



Owen Johnson

Euonymus lucidus shines out at Overbecks above Salcombe in Devon with its golden, early summer foliage

Half-hardy trees in Britain and Ireland – part two

In the second of two articles summarising his recent survey, OWEN JOHNSON discusses species from damp climates that do better in western parts of the British Isles

IN THE FIRST of these two articles (Johnson 2007) on half-hardy trees I outlined the background to my recent survey and discussed hardiness. That article covered garden-worthy species from dry climates that need long, hot summers to thrive. Those species, on the whole, are more likely to die in the British winter because previous summers were too cool or damp for them.

However, most of the species which happen to find their limit of hardiness in Britain and Ireland come from rainy places, and are more prone to be fatally weakened by summer drought or dry winds.

These species are discussed in this article. Trees from the southern Andes or New Zealand are used to year-round wet; others, for example from southeast China or Florida, expect a hot but humid growing season, even if the winters are dry.

The mildest parts of Britain are fortuitously some of the wettest, but it is unlikely that global warming will make the east more suitable for moisture-loving tender trees: higher temperatures may trigger higher rainfall, but will reduce the average humidity more drastically, especially through summer. Even trees from wet but warm places seem, in Britain, generally to prefer moist but cool summers over warm but dry ones. Southwest England, the coasts of Wales and western Scotland, and cities like Liverpool and Glasgow, along with much of Ireland, will typically remain the best places to try these species.

Asia

Most of the trees from the vast, broad-leaved evergreen communities of south and east Asia are unlikely to get beyond a few collectors' gardens: even to experts, they can look very like one other, and the delights of their dark, shining foliage are a little recondite. Among those of quite exceptional glamour, *Eriobotrya deflexa* is a straight young 5m tree at Tregrehan, Cornwall, and seems happy in Nigel Muir's front garden in Chichester, Sussex, and at Buckingham Palace, London. It is related to *E. japonica*, the fruiting loquat, but its elegant leaves have boldly scalloped margins and emerge deep red. *Magnolia nitida*, seen as an old tree (to 9m) only at Caerhays Castle, Cornwall, and certainly tender, has highly-polished foliage flushing maroon, among which the parchment-white flowers nestle in spring. *Euonymus lucidus* is an



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Spring-flowering *Magnolia nitida* (left) is rare in British gardens but it thrives at Caerhays, Cornwall (right)



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Keith Rushforth / FLPA

Evergreen *Acer laevigatum* (right) forms a respectable tree (left) at Trewithen in Cornwall

exceptional Himalayan spindle (sometimes grown as *E. fimbriatus*) whose glossy leaves unfold ruby-red and stay golden in some apparently healthy specimens. Its flowers are also unusually large. It is 13m x 44cm at Killiow near Truro, Cornwall, and there are good trees as far east as Sidbury Manor in east Devon and Rosel Manor on Jersey, but it is hard to obtain.

The supporting cast of Asiatic broad-leaved evergreens being so big, selections are hard to make. Chinese forms of *Acer oblongum* are the most tolerant of several maples which, characteristically, look more like

unrelated members of the community than they do like other *Acer*; this is 13m at Royal Botanic Gardens, Kew, and used as a street tree in California. *Acer laevigatum* is a glamorous 17m x 38cm at Trewithen, Cornwall, and 9m as far east as the Sir Harold Hillier Gardens, Hampshire.

Tiny scales give the underleaves of *Castanopsis cuspidata* an expensive-looking bronze sheen. It is largest at Trewidden, Cornwall, but quite luxuriant at Nymans and Borde Hill, both in Sussex. Among young introductions in Cornwall, *C. delavayi* and *C. orthacantha* both promise well. ➤

Lithocarpus pachyphyllus, with four big examples at Caerhays Castle, Cornwall, may be the most handsome of its huge genus. Its softly olive-green leaves are silvery beneath and boldly corrugated; none of these trees have retrenched and early pruning could presumably sort out any tendency to bushiness.

