollarded following loss of much of upper canopy). **Pendula:** Shuckburgh Park (3.03m GBH/2007). **Coppice/multi-stemmed:** Edge Hill woodlands, S edge of wood between Sunrising and Edgehill Farm (7.0m @ base/2007).

***Fraxinus mariesii* – Chinese Flowering (Manna) Ash**

Source: Central China. Introduced into Britain by the Warwickshire plant hunter Charles Maries in 1878.

Distribution: Rare locally.

Further Notes: A very scarce species in British collections and closely resembling Manna Ash *F. ornus* (with the same masses of tiny white flowers) though the leaflets have shorter stalks. It is a slow-growing tree.

Key locations for seeing some: Hampton Lucy (Charles Maries Trail, a young one grafted onto a Common Ash in field N of school); Rock Mill Arboretum, Milverton (young planting).



Single-leaf Ash foliage at Brueton Park, Solihull (left); flowers of Manna Ash at Jephson Gardens (right).

***Fraxinus ornus* – Flowering or Manna Ash**

Source: S Europe and West Asia. Long-grown in the UK.

Distribution: Occasional in local parks and gardens, but easily overlooked as a small Common Ash when not in flower.

Further Notes: At any time of year, the rather large, pale-brown, downy buds are very different to *F. excelsior* but the leaflets are a similar shape (though with barely toothed margins) and much broader than *F. angustifolia*. The stalk connecting the leaflets is also characteristically wavy. The best character for Manna Ash once trees are sufficiently mature (which many of ours currently are not) is the dense clumps of creamy white, fragrant flowers, produced in spring and early summer. Only the very rare *F. mariesii* shares this character. The bark, if pierced, produces 'manna sugar', which is a cooking and confectionary ingredient much used in the Middle East. Most large local specimens are grafted onto *F. excelsior* bases.

Key locations for seeing some: Coventry: Coventry Cathedral (a fine one in square beside Priory Row), London Road Cemetery, Coventry (a fine one 2.74m @ 80cm, above graft line and below low forks, towards N end of Cemetery), Allesley Park (a young one); Jephson Gardens, Leamington Spa (a couple of young ones in E section); Warwick: Priory Park (a young one) and St Nicholas Park (two medium-sized ones in car park); Stratford (three in the Tesco petrol station off Birmingham Road); Compton Verney (a young one in the car park); Brueton Park, Solihull (young ones near the Parkridge Centre); Compton Wynyates (a fairly large one of 1.65m GBH/2007 on hillside N of House); Tudor Grange, Solihull (teste Gary Farmer); Arbury Hall (several young ones amongst Claret Ashes in Burial Area east of Hall).

Largest local specimen: Coventry Cathedral (3.17m @ 40cm waist above graft, below forks).

***Fraxinus pennsylvanica* – Red Ash and Green Ash**

Source: E North America. Introduced into Britain in 1783.

Distribution: Rare locally.

Further Notes: One of the ashes with brown buds. Two forms occur locally. One has the leaf stalk, underside of leaf midrib and shoots very downy and is considered typical 'Red Ash'. The other form known as 'Green Ash' has no obvious hairs on the leaves or shoots. Compared with Common Ash, the leaflets tend to be much larger and the keys are narrower.

Key locations for seeing some: Red Ash: Moreton Morrell College (one in a small collection of different ashes in spinney just W of Hall); Honington Hall (a young one of downy form); Brueton Park, Solihull (a young one of downy form beside main path near the Parkridge Centre). Green Ash: Elmdon Park, Solihull (several specimens, the largest 0.82m GBH/2007).

***Fraxinus xanthoxyloides* – Afghan Ash**

Source: The Himalayas to Afghanistan. In cultivation since 1870.

Distribution: Rare locally.

Further Notes: A small tree or large shrub with small, rounded, close-set leaflets on winged leaf stalks and brown winter buds.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Gleditsia triacanthos* - Honey Locust**

Source: Central N America. Introduced to Britain in 1700.

Distribution: Occasional in local parks and gardens.

Further Notes: A relative of False Acacia *Robinia pseudoacacia* and Pagoda Tree *Sophora japonica* (i.e. a member of the pea and bean family) and producing 'pea pods' in some years. The pinnate leaves resemble those of the other two trees, but the leaflets are smaller, narrower and shinier than *Robinia* and less pointed than *Sophora*. The flowers are relatively inconspicuous and not especially pea-like. Planted specimens are usually thornless (form 'Inermis'), though the wild form and older specimens can be viciously thorned. There is also a yellow-leaved form called 'Sunburst' resembling a dwarf *Robinia* 'Frisia' and rare purple-leaved form called 'Ruby Lace'. It can form a medium-sized tree in time, though most local specimens are young.

Key locations for seeing some: Jephson Gardens, Leamington Spa (including a fine 'Sunburst' near the large Tulip Tree in E section); Warwick Castle (a fine one near the Swamp Cypress); Solihull: Malvern Park and within the Parkridge Centre grounds, also Shirley Park; Bedworth Almshouses Quadrangle (a fine 'Sunburst'); Rock Mill Arboretum, Milverton (young planting of a scarcer, spiny form); Nuneaton town centre (outside the Town Hall, Coton Road); 'The Yews', Moreton Paddox (a normal one plus a young 'Ruby Lace'); Sherbourne Fishing Pool, near Barford (one of 1.11m GBH/2007 close to church wall); Fishponds Road, Kenilworth (one close to junction with John O' Gaunts Road).

Largest local specimen: Newnham Paddox Art Park (1.29m GBH/2007 with many thorns on the trunk).



Honey Locust foliage and flowers (left). Snowdrop Tree flowers (right).

***Griselinia littoralis* – Papauma (Broadleaf Griselinia)**

Source: New Zealand. Introduced to Britain in about 1850.

Distribution: Only a single local site known.

Further Notes: A bushy tree with twisting stems and dense apple-green foliage. The flowers are inconspicuous and rarely produce mature blue-black berries in Britain. Popular as a hedge in some parts of the world.

Key locations for seeing some: Keresley House, Coventry (a young one).

***Gymnocladus dioica* - Kentucky Coffee Tree**

Source: E and Central USA. Introduced to Britain by 1748.

Distribution: Only a couple local site currently known.

Further Notes: One of a small number of shrubby trees with double-compound leaves (i.e. large leaves divided twice to form numerous small leaflets). In this respect it most resembles Japanese Angelica Tree *Aralia elata* but lacks the spiny stems of that species and has smaller leaflets. Being a legume, it produces 'bean pods' though this is uncommon in Britain which is a bit cool for good growth. The seeds in these pods were once roasted to make a type of coffee.

Key locations for seeing some: Keresley House, Coventry (a young one); 'The Yews', Moreton Paddox (a young one). Formerly also present at Jephson Gardens, Leamington Spa, but not found in recent detailed surveys.

***Halesia carolina* – Snowdrop Tree**

Source: SE USA at lower altitudes than *H. monticola*. Introduced to Britain in 1756.

Distribution: Rare locally.

Further Notes: A large shrub or small tree at its best in spring when the branches are covered with hanging, white, bell-shaped flowers. These give rise to very distinctive fruit (four-winged bladders with a pointed 'beak' at their tip).

Key locations for seeing some: Coundon Court School, Coventry (a very fine one with a broad crown and trunk of 1.03m @ 30cm/2008 below a fork). Rock Mill Arboretum, Milverton (recent planting by D. Howells); Barton House, Barton on the Heath; Arbury Hall (a fairly mature one with four stems E of hall, and some younger ones in a shrubbery).

***Halesia monticola* – Mountain Snowdrop Tree**

Source: The mountains of SE USA. Introduced to Britain in 1897.

Distribution: Rare locally.

Further Notes: A small, spreading tree with pendant, snowdrop-like flowers produced along naked branches in May followed by distinctive pendent fruit. It has larger leaves and flowers than *H. carolina*.

Key locations for seeing some: Warwick Castle (one near the peacock garden); Rock Mill Arboretum, Milverton (a young one); Barton House, Barton on the Heath (a young one).

***Hamamelis x intermedia* – see below**

***Hamamelis mollis* etc – Witch Hazels**

Source: *H. mollis* comes from China and was introduced to Britain in about 1900. Other species that have been hybridised with *H. mollis* come from Japan and N America.

Distribution: Occasional in local parks and gardens.

Further Notes: Most easily recognised in winter when the fragrant, yellow-tassled flowers appear on the bare twigs. The shrubby growth form resembles that of the unrelated Common Hazel *Corylus avellana*, though that shrub will be producing its long creamy male catkins at the same time as *H. mollis* is in flower, making confusion unlikely. *H. x intermedia* is a cross between *H. mollis* and the Japanese *H. japonica* and var 'Jelena' has larger, more coppery-red flowers than *H. mollis* and a more vigorous, spreading habit.

Key locations for seeing some: Probable *H. mollis*: College Garden, Warwick; Wootton Court Spinney, Leek Wootton; *H. x intermedia*: Rock Mill Arboretum, Milverton (recent planting of 'Jelena' by D. Howells).

***Heptacodium miconioides* – Seven-son Flower**

Source: Zhejian province of China.

Distribution: Rare locally.

Further Notes: A large shrub or small tree related to Honeysuckle producing a fine show of delicate white flowers in late summer followed by an equally fine display of red fruit capsules.

Key locations for seeing some: Rock Mill Arboretum, Milverton (a medium-sized shrub); Barton House, Barton on the Heath (several young ones seemingly of at least two varieties).



The distinctive yellow flowers of Witch Hazel (left). Sea Buckthorn foliage and berries (right).

***Hippophae rhamnoides* – Sea-buckthorn**

Source: A native of coastal dunes along the east coast of Britain, but sometimes planted inland as an amenity shrub.

Distribution: A few local records.

Further Notes: A medium-sized to large shrub with narrow, greyish leaves rather resembling those of Willow-leaved Pear *Pyrus salicifolia*. However, by late summer the profusion of small, bright orange berries make for easy distinction. These berries are one of the best natural sources of vitamin C, and in some parts of the world are squeezed to produce a drink that tastes very much like cranberry juice. The twigs bear strong spines.

Key locations for seeing some: St Nicholas Park, Warwick (one by the brook); Ashorne Manor (some fine ones in main garden); Whichford (garden directly E of the churchyard); Wappenbury (on road verge opposite the Parish Church); Rock Mill Arboretum, Milverton (a recently planted hedge); Knowle Hill, Kenilworth (WBRC data from M. Senior, 1997 - still there?).

***Hoheria angustifolia x glabrata* – Hybrid Houhere**

Source: A cross of the two New Zealand *Houheria* species mentioned above.

Distribution: Rare locally and nationally.

Further Notes: An elegant small tree of columnar habit, with masses of small white flowers in mid- to late-summer. With age the foliage forms a spreading canopy and is very late to fall.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Ilex x altaclarensis* – Highclere Holly**

Source: A hybrid between Common Holly *I. aquifolium* and Madeira Holly *I. perado*, inheriting the much broader and less spiny leaves of the latter.

Distribution: Frequent in local gardens, parks and cemeteries but sometimes hard to separate from Common Holly.

Further Notes: Hollies with particularly large, broad leaves bearing no (or very few) spines will probably be this species, especially if you are dealing with a very large shrub or trunked specimen. The shoots tend to be rather flattened (more typically round in Common Holly). Many variants occur, and some local specimens are variegated, possibly representing 'Golden King', 'Belgica Aurea' or 'Lawsoniana'.

Key locations for seeing some: Atherstone Cemetery (some fine ones near road); Hampton Manor (some fine ones); Leek Wootton Police HQ (some at the entrance gate of the main drive); Warwick Castle; Canley Crematorium, Coventry (a variegated form, probably 'Golden King'); Leamington Spa: Victoria Park, York Walk, Jephson Gardens and Leamington Cemetery; London Road Cemetery, Coventry; Riverside Gardens, Stratford (near the Ferry); Crewe Lane Arboretum, Kenilworth (several varieties); Honington Hall (several including a 'Lawsoniana').



One of the many variegated forms of Common Holly (left). Typical foliage of Highclere Holly (right).

***Ilex aquifolium* – Common Holly**

Source: A widespread native tree extending to W. Asia.

Distribution: A familiar species of local parks, gardens and cemeteries (where it has been deliberately planted), but also a common native of our local woodlands and hedges – particularly those on the more acidic soils of the Arden.

Further Notes: Most varieties have the familiar prickly evergreen leaves, though it is possible to find some with entirely non-prickly foliage, plus a variety of variegated forms, and even forms with extra prickles on the upper

side ('Ferox'). The small clumps of whitish flowers produced in May by some specimens are highly attractive to insects. Berries are typically bright red and highly favoured by birds, but can be yellow in forms like 'Bacciflava'. Some of our less prickly hollies with larger leaves represent Highclere Hollies *I. x altaclarensis* which is a hybrid between *I. aquifolium* and Canary Holly *I. perado*. Common Holly is particularly invasive within unmanaged ancient woods of the Arden and often comes to dominate ancient Arden hedges.

Key locations for seeing some: Woodland: numerous Coventry woods, including Wainbody Wood, Tilehill Wood and Tocil Wood in Coventry; Clowes Wood, Earlswood; Ryton Wood; Rough Hill Wood, near Redditch; and Hartshill Hayes. Formal settings: Jephson Garden, Leamington Spa (various forms); London Road Cemetery, Coventry; Stoneleigh Abbey Gardens (some very fine ones); Stratford riverside between The Theatre and Holy Trinity Church; Farnborough Park (various places, largest found is along terrace walk, 2.05m GBH/2006); Birdingbury Hall, Birdingbury (a large one 2.77m @ base below a low split).

Largest local specimen: Stoneleigh Abbey, near pet's cemetery (3.03m @ 20cm below fork/2010).

***Ilex x koehneana* – Chestnut-leaf Holly (*I. aquifolium x latifolia*)**

Keresley House, Coventry - on owner's 2007 plant list, but not seen by the author.

***Juglans* – Walnuts**

Medium-sized to large trees often resembling ashes but unrelated and with the leaves arranged alternately rather than in opposite pairs. When mature, they produce fleshy round fruits that contain the characteristic, corrugated nut cases enclosing the soft, edible nuts. If in doubt, the twigs have a hollow centre, which is divided up into tiny chambers by transverse plates, a character only otherwise found in the closely related wingnuts *Pterocarya*, which have very different fruit, but not in the closely related hickories *Carya* which have similar fruit. The 15 walnut species are distributed in both North and South America and across Asia. None are native to Britain.

***Juglans nigra* - Black Walnut**

Source: E & Central USA. Long-grown in Britain.

Distribution: Occasional in local parks, larger gardens and churchyards.

Further Notes: The long, elegant pinnate leaves with pointed leaflets resemble those of a wingnut *Pterocarya*, hickory *Carya* or Tree of Heaven rather more than Common Walnut *J. regia*. At any time of the year the downy twigs and brown buds are a good clue. Manna Ash *Fraxinus ornus* has similar downy buds but leaves arranged in opposite pairs. The bark of *J. nigra* can resemble that of ash or even Turkey Oak in older specimens, but never acquires the deep, distant cracks of a mature Common Walnut. Black Walnut can produce a stunning show of autumn yellow.