Lithocarpus cleistocarpa at Caerhays is also gloomily magnificent, though two big ones have died back badly. However, in an avenue across a field at Stanage Park, Powys, hardly a mild place, a healthy tree was 13m x 50cm in 1995. *Lithocarpus henryi*, similarly long-leaved and elegant, is 11m x 44cm at Caerhays and a bushy but happy 9m at the Sir Harold Hillier Gardens. The tougher *L. edulis* is a straight 16m tree at Wakehurst Place, Sussex, but more often remains a less than spectacular bush. *Lithocarpus kawakamii* may be the most promising of the newer introductions in Cornwall.

Cinnamomum camphora is Japan's largest tree and a giant ornamental in many subtropical places, but is disappointing in Britain. *Cinnamomum glanduliferum*, which has the same deep red flush to its aromatic foliage, is 9m at Ventnor Botanic Garden, Isle of Wight, and may be a better prospect; *C. sieboldii*, with curious three-veined little leaves, was an unexpected find in 2006 as a very slender old 11m tree at Embley Park near Romsey, Hampshire. Also among the *Lauraceae*, *Neolitsea sericea* is especially graceful in its silver leaf-backs. It thrives at Penrhyn Castle on the north coast of Wales and is fairly happy at Peasmarsh Place, a dry spot near Rye, Sussex. Giant-leaved *Lindera megaphylla* is not quite as refined but undoubtedly tough, having reached 13m x 59cm at Borde Hill, Sussex, and 10m at Kew. *Persea ichangensis*, another long-leaved aristocrat, grows well at Wakehurst



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Michelia doltsopa may survive further east than its usual haunts in Devon, Cornwall and Ireland suggest



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Rehderodendron macrocarpum is probably hardier and more drought-tolerant than normally assumed



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Cupressus cashmeriana at Pylewell Park, Hampshire, is a good height but it exceeds 20m in western gardens

Place and slowly but contentedly at chilly Batsford Park, Gloucestershire.

Of the many broad-leaved Asiatic evergreens which combine elegant foliage with showy blossom, *Michelia doltsopa* is pre-eminent. It is scarcely tried east of Torbay in Cornwall, but Maurice Foster's 7m tree, sheltered by the White House farmhouse at 160m near Sevenoaks, Kent, ought to give easterly gardeners hope. The biggest michelias of all (at Caerhays, unsurprisingly, and to 20m) are now believed to be the similar *M. floribunda*; *M. sinensis* and *M. velutina* also seem set in Cornwall to make especially handsome trees. *Manglietia insignis* - a

monumental 17m x 96cm at Caerhays - is less showy in flower but at least as handsome year-round: its leaves are smaller, aromatic, and flush deep red. At Exbury Gardens, Hampshire, it is happy though less exuberant; a young one at Aberglasney, in inland Carmarthenshire, was struggling against frost damage in 2005. *Manglietia bookeri*, known only by one handsome big tree at Caerhays, is 15m x 56cm.

Schima wallichii, with *Camellia*-like blossom, can also make an imposing tree: subsp. *wallichii* var. *khasiana* is 20m x 70cm at Trewithen, Cornwall, and, in Scotland, has reached 11m at Logan House. *Photinia nussia*, a varia-

ble species with a wide distribution, recalls a more refined *P. x fraseri*, and is 7m at East Bergholt Place in Suffolk. A shock in 2006 was to find it as a giant tree, 23m x 66cm, in a highly favoured microclimate at West Porlock House under Exmoor. *Craibiodendron yunnanense*, 8m at Caerhays and already flowering at Chyverton, Cornwall, is another highly desirable evergreen of recent introduction. *Gordonia yunnanensis* is eye-catching at Tregrehan for its long glossy leaves and vigorous growth.

Half-hardy east Asian deciduous trees are generally more drought-tolerant. *Rebderodendron macrocarpum* from Mount Omei, China, is seen as an elegant, *Styrax*-like specimen, to 14m, in the south-west, but thrives at the Sir Harold Hillier Gardens and could surely be grown more widely. *Aesculus assamica*, with a more easterly wild distribution than *A. indica*, is unexpectedly a fine tree at Kew (13m x 47cm in 2001).

The reputation for delicacy inherited by three outstanding oriental conifers also seems undeserved. The one old *Cupressus cashmeriana* in the east, 9m x 29cm in Greenwich Park, London, in 2001, is little advertisement for this most exquisite cypress, but younger plantings are thriving as far north as Brockhole by Windermere, Cumbria, and in places as dry and frosty as Wilton House near Salisbury, Wiltshire. *Taiwaniana cryptomerioides*, similarly, is now doing well at Cambridge University Botanic Garden and Crathes Castle on Deeside.

Glyptostrobus pensilis from south China makes an interesting variant on *Taxodium distichum*. The one old tree at Dunloe Castle in Co Kerry was 9m x 30cm in 2002 but died shortly afterwards. It probably prefers warm summers and there are good young spires, by water, at the Val de la Mare Arboretum on Jersey, the University of Surrey campus at ➤

Guildford and, most unexpectedly, Wolverhampton's West Park (8m x 19cm in 2004) in the West Midlands.

Europe

Clethra arborea from Madeira is the most spectacular survivor from the broad-leaved evergreen communities of pre-Ice Age Europe, which are now almost confined to the Atlantic islands. Large trees to 20m are known only from Tresco and coastal gardens in Cork and Kerry, but a 10-year-old plant at Buckingham Palace, London, is surprisingly happy, flowering regularly.

Arbutus canariensis, notable for its big pink flower-heads, seems equally home so far at Buckingham Palace and Lamorran House, Cornwall.

South America

The tree flora of the southern Andes is full of eccentrics, some highly gardenworthy and all enjoying high rainfall. None is more desirable than *Luma apiculata* (syn. *Myrtus luma*) with its tissue-paper, orange-and-white striped bark, neat blackish crown, and masses of scented blossom in late summer. It self-seeds prolifically but, in small gardens, is only really frequent in Penzance, Cornwall, and Guernsey. In Ireland and Cornwall it can reach 17m; further east it is hardy but tends to remain stunted. However, a good young 6m tree at Feeringbury Manor in rural Essex, and a tall bush in the Lord Leycester Hospital Garden in Warwickshire, might inspire more experimentation.

Amomyrtus luma seems about as tolerant. Flowering at rhododendron time and subtler in its peeling bark, it has scarcely been tried outside Cornwall but is a worthy tree. *Blepharocalyx cruckshanksii*, another orange-barked myrtle, thrives to date at Tregrehan, Cornwall.

Drimys winteri, a large and magnif-



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Luma apiculata reveals its bark as a tall specimen

icent flowering tree in the far west, has reached tree-size widely enough to be worth trying almost anywhere: it was 12m at Howick Hall in Northumberland in 1991, 5m at Peasholm Glen in Scarborough, Yorkshire, in 2004, a good 8m at Broadleas, Wiltshire, in 2005, and 10m at Bunhill Fields in London in 2001 (this has since died). *Embothrium coccineum*, again, can earn its place in most gardens: one of the best, 16m x 38cm in 2002, was on a development site in Sevenoaks, Kent, and it flowers bravely in Aberdeen's Seaton



Keith Rushforth / FLPA

Weinmannia trichosperma, a Chilean member of the *Cunoniaceae*, has white flowers followed by red fruit

Park in northeast Scotland.

Polylepis australis, as shaggy as a sheep, is one of the quirkiest, and toughest, Andean trees. It is 7m x 23cm at Calderstones Park in Liverpool, and 4m in the Dundee University Botanic Garden.

Laurelia sempervirens, resembling a giant *Laurus nobilis*, is gloriously glossy and deliciously aromatic. A robust form from Comber 592 seed has reached 10m x 44cm (2007) in an open spot at Nymans, Sussex. It has been suggested that the weeping trees that attain 20m further west are actually *Laureliopsis philippiana*; these luxuriate as far north as Muncaster Castle in Cumbria and east to Pylewell Park, Hampshire.