Key locations for seeing some: Coombe Country Park (several, including a large one amongst the redwoods in the arboretum and two very large ones in a copse north of the visitor centre); Farnborough Park (several quite large ones by public entrance); Upton House (several large ones near café); Stratford, in front of the Courtyard Theatre, Riverside; Jephson Gardens,

Leamington Spa (medium-sized one north of the fountain lake); Priory Park, Warwick (a young one); St. Nicholas Park, Warwick (a fine one); Wootton Wawen Churchyard (one in SE corner); Compton Wynyates (an avenue of young ones alongside the main drive); Newbold Revel (a couple of young ones); Ilmington Church (two medium-sized ones beside the road).

Largest local specimens: Coombe Countryside Park (large one in the arboretum, 3.34m GBH/2006, followed by 3.18m/2006 and 2.77m/2006 specimens in the copse N of the visitor centre).



Black Walnut has elegantly pinnate foliage (left) and gives good autumn colour (right).

***Juglans regia* - Common Walnut**

Source: SE Europe to China. Wild Walnut forests still survive in central Asia, though a very long history of cultivation makes its original distribution unclear. Probably first introduced to Britain by the Romans.

Distribution: Frequent in local parks, larger gardens and occasionally as a roadside tree or within pasture.

Further Notes: A slow-growing medium-sized tree, usually developing a broad, rounded crown. The pinnate leaves have particularly large, leathery, rounded leaflets quite unlike any other local tree, and the trunk of larger trees is characteristically pale grey with very wide, deep fissures. 'Laciniata' (Cut-leaved Walnut) has the leaflets much reduced and untidily ribbon-like. The familiar nuts are hidden within a green, apple-like fruit but are not usually produced in this country until the tree is 25 years old or more. The fine-grained timber makes particularly fine furniture and veneer, and is well featured in local antique shops and locally-built Jaguar cars!

Key locations for seeing some: Charlecote Park (many of varying ages, largest one is near confluence of R. Dene and R. Avon, 3.74m GBH/2006), Temple Balsall Churchyard; Newbold Revell (near main reception c2.8m GBH/2006); Avon Dassett (pub garden); Stratford upon Avon: the Welcome

Hotel (one of 2.57m GBH/2007 in car park), and The Elms cul de sac off Maidenhead Road (a superb 'Italian Wet Walnut', 3.48m @ 1m waist/2007); Compton Verney (near the lake bridge); Bitham Hall, Avon Dassett; Stoneleigh village (behind the former petrol station); Warwick: Priory Park; Leamington Spa: Jephson Gardens; Compton Verney; Rock Mill Arboretum; The Old Rectory, Lighthorne (a fine one beside stables, 3.35m GBH/2007); Tysoe Manor, Upper Tysoe (a fine one of 3.76m GBH/2008, plus several younger ones). *Laciniata*: Barton House, Barton on the Heath (a medium-sized one adjacent to churchyard)

Largest local specimen: Wolfhampcote (a large one beside lane leading to the old church, close to the Hall, 3.93m GBH/2007, with the remains of what seems to be another large one in a field nearby).



Common Walnut has characteristic roundish leaflets (left). Some older Warwickshire trees produce copious quantities of fruit (right).

Kalopanax pictus* – the old name for *K. septemlobus

***Kalopanax septemlobus* – Castor Aralia (Prickly Castor Oil Tree)**

Source: E Asia. Introduced to Britain in 1864.

Distribution: Rare locally.

Further Notes: Typically a rather gaunt tree with leaves resembling matt green versions of Cappadocian Maple *Acer cappadocicum* or Sweet-gum *Liquidamber styraciflua*. But unlike any such tree it has thorny twigs and ivy-like fruit (it belongs to the same family as ivy). The bark is coarsely ridged. Var 'Maximowiczii' has more deeply lobed leaves than the wild form.

Key locations for seeing some: Hampton Manor, Hampton in Arden (several in woods near Craft Centre, largest 1.59m GBH); Keresley House,

Coventry a young specimen of 'Maximowiczii'); Barton House, Barton on the Heath (both forms growing alongside one-another).

***Koelreuteria paniculata* – Golden Rain Tree (Pride of India)**

Source: China, Korea & Japan. Introduced to Britain in 1763.

Distribution: Occasional in local parks and larger gardens.

Further Notes: A medium-sized, broad tree with very distinct ragged, pinnate leaves, which unfold red in late May. The large sprays of delicate yellow flowers follow in August, and give rise to large, papery fruit bladders by September. It gives a fine show of yellows and oranges in autumn.

Key locations for seeing some: Warwick: Priory Park (a fine specimen), St. Nicholas Park (a young one) and Warwick Castle (amongst the cedars); Jephson Gardens, Leamington Spa; Brueton Park, Solihull (beside car park, 1.0m GBH/2007); Moreton Hall, Moreton Morrell (a young one E of Hall); Rock Mill Arboretum, Milverton (young planting from seed obtained at Jephson Gardens); Kenilworth (in a front garden in Woodland Road); Ilmington Manor (a fairly young one); Barton House, Barton on the Heath (a young one).

Largest local specimen: Priory Park (1.02m GBH/2006).

***X Laburnocytisus adamii* – Adam's Laburnum**

Source: A hybrid of Common Laburnum and a dwarf purple broom *Cytisus purpureus* that was developed in a nursery near Paris in 1825.

Distribution: Rare locally.

Further Notes: A rather weak growing shrubby tree that displays characteristics of both parents (both in terms of foliage and flowers). The flowers include drooping spikes of normal yellow Laburnum-type flowers, mauve *Cytisus purpureus* flowers, plus yellow flowers tinged with purple.

Key locations for seeing some: Leamington Spa: Clarendon Square (NW corner, overhanging pavement). One used to grow on the south bank of the fountain pool at Jephson Gardens but was removed in about 1997. Seeds of this tree have been planted in a Lillington Garden but currently only produce yellow flowers, and may not form new Adam's Laburnums.

***Laburnum* species – Laburnums**

Source: Common Laburnum *L. anagyroides* is a native of the mountains of Central Europe and Scottish Laburnum *L. alpinum* is a native of the South Alps. Both were introduced to Britain before 1596. Voss's Laburnum *L. x watereri* is a Dutch hybrid between the two.

Distribution: Laburnums are very frequent in local parks, gardens, churchyards and sometimes on roadsides. Most local ones have not been identified to species level. Voss's Laburnum is probably the most frequent in municipal planting, especially in local parks and roadsides. Common Laburnum is more prevalent in local historic gardens and very old specimens tend to be of this species.

Further Notes: Laburnums are generally small trees with pinnate leaves comprised of just three leaflets (relatively few other trees and shrubs feature this) and hanging bunches of yellow, pea-like flowers that eventually form brown pea-pods. Common Laburnum has relatively short, but often very dense bunches of flowers that can form a stunningly bright display at their

peak and it flowers slightly earlier than Voss's. Voss's Laburnum has much longer flower bunches than either parent. The black seeds produced by Laburnums are poisonous, but part of the popularity of Voss's Laburnum, is that it produces smaller pods with fewer seeds.

Key locations for seeing some: Definite Voss's: Christchurch Garden, Leamington Spa (see below); Coombe Abbey Arboretum (1.32m GBH/2007); Stratford: Riverside Park and Stratford Cemetery; Coventry: Canley Crematorium (a fine avenue), Warwick University and various public parks; Compton Wynyates (several around the church, with Common Laburnum elsewhere to compare against). Definite Common: Compton Wynyates (some fine ones by the main entrance); Ragley Hall Gardens; Charlecote Park Gardens; Arrow Church (a large one, see below); Wasperton Village (two large pollards 2.12m @ 60cm/2007 and 2.0m @ 1m/2007 overhanging road near the village post box); Haseley Manor (several old ones, the largest 2.16m @ 1.20cm/2007); Lillington Parish Church (a fine old pollard, 1.94m @ 0.6m adjusted for lean); Weston under Wetherley (another quite old one); Woodcote House, Leek Wootton, beside lake (a very large multistemmed one of 2.30m @ 0.2m, giving rise to several stems, the largest of which is 1.65m @ 1.2m/2007). Unknown: Oversley Castle, near Wixford (about 100 specimens lining the entrance drive that runs from the church to the Castle).



The stunning flowers of a laburnum (left). In Adam's Laburnum (right) a single specimen produces both yellow and mauve flower spikes.

Largest local specimens: Common Laburnum: Arrow Church, SW corner of churchyard near the cattle grid (a solid lower trunk of c2.70m @ 0.4m/2007, adjusted for dense ivy, dividing into several stems at 1m) - probably a Common Laburnum. Voss's Laburnum: The largest definite Voss's is at

Christchurch Garden, Leamington Spa (1.83m GBH/2007) which may be the national champion.

***Laurus nobilis* – Bay**

Source: Mediterranean. Long grown in Britain.

Distribution: Recorded from a few local gardens, but possibly overlooked as few gardens have been checked.

Further Notes: Capable of forming a reasonably large tree in southern parts of Britain, but rarely more than a bush here, and often grown in large plant pots. The foliage will be familiar, as it is that which you buy for cooking (matt, oval leaves that give a familiar smell when rubbed).

Key locations for seeing some: Baddesley Clinton (NE corner of orchard); Crewe Lane Arboretum, Kenilworth; Keresley House, Coventry.

Largest local specimen: Possibly Portland Place West, Leamington Spa (about 10-12 metres high).



The familiar foliage of Bay at Baddesley Clinton (left). A magnificent blossoming specimen of Chinese Tree Privet at Barton House (right).

***Ligustrum lucidum* – Chinese Tree Privet**

Source: Central China. Introduced to Britain in 1794.

Distribution: Rare locally.

Further Notes: A large bush or bushy tree, typically with many stems. The evergreen leaves are rather bay-like in shape and arranged in opposite pairs. The tiny, highly scented whitish-yellow flowers are produced in masses from late summer into winter, and can turn a tree almost white. It can easily be mistaken for a *Euodia Tetradium daniellii* when in flower, though the leaves of *Euodia* tend to have wavy margins and it generally has a distinct trunk.

Key locations for seeing some: Barton House, Barton on the Heath (a very fine, tall specimen beside an outbuilding, with two sets of stems, the solid base of the larger set 2.0m @ base/2007, adjusted for ivy).

***Lindera obtusiloba* – Japanese Spicebush**

Source: China, Japan & Korea. Introduced to Britain in 1880 by the local plant hunter Charles Maries.

Distribution: Rare locally.

Further Notes: A medium to large shrub of erect habit. It produces greenish-yellow flowers on bare twigs in early spring and its leaves turn a rich butter-yellow with pink tints in autumn. The small berries are red then black.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Liquidambar acalycina* – Chang's Sweet Gum**

Source: Montane forests of Central & Western China. First introduced to Britain in 1980.

Distribution: Rare locally.

Further Notes: A rare tree with maple-like leaves bearing three triangular lobes (arranged alternately rather than in opposite pairs like a maple). These are bronze-purple when they emerge and also produce fine autumn colour.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Liquidambar formosana* – Chinese Sweet Gum**

Source: China & Taiwan. Introduced to Britain in 1884.

Distribution: Rare locally.

Further Notes: Foliage closely resembles Chang's Sweet Gum *L. acalycina*.

Key locations for seeing some: Barton House, Barton on the Heath (a young 'Monticola').

***Liquidambar styraciflua* – Sweet Gum**

Source: Woodlands of SE USA to Mexico. Introduced to Britain in 1681.

Distribution: Fairly frequent in local parks, cemeteries and other municipal planting schemes.

Further Notes: The rather variable foliage can resemble species like Cappadocium Maple *Acer cappadocicum* or Oriental Plane *Platanus orientalis* but the leaves are arranged alternately (opposite pairs in a maple) and the crushed foliage gives a sweet, resinous smell. It never produces the winged seeds of a maple either – the fruit are pendulous balls not unlike those of London Plane. The autumn foliage can be yellow, red, deep purple or a mixture of these, but varies between trees and is particularly intense in varieties such as 'Andrew Hewson' and 'Lane Roberts'. The tall specimen in Jephson Gardens, Leamington Spa can be particularly striking in November, producing a deep claret-red. Young specimens can also produce deeply incised leaves strikingly similar to Oriental Sweet-gum *L. orientalis* and much care is needed here. In some countries it is grown commercially for its sap, which is the source of the balsamic medicinal liquid called storax. The timber 'Satin Wood' is used in fine furniture. 'Albomarginata' also known as 'Silver King' or 'Variegata' is a slow-growing variegated form with creamy white leaf margins.

Key locations for seeing some: Jephson Gardens; Leamington Spa (several, including a tall one in the E side and a young one by the main entrance with very dissected leaves); Coombe Abbey arboretum; Priory Park

and St. Nicholas Park, Warwick (young ones); London Road Cemetery, Coventry; Stratford: Bancroft Garden near the Theatre and The Rec (young ones); Hampton Manor, Hampton in Arden (1.57m GBH/2006); Ettington Park (1.96m/2006); St Botolph's Church, Newbold, Rugby; Barton House, Barton on the Heath (young specimens of various forms including 'Andrew Hewson', 'Lane Roberts' and 'Variegata'; Keresley House Coventry (an *Albomarginata*).
Largest local specimen: the largest Jephson Gardens specimen (2.40m GBH/2006).



Two Sweet Gum specimens at Jephson Gardens (left), the taller one behind already showing fine autumn colours. The foliage can resemble Oriental Plane in some specimens (right).

***Liriodendron tulipifera* - Tulip Tree**

Source: Woodlands of Eastern N America (where it is often the tallest tree).
 Date of introduction to Britain unclear.

Distribution: Occasional in local parks, larger gardens, cemeteries and churchyards, and still used on new planting schemes.

Further Notes: The spade-shaped leaves are unmistakable, as are the yellow tulip-like flowers that appear within the canopy foliage in mid summer (but only on mature trees). The autumn foliage is an attractive yellow. Var 'Aureomarginatum' has variegated green and yellow leaves. Var 'Fastigiatum' has a narrow upright form. There is the possibility that a young specimen at Compton Verney is Chinese Tulip Tree *L. sinense* as the leaves are very strongly waisted, though foliage on young *L. tulipifera* growth can apparently look similar.

Key locations for seeing some: Farnborough Park (a very large specimen); Malvern Park, Solihull (a superb avenue alongside the main path); Jephson Gardens, Leamington Spa (a large one in the E side, 3.23m GBH/2007, another younger one beside the large Ginkgo in the W side); Coventry: London Road Cemetery (both sectors, largest in S sector 4.62m/2006 but with a bulbous lower trunk) and Allesley Park (a tall one N of the Hall); Stoneleigh

Abbey (a couple); Springfield Centre, Temple Balsall (an old one near the pool); Priory Park and Pageant Garden, Warwick (young ones); Wootton Hall, Wootton Waven (a very tall one in front of Hall, 4.68m GBH/2007); Wootton Court Spinney, Leek Wootton (2.86m/2007); Miner's Welfare Park, Bedworth (some young ones); Honington Hall (several, largest in garden 2.92m/2006, but private); Keresley House, Coventry (a fine one, 3.54m GBH/2007); Wellesbourne Hall (a fine one of 4.36m /2007, though base of trunk bulbous and crown not especially large); various local churches, including Tanworth in Arden, Aston Cantlow, Eastern Green (Coventry), Sydenham, Church End and Newbold on Avon. Aureomarginatum: Atherstone (in the small park near the council buildings off Long Street); Rock Mill Arboretum, Milverton (recent planting by D. Howells); Moreton Morrell (in a private garden near the church); Churchover Church (a young one). Fastigiatum: Arbury Hall (a group of six west of hall and another in the private arboretum, all planted c1990). **Largest local specimen:** Farnborough Park (5.26m GBH/2006 and very tall).