Weinmannia trichosperma, a 16m tree in Ireland, is worth growing well east for its bottlebrush flowers and delightful finely-cut foliage. It is a 5m bush at Wakehurst Place, Sussex, but needs regular watering further east.

Gevuina avellana, luxuriant and memorable in foliage if hopelessly sprawling, is almost exclusive to the wettest western gardens; I know of no good plants east of Coletton Fishacre, Devon. *Lomatia ferruginea* is another cloud-forest plant with unforgettable foliage which seems very dependent on high humidity,

New Zealand broad-leaved trees

The flora of New Zealand and its satellite islands, like the Andes, is full of botanical oddballs. *Pseudopanax* are renowned for their gamut of foliage phases; *P. crassifolius*, a glorious tree, seems happy in dry gardens, including Burgess Park in London (at the 'sword-leaved' stage) and in Southend, Essex, where one has reached its pinnate 'third stage' after 15 years. *P. arboreus* and *P. ferox* are also handsome in Southend, although taller in the west.

Plagianthus regius is a pretty tree with frothy masses of creamy-white spring blossom and delicate, birch-like foliage. It luxuriates in the west and the largest, about 16m x 97cm, is well north at Islay House. In 1961, however, it was 9m x 38cm at Hillier's old Chandlers Ford nursery and it has flourished for some years in rural Essex. *Dodonaea viscosa*, widespread across the south Pacific, is sometimes grown in favoured gardens for its cultivar 'Purpurea', whose purple leaves offset the stringy rufous bark. Often bushy, it is a straight young 6m tree at Tregrehan. *Fuchsia excorticata* is a tree grown (only in the mildest gardens) not for its flowers but its brilliant golden-red exfoliating bark.

The nine old *Metrosideros excelsa* at Tresco Abbey Gardens are astonishing. Their boles, fantastically overlain with aerial roots, are up to 223cm thick; in high summer, their huge billowing crowns turn scarlet and are visible from far out to sea. They weathered the frost of 1987 and are so wind-firm and salt-tolerant that Mr Dorrien-Smith considered in retrospect that they should have been used for the garden's shelterbelt. In 2002, Aubrey Fennell found an 8.5m tree in flower at Castle Mary, Co Cork; at Lamorran House, Cornwall, the larger of two young plants (3.5m) already flowers well, but attempts to grow it elsewhere ➤



Garry Dunlop

Embotrium coccineum, a highly desirable Andean tree, tends to be longer lived in western gardens. This specimen, representative of the more floriferous Longifolium Group, is in Northern Ireland

though it is 4m at Wakehurst Place. A splendid 8m bush grows unexpectedly in Greenock Cemetery, west of Glasgow.

North America

Evergreen oaks predominate in the mountains of Mexico; most are newcomers to British gardens. *Quercus rhysophylla* with big rugose leaves has excelled at Royal Botanic Gardens, Kew, and is becoming better known; *Q. crassifolia*, a large-leaved tree of earlier introduction, is also good at Kew. *Quercus durifolia* is particularly elegant and is growing fairly well at the Sir Harold Hillier Gardens and better at Bute Park, Cardiff's astonishing municipal arboretum. At Tregrehan, *Q. candicans* and *Q. treleaseana* (syn. *Q. major*) have both grown quickly to 10m and impress for the shocking reds and pinks of their young growths.

Of the many Mexican pines with

silky hanging needles, *Pinus patula* has deservedly grown popular, thriving at Kew but somewhat stressed in the Cambridge University Botanic Garden. The obscure variant of the *P. montezumae* complex in many older gardens, with vast sweep's-brushes of blue foliage, is spectacular and very tough; more typical forms, with long green drooping needles, are also cynosures but have yet to prove themselves widely.