Tulip Tree foliage and flowers (left). The foliage of Catalina Ironwood (right) is equally unmistakable.

***Luma apiculata* – Chilean Myrtle**

Source: S Central Andes. Introduced to Britain in 1843.

Distribution: Rare locally and very rare away from southern England.

Further Notes: A large shrub or small tree with colourful cinnamon-orange peeling bark that leaves patches of white as it falls off. The leaves are small and box-like and masses of white flowers are produced in late summer. These give rise to small berries that ripen dark-purple.

Key locations for seeing some: Keresley House, Coventry - on owner's 2007 plant list, but not seen by the author. The Masters Garden at Lord Leycester Hospital, Warwick contained a fine specimen that was unfortunately killed by the harsh winter of 2010/11.

***Lyonothamnus floribundus* – Catalina Ironwood**

Source: The Channel Islands of California, with the cultivated form being subspecies *asplenifolius*.

Distribution: Only a single local specimen known and a rarity nationally.

Further Notes: A distinctive, evergreen member of the rose family (Rosaceae) with long leaves deeply divided into lobes (much resembling some *Asplenium* spleenwort ferns). It can produce a shrub or tree attaining 20 metres height. The mature bark peels off in shreds rather like a *Eucalyptus*. The white blossom peaks in May and June, with hawthorn-like masses of white flowers that individually much resemble those of Cherry Laurel (*Prunus laurocerasus*).

Key locations for seeing some: Leamington Spa (front garden of 48 Heath Terrace).

***Magnolia* – Magnolias and Cucumber Trees**

About eighty species of trees and shrubs mostly from Asia and the Americas. They are amongst the earliest flowering plants in the fossil record and all have large flowers with a primitive structure. They can be highly prized within parks and gardens, though much more work is required to identify all the local species and forms present. Barton House, Barton on the Heath has a particularly fine collection of several dozen forms or species.

***Magnolia acuminata* - Cucumber Tree**

Source: N America from Ontario to Florida. Introduced to Britain in 1736.

Distribution: Rare locally.

Further Notes: One of the largest Magnolias, capable of attaining 25 metres and very much a tree rather than a shrub. It is characterised by large, evergreen leaves (up to 22cm and shaped like a Beech), yellow-green flowers and pink-then-red erect fruit.

Key locations for seeing some: Keresley House (a very large, tall one, 2.41m GBH/2007); Caldecott Park, Rugby towards the main gate (smaller than previous specimen but still large for a Magnolia).

***Magnolia acuminata* x *M. denudata* – Magnolia ‘Elizabeth’**

Source: A cross of the N American *M. acuminata* and the Chinese *M. denudata*. Produced by the Brooklyn Botanic Garden, New York in 1978 and subsequently introduced to Britain.

Distribution: Rare locally.

Further Notes: A small, conical tree and the first yellow-flowered hybrid Magnolia to be produced. The primrose-yellow, fragrant, cup-shaped flowers open before the leaves in April or May.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Magnolia campbelli* – Campbell’s Magnolia**

Source: Himalayas to W China. Introduced to Britain in c1870.

Distribution: Rare locally.

Further Notes: A beautiful spring-flowering magnolia with large pink or white flowers (depending on the variety) that peak before the leaves emerge. It can

take 20-30 years for a specimen to start flowering, which is probably responsible for its rarity.

Key locations for seeing some: Barton House, Barton on the Heath. A Magnolia in the Rose Garden at Farnborough Park may be a Campbell's.

***Magnolia delavayi* – Chinese Evergreen Magnolia**

Source: China. Introduced to Britain in 1900.

Distribution: Rare locally, requiring warmth and shelter.

Further Notes: A large-leaved species with large leaves strikingly silver-grey beneath. It can produce a medium-sized bushy tree in time. The large yellowish flowers (slightly smaller than those of *M. grandiflora*) appear in late summer, but they open at night and each one lasts for barely a day or two.

Key locations for seeing some: Barton House, Barton on the Heath (one in secret garden).

***Magnolia denudata* – Yulan**

Source: China. Introduced to Britain in 1789.

Distribution: Probably rare locally, though many local magnolias are unchecked.

Further Notes: Resembling the frequent Saucer Magnolia *M. x soulangiana* (a hybrid of *M. denudata* and *M. liliiflora*) but always with white petals (often pink or purple-stained in the hybrid) and often forming a neater bush.

Key locations for seeing some: Crewe Lane Arboretum, Kenilworth.

***Magnolia grandiflora* – Southern Evergreen Magnolia**

Source: Coastal SE USA. Introduced to Britain in 1734.

Distribution: Occasional locally, usually in historic properties growing up a south or west-facing wall.

Further Notes: An evergreen shrub or small tree with large creamy-white flowers produced in summer and autumn. The leaves are leathery and glossy green above (rather resembling Cherry Laurel) but matt reddish-brown beneath. The leaf buds have bright red scales. Form 'Victoria' is a hardier version from British Columbia.

Key locations for seeing some: Coughton Court (beside SE corner of House); Farnborough Hall (NW corner of Hall); Stoneleigh Abbey (against S wall); Ashorne Manor (W wall); Reed Business College, Little Compton (W wall); Ragley Hall Gardens (S wall); George Elliot Memorial Garden, Nuneaton; Warwick University (in courtyard of Student's Union); Compton Wynyates (W wall); Rock Mill Arboretum, Milverton (recent planting of 'Victoria' by D. Howells); Keresley House, Coventry (a young free-standing one); Barton House, Barton on the Heath (W wall); Sherbourne Fishing Pool, near Barford (two against churchyard wall); Wolvey Church (a young, free-standing one).

***Magnolia* 'J. C. Williams' – a hybrid magnolia**

Source: A cross between Sargent's Magnolia *M. sargentiana* and Sprenger's Magnolia *M. sprengeri* (both from China).

Distribution: Rare locally.

Further Notes: This shrubby magnolia produces striking deep-red flowers in spring before the leaves emerge, and from a young age.

Key locations for seeing some: Barton House, Barton on the Heath (a young one).



Southern Evergreen Magnolia growing up a wall at Ashorne Hill Conference Centre (left).
Cucumber Tree (right) is a magnolia capable of forming a medium-sized tree.

***Magnolia sieboldii* – Oyama Magnolia**

Source: Japan. Introduced to Britain in 1865.

Distribution: Rare locally.

Further Notes: A large, wide-spreading shrub with saucer-shaped white flowers in mid-summer. These give rise to crimson fruit clusters in autumn.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Magnolia sinensis* – Chinese Magnolia**

Source: Western China. Introduced to Britain in 1908.

Distribution: Rare locally.

Further Notes: A large shrub or small tree with lemon-scented, paper-white flowers that have a red core.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells); Barton House, Barton on the Heath.

***Magnolia x soulangiana* – Saucer Magnolia**

Source: A hybrid of Yulan *M. denudata* from China and Japanese Lily-flowered Magnolia *M. liliiflora* from Japan.

Distribution: Common in parks, gardens and churchyards .

Further Notes: A large shrub or spreading tree producing large, vase-shaped flowers from late March that vary from pure white to pink or purple-stained,

and entirely deep purple in 'Black Tulip'. These first appear on bare branches, but can persist into summer within the mature foliage.

Key locations for seeing some: Jephson Gardens, Leamington Spa; Warwick: Cape Road (a fine ones facing WCC car park), St Nicholas Park and St Mary's Churchyard; Upton House (several fine ones); Coventry: War Memorial Park and Warwick University (various places); Ragley Hall Gardens; Keresley House, Coventry (several including a young 'Black Tulip').



Flowers of our two most frequent magnolias, Saucer Magnolia (left) and Star Magnolia (right).

***Magnolia stellata* – Star Magnolia**

Source: In the wild known from just two sites in Japan. Introduced to Britain in 1862.

Distribution: Widespread and frequent in local parks, gardens and occasionally in churchyards.

Further Notes: A small shrubby Magnolia, easily identified by its spring blossom. The white flowers, which are smaller than most Magnolias, have about 20 narrow petals and open widely. The small size makes it especially popular in gardens.

Key locations for seeing some: War Memorial Park, Coventry (near the sunken garden); in front gardens of various streets in Coventry, Warwick, Kenilworth and probably most other suburbs.

***Magnolia wilsonii* – Wilson's Magnolia**

Source: China. Introduced to Britain in 1908.

Distribution: Rare locally.

Further Notes: Resembling *M. sinensis*, but with narrower leaves and smaller, less fragrant flowers. It is usually a bush.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells); Keresley House, Coventry (a young one).

***Magnolia* ‘Yellow Lantern’ – a hybrid *Magnolia* ‘Yellow Lantern’**

Source: A hybrid with Cucumber Tree *M. acuminata* as one of its parents.

Distribution: Rare locally.

Further Notes: A magnolia with attractive lemon-yellow flowers that appear before the leaves emerge. It has a fairly upright (‘fastigate’) shape and defined trunk, but does not attain the height of *M. acuminata*.

Key locations for seeing some: Keresley House, Coventry (a young one).

***Malus* – Apples and Crabs**

Medium-sized fruit trees of the rose family, most closely related to pears *Pyrus* and whitebeams & rowans *Sorbus*. About thirty species occur worldwide, all within northern temperate regions, and one of these, *M. sylvestris*, is native to Britain. The attractive spring blossom turns into the familiar fruit by summer, though some of the ornamental species have tiny fruit that could easily be mistaken for cherries (though they usually still contain tiny pips arranged in chambers like a normal apple). Identification of ornamental *Malus* is quite difficult (often impossible outside of the flowering period) and complicated by the many cultivars that are available commercially. It often helps to observe specimens at different points of the year, and check details of both the flowers and the fruits.



Some ornamental apples are selected for the show of colourful fruit they produce in late summer and autumn, including ‘Golden Hornet’ (left) and Cherry Crab (right).

***Malus baccata* – Siberian Crab**

Source: NE Asia. Introduced to Britain by 1784.

Distribution: Local status unclear as relatively few ornamental crabs have been critically checked.

Further Notes: Generally a small bushy crab closely resembling the more frequent Hubei Crab *M. hupehensis*, especially with respect to the small (1cm), red, long-stalked, cherry-like fruit. But compared with *M. hupehensis*, the petals are narrower and do not overlap, there are usually 5 as opposed to 3 styles, and the leaves are typically smaller and duller. The petals are always pure white.

Key locations for seeing some: War Memorial Park Coventry (some fine ones in the golfing area); Warwick University (zone 8, teste D. Howell); possibly other trees in Stratford (the 'Rec', the Firs Gardens and riverside park), and Warwick (e.g. the Quaker's Meeting House).

***Malus bhutanica* – Cutleaf Crab**

Source: W China and the Himalayas. Introduced to Britain in 1904.

Distribution: Seemingly rare locally but very similar to Siebold's Crab *M. toringo*.

Further Notes: A shrubby crab, the variable leaves vary from quite deeply lobed, and sometimes resembling a hawthorn, to ovoid. Compared to *M. toringo*, it has less showy flowers, but larger brighter fruit.

Key locations for seeing some: Arbury Hall (in private arboretum labelled *M. toringoides* which is the old name for *bhutanica*).

***Malus domestica* (= *pumila*) – Orchard Apple**

Source: DNA studies of the Orchard apple suggest that it is essentially a long-domesticated series of varieties of *Malus sieversii*, a similar-looking wild apple that grows in the hills of central Asia, conveniently close to ancient trade routes such as the Silk Road (see Deakin, 2007). Hybridisation with other wild species appears to have been far less a factor in the creation of modern apple varieties than initially thought.

Distribution: Common in gardens and commercial orchards, the latter being concentrated in the SW of Warwickshire. Occasionally naturalised on roadsides, waste ground, churchyards and other places where pips have germinated.

Further Notes: Typically producing larger, sweeter fruit than Wild Crab *M. sylvestris*. Orchard Apple blossom is often a characteristic mixture of whites and deep pinks offset beautifully by the pale green of the new foliage, and the individual flowers tend to be larger than most other fruit trees. 'Wyken Pippin' is a famous local cultivar raised in 1703 by Lord Craven at Wyken, Coventry. Many varieties can be found growing in Warwickshire.

Key locations for seeing some: Many commercial orchards in the SW of Warwickshire; also smaller village orchards in places such as Ilmington. A good collection of labelled varieties can be found at Coughton Court and Mary Arden's House, Wilmcote. Wyken Pippin sites: Rock Mill Arboretum, Milverton; Crewe Lane Arboretum, Kenilworth (**Mary Arden's House, Wilmcote?**).

Largest local specimen: Binton Church (2.70m @ 1m/2006 below a fork).

***Malus floribunda* - Japanese Crab**

Source: Japan (probably a long-established hybrid of garden origin rather than a wild species). Introduced to Britain in 1862.

Distribution: A frequent tree of local urban streets, parks, cemeteries and larger gardens, though only really noticeable in April when it blossoms.

Further Notes: A large shrub or small tree that gives a particularly striking display of white or pink flowers with bright red buds. At their peak, the flowers almost completely obscure the young foliage. The flowers have long stalks and smaller heads than *M. domestica* or *M. sylvestris*. The leaves are small and narrow and sometimes bear lobes, though not to the extent of Siebold's Crab *M. toringo*. One of the best clues to this species in autumn are the very small (often 8mm or less) yellowish fruit on long stalks. These are smaller than most other locally-recorded *Malus* and never seem to turn red.

Key locations for seeing some: Fisherman's car park, Stratford on Avon (a fine one in the middle of the car park); Warwick: St Nicholas Church (two beside path leading to the entrance) and St Nicholas Park (one near the café); Crewe Lane Arboretum, Kenilworth; Leamington Spa: Milverton Cemetery, (some fine ones); Jephson Gardens (one near the large Cedar of Lebanon) and many of the town's streets; Brueton Park, Solihull (and Malvern Park?).

Largest local specimen: possibly the one in the fisherman's car park, Stratford.



The whitish flowers of Wild Crab (left) contrasted with those of the ornamental Purple Crab (right).

***Malus x gloriosa* – Weeping Purple Crab (see under *M. x purpurea*)**

***Malus hupehensis* – Hubei Crab**

Source: Central & W China. Introduced to Britain in 1900.

Distribution: Local status unclear as relatively few ornamental crabs have been critically checked.

Further Notes: A broad, bushy crab closely resembling Siberian Crab *M. baccata*, especially with respect to the small (1cm), red, long-stalked, cherry-

like fruit. However, compared with *M. baccata*, the petals are larger and overlap, there are usually 3 as opposed to 5 styles, and the leaves are typically larger and shinier.

Key locations for seeing some: Jephson Gardens (a labelled specimen SE of the Newbold Terrace entrance). Unconfirmed but likely ones at St Nicholas Park, Warwick (near the Banbury Road entrance) and nearby at Warwick School (three large ones along the Myton Road, the two biggest within the Headmaster's garden, overhanging Myton Road); also another at Stratford Cemetery and Barton House, Barton on the Heath (1.58m GBH/2007 and tall).

Largest local specimen: if confirmed as *M. hupehensis*, the westernmost of the two trees in the Headmaster's Garden, Warwick School (**trunk at least 2m but requires measuring**).

***Malus* 'John Downie' – a fruiting crab 'John Downie'**

Source: A hybrid developed by 1891.

Distribution: Possibly quite frequent in local parks and gardens, though many ornamental apples need to be checked.

Further Notes: Characterised by clumps of 4cm long, elongate, bright red fruit that resemble plum tomatoes. The leaves are relatively narrow.

Key locations for seeing some: Coughton Court (in the formal gardens); Warwick University (zone 8).

***Malus x moerlandsii* – *Malus* 'Profusion' (see under *M. x purpurea*)**

***Malus x purpurea* etc – Purple Crab and allied forms**

Source: A series of garden hybrids, grown in Britain since at least 1900.

Distribution: Frequent in local streets, parks, cemeteries and larger gardens.

Further Notes: Smallish trees typically with broad, untidy crowns. Most noticeable in late spring when they produce masses of deep pink-red flowers accompanied by new purplish leaves. But by mid and late summer the rather thin foliage becomes a dull green resulting in dreary trees adorned by lots of 2cm purple-black apples that retain the old sepals at their tips. In winter, the rather scaly bark and any persistent fruit allow separation from cherries and *Crataegus* thorns. There are a number of forms found locally with 'Lemoinei' seemingly the commonest. Some specimens have larger, more deeply lobed leaves on non-flowering shoots and may represent 'Eleyi'. *M. x moerlandsii* (*Malus* 'Profusion') is a cross between 'Lemoinei' and Siebold's Crab *M. toringo* that is characterised by smaller fruit (15mm), paler pink flowers and shinier leaves that mature reddish-green. Weeping Purple Crab *M. x gloriosa* also known as *Malus* 'Echtermeyer' is one of several purple crabs with strongly pendulous foliage.

Key locations for seeing some: Malvern Park, Solihull; Leamington: Leamington Cemetery, Jephson Gardens and Cloister Way (several possible 'Eleyi' at latter location); Warwick University (especially in the Westwood campus, also some 'Profusion' in zone 1 and a Weeping Purple Crab in zone 6); Coventry: Canley Crematorium (especially along 'Robinia Ave') and Green Lane South (roadside); Crewe lane Arboretum, Kenilworth ('Profusion'); Bancroft Garden, Stratford (many along N edge); Warwick: St Nicholas Park (a 'Profusion' in car park).

***Malus* 'Red Jade' – a weeping crab**

Source: Thought to be a seedling of the weeping crab apple 'Excellenz Thiel' discovered in Brooklyn Botanic Gardens, USA in 1935.

Distribution: Occasional in local parks and gardens.

Further Notes: A broad, weeping crab with bright green foliage, particularly slender leaf stalks and 15mm bright red fruit that persist in large numbers well into winter.

Key locations for seeing some: Brueton and Malvern Parks, Solihull (a couple in each); Crewe Lane Arboretum, Kenilworth; Alderminster Church; Talton House near Newbold on Stour (a medium-sized one in front of the house); Mill Road, Leamington Spa (a couple in front of flats near entrance to Mill Gardens).

***Malus x robusta* – Cherry-crab**

Source: A group of hybrids involving Siberian Crab *M. baccata* and Plum-leaved Crab *M. prunifolia*.

Distribution: Local status unclear as many ornamental crabs have not been critically checked.

Further Notes: This crab has 3-4cm fruit, which can resemble large cherries, and rather narrow leaves. The blossom is white with red buds. It can form a quite large shrub in time. There are a number of varieties including 'Red Sentinal' which has masses of deep red, glossy fruits that persist well into winter.

Key locations for seeing some: Warwick University (several 'Red Sentinal' in zone 6); Coughton Court (a young one near the orchard).

***Malus sylvestris* – Wild Crab (Crab Apple)**

Source: A widespread native also found widely in Europe.

Distribution: Widespread in our area, particularly within woods and hedgerows and along water courses, though never in the abundance of species such as Common Hawthorn or Blackthorn. Most conspicuous in the spring when in blossom, or in autumn when its yellow fruit carpet the ground.

Further Notes: A large shrub or small tree very closely resembling Orchard Apple but generally with smaller leaves and fruit. Flowers are usually white and specimens with pinkish petals may Orchard Apples in unusual locations. The fruit is noticeably smaller than most Orchard Apples and typically mature to yellow without reddish markings – and they remain tart even when fully ripe. Location is often one of the best clues you have a Crab, because Orchard Apples are rarely found in ancient woods or old hedgerows. Crab Apples grow very slowly and veterans may not be particularly large. Two with a planting date of 1825 exist in an exposed part Shuckburgh Park. The larger has a girth of 2.59m GBH around a trunk which is hollow and has split. The smaller has a girth of just 1.50m, despite nearly two centuries of growth.

Key locations for seeing some: Brandon Marsh (in many of the hedges of the reserve); woods such as Hampton Wood, Brandon Wood, Ryton Wood, Wappenbury Wood and Hartshill Hayes; farmland E of Southam (many in the valley bottom parallel to the A425, very noticeable when in blossom).

Largest local specimen: near Ashorne Manor (an ancient formerly layed hedgerow tree at field/woodland boundary S of Hall, two large trunks, 2.54m & 2.69m GBH/2006 connected to each other by a low branch).

***Malus toringo* – Siebold’s Crab**

Source: Japan. Introduced to Britain in 1856.

Distribution: Rare locally.

Further Notes: A strange crab with leaves that vary from unlobed and oval to quite strongly lobed and more maple-like (particularly some specimens of Amur Maple). The fruit are small (8-10mm) and bright yellow.

Key locations for seeing some: Lighthorne village (one at junction of Wellesbourne Lane and The Bank amongst other *Malus*); Commainge Close, Warwick (near Sainsburys, a young specimen beside pavement). The leaves of both these specimens are predominantly lobed. A specimen at Coughton Court (beside the Swamp Cypress) has a similar mixture of lobed and unlobed leaves but is clearly something different and has larger, redder fruit.

***Malus transitoria* – a wild apple**

Source: NW China. Introduced to Britain in 1911.

Distribution: Rare locally.

Further Notes: A slender small tree with creamy-white, slightly fragrant flowers in May followed by small round yellow fruits and beautiful autumn colour. The leaves are 3 to 5 lobed and toothed, resembling those of a hawthorn, but not as large and maple-like as *M. trilobata*.

Key locations for seeing some: Rock Mill Arboretum, Milverton (recent planting by D. Howells).

***Malus trilobata* – Maple-leafed Crab**

Source: NE Greece to Israel. Very rare in the wild. Introduced to Britain in 1877.

Distribution: Only a single local specimen known.

Further Notes: “A strange-looking field maple with blossom and fruits like a crab apple” is the perfect description of this unusual fruit tree. It was once classified as a *Crataegus* thorn, but even though it is now classified as an apple, the flesh of the fruit has the gritty texture associated with pears and the bark is also pear-like. It is a missing link of the fruit tree world! The Warwick specimen produces flowers in mid May amongst the fully formed foliage and gives a fine show of red and purple foliage in November. *M. transitoria* also has lobed leaves but not to the extent of *M. trilobata*.

Key locations for seeing some: Warwick, at south end of Barrack Street near The Globe pub (0.97m GBH/2007).

***Malus tschonoskii* – Pillar Apple**

Source: Japan, where very rare in the wild. Introduced to Britain in 1897.

Distribution: Possibly quite frequent in local parks and gardens, though many ornamental apples need to be checked and from a distance it can easily be overlooked as a fastigiate cherry.

Further Notes: A very ‘fastigiate’ (narrow and upright) apple with smooth grey bark (unusual for a *Malus*) and large, leathery leaves grey-felted below. The fruit is about 25mm wide, usually greenish and purple.

Key locations for seeing some: Crewe Lane Arboretum, Kenilworth; Priory Park, Warwick (a couple) **and Brook Street check**; Warwick University (several places); Jephson Gardens, Leamington Spa (**size**); probably the fastigiate apples at Newbold Revel north of the main buildings.



Two of the more distinctive *Malus* leaf types, Maple-leaved Crab (left) showing its fine autumn colour, and Pillar Apple (right) featuring the grey-downy texture that characterises new foliage.

***Malus x zumi* ‘Golden Hornet’ – ‘Golden Hornet’ crab**

Source: A hybrid developed in 1949.

Distribution: Possibly quite frequent in local parks and gardens, though many ornamental apples need to be checked.

Further Notes: Characterised by masses of 20mm bright yellow fruit that produce one of the finest fruiting displays of any *Malus*. The fruit can persist well into winter.

Key locations for seeing some: Priory Park, Warwick (E end towards the Coventry Road entrance); Jephson Gardens, Leamington Spa (E side near the Fern-leaved Beech); Crewe Lane Arboretum, Kenilworth; Coughton Court orchard.

***Mespilus germanica* - Medlar**

Source: SE Europe and Asia Minor, introduced into Britain in pre-Norman times for its fruit.

Distribution: Occasional in local parks and gardens.

Further Notes: A close relative of the ‘thorns’ *Crataegus* (and sometimes grafted on to hawthorn), but with solitary flowers, long narrow leaves and larger 3-4cm greenish-brown berries that resembles small apples but with a very conspicuous ‘hole’ at their tips. Typically a large, broad shrub rather than a tree. The fruit needs to be over-ripe before it is palatable, being rather astringent and powdery before then. Beware the hybrid with Midland Hawthorn (Medlar-thorn X *Crataemespilus grandiflora*) which has similar but smaller fruit and smaller leaves.

Key locations for seeing some: Stratford: Riverside Gardens (facing the public toilets off Southern Lane) and Shakespeare’s Birthplace garden (several, largest 70cm @ 1m/2007); Brueton Park, Solihull (numerous

specimens); Quaker's Meeting House, Warwick (rear garden); Coughton Court (in orchard), Baddesley Clinton (near orchard); Bourton Hall (several mature trunked ones, the largest 1.0m GBH/2008).

Largest local specimen: possibly the one in the garden Warwick's Quaker's Meeting House (1.04m @ 1m/2007).



Ripe fruit of Medlar (left) and White Mulberry (right).

***Michelia doltsopa* – Michelia**

Source: E Himalayas to W China. Introduced to Britain in about 1908.

Distribution: Only a single local site known.

Further Notes: A close relative of the magnolias, but with flowers that appear on older branches not at the shoot tips. The flowers are 10cm across, creamy-white and appear from rusty, downy buds in early spring. The evergreen leaves are glossy above and silver-bloomed beneath.

Key locations for seeing some: Keresley House, Coventry (a young one).

***Morus* – Mulberrys**

Small trees related to figs *Ficus* with raspberry or blackberry-like fruit and milky sap. Twelve species exist worldwide and two have been planted very widely beyond their natural range.

***Morus alba* - White Mulberry**

Source: China via Europe, being introduced to Britain about 400 years ago.

Distribution: Scarce locally, occurring in the occasional garden, park and cemetery.

Further Notes: Much less common than Black Mulberry *M. nigra*, as it tends not to grow so well in Britain. It produces similar raspberry-like fruit (which can ripen white or pink), and the leaf shape is similarly variable, but with a smooth, glossy upper surface. This is the mulberry used for rearing silkworms

(caterpillars of a large moth) – so its value is considerable. ‘Laciniata’ has strongly lobed leaves. ‘Pendula’ is weeping.

Key locations for seeing some: Coombe Abbey Arboretum (next to a Black Mulberry), College Garden and the adjacent St Marys Churchyard, Warwick (one in each); Shakespeare Birthplace Trust garden (with some Black Mulberries nearby); Crewe Lane Arboretum, Kenilworth (a ‘Laciniata’); Ashorne Manor (beside main drive); Middleton Hall (in orchard); Sherbourne Fishing Pool, near Barford (a ‘Pendula’).

***Morus nigra* - Black Mulberry**

Source: Probably W. Asia but cultivated more widely for many centuries. Apparently introduced to Britain in the sixteenth century and widely planted in the mistaken belief that it was the foodplant of silkworms (which is actually White Mulberry *M. alba*).

Distribution: Occasional in local parks and gardens, particularly historic gardens in Stratford on Avon.

Further Notes: The blackberry-like fruit, which are edible in late summer, is often the first clue that you have a mulberry. This species can be distinguished from *M. alba* by the much rougher bark, typically heart-shaped leaves with duller upper surfaces, and darker fruit. Older trees often become highly distorted with branches reaching the ground or propped up by wooden supports, though such trees are apparently less ancient than they look (often less than 150 years old). The concentration of old trees in the Stratford area is partly said to result from the planting of cuttings taken from a tree chopped down by the infamous Reverend Gaskill at New Place (once the home of Shakespeare and his wife) in c1760. The tree he destroyed was apparently planted by Shakespeare when he first moved in, and attracted too much attention for the Reverend’s liking. He eventually demolished the house itself! Other parts of the tree were used for fine woodcarving, some of which is displayed by the Shakespeare Birthplace Trust.

Key locations for seeing some: Stratford: gardens of Hall’s Croft (claimed by some to be a 1760 specimen), New Place (several, one very large and multistemmed with a girth of 1.95m @ 30cm/2007, another 1760 specimen?) and Shakespeare’s Birthplace (a fine one 1.68m @ 50cm/2007); Coombe Abbey Arboretum (next to a White Mulberry, 1.34m GBH/2006); Jephson Gardens, Leamington Spa (E of the Glass House, 1.56m GBH/2006); Pageant Garden, Warwick (a tall one by main entrance); Spon Street, Coventry (rear of no 21); Charlecote Park (a couple of very old ones N of the hedged garden); Stoneleigh Abbey (an old one in the resident’s car park); Compton Verney (close to the giant Cedar of Lebanon, 1.50m/2006); Wootton Court Spinney, Leek Wootton; Coughton Court (in formal gardens), Ashorne Manor; Wroxall Abbey (beside chapel, 1.80m/2006); Birdingbury Hall (two old ones, the largest 1.78m GBH/2007 adjusted for leaning trunk); Wasperton Farm, near Barford (an old one of 2.22m @ 30cm/2007, formerly with a very spreading crown); Bilton, Rugby (a magnificent specimen in garden of the Old Rectory, viewable from the churchyard said to be several centuries old, basal girth of 2.60m/2008 soon splitting into four branches, the largest of which is 1.45m at base).

Largest local specimen: In terms of overall size, probably the multistemmed specimen in the Great Garden of New Place, Stratford. In terms of trunk girth,

the Spon End specimen has a stool girth of 4.33m/2005 (teste R. Penlington) which gives rise to about a dozen stems. One collapsed stem had 150 growth rings, suggesting the base is several centuries old.



Black Mulberry foliage and fruit (left) and a prostrate specimen at Charlecote Park (right).

***Morus rubra* – Red Mulberry**

Source: Eastern USA.

Distribution: Only a single local site known.

Further Notes: The wild form has variably lobed leaves resembling our more familiar *M. nigra* and *M. alba*. But the single specimen recorded locally is of the form 'Platanifolia' and has leaves with three pointed lobes that more closely resemble some of the snake-bark maples such as *A. pensylvanicum*.

Key locations for seeing some: Barton House, Barton on the Heath (one in secret garden).