Magnolia macrophylla from the southern US is hardy, but needs shelter for its enormous leaves and never develops a stature to match them. Unexpectedly, the Mexican subsp. *dealbata* is 13m after 26 years at Chyverton, Cornwall, and could be a superior prospect. The Chinese *M. rostrata* is equally imposing as a foliage plant, managing 20m at Sidbury Manor, Devon, and a metre a year at Tregrehan, Cornwall, but does little in the east.



E. Crichton / Garden World Images



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The flowers (left) borne by the large trees of *Metrosideros excelsa* at Tresco Abbey Gardens are visible far out to sea. Tender when young, the mature trees on Tresco (right) survived the -7.3°C frost of 1987

have ended in grief. It could, perhaps, be tried in favoured spots in inner London. *Metrosideros robusta* was 14m at Ludgvan Rectory, Cornwall, when cold killed it in 1938; currently old trees (to 10m) are known only on Tresco. *Metrosideros umbellata* is hardier, thriving at Logan Botanic Garden in western Scotland, and there are several to 14m in Ireland.

Two New Zealand tree ferns in particular are more glamorous, though more finicky, than the popular Australian *Dicksonia*. *Cyathea medullaris*, with huge black-stemmed leaves from a slim stem, has grown quite rapidly to 3m at Chapel Knap near Porlock, Somerset. *Cyathea dealbata*, whose fronds are pure silver if you turn them over, is only known as a big tree from Rossdohan Island, Co Kerry, though a good established plant at Sausmarez Manor on Guernsey is 1m to the bud. In Essex it has withstood at least -5°C but needs constant watering.

New Zealand conifers

The New Zealand flora also includes some unforgettable conifers. *Agathis australis*, the kauri pine, is unlikely ever to achieve its wild stature in Europe, but the thick glaucous leaves are themselves interesting. Thirteen

established but spindly trees are known in Ireland, the largest 15m x 32cm at Ilnacullin, Co Cork. At Tresco (where *A. robusta* from Queensland is also 12m) the old tree withstood -7°C in 1987 but blew down in 1990; a 1985 planting is already 8m x 16cm. On the English mainland, a 6m plant at Trevarno, Cornwall, is the only well-established example found.

Podocarpus totara is a better prospect. Most of the trees recorded 70 years ago in Cornwall and Ireland survive, and promise to grow big; 19m x 117cm at Heligan, Cornwall, is the best so far. Totaras thrive as far

north as Inverewe but, as the foliage is not particularly exciting, a struggling example is a sorry sight, and this is seldom a tree to try in the east. That said, the biggest 'Aureus' (8m x 32cm) grows in Swindon's Queens Park in Wiltshire and puzzled me no end, until I found that it had done its growing in a since-demolished hothouse.

Araucaria heterophylla is so spectacular – like a green plastic pagoda – that gardeners will always try it. It experiences no frosts in its native Norfolk Island, and scarcely tolerates them: the famous tree at Tresco was 25m x 74cm when the 1987 winter frazzled it. Replacements are 10m already. An old tree in the coastal gardens of Cork or Kerry might have excelled, but for whatever reason there are none (it was 3m at Earlscliffe near Dublin and at Glanleam on Valentia Island, Co Kerry, by 2001). Two saplings at Lamorran House, Cornwall, are promising, and it might do well in favoured gardens in central London; elsewhere in England, experiencing some frost each winter, odd plants survive but are little ornament.

Dacrycarpus dacrydioides in youth is exceptionally graceful, an airy spire of bronzed, heather-like foliage. One



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Cyathea dealbata, a tree fern with silver undersides to the leaves, at Sausmarez Manor, Guernsey



Two conifers with contrasting outlines: *Araucaria heterophylla* at Tresco Abbey Gardens, Isles of Scilly, and *Podocarpus totara* at Tregrehan Garden, Cornwall

such is 8m x 14cm at Cotehele, Cornwall, not an exceptionally mild garden, yet no old trees have ever been recorded. *Dacrydium cupressinum* has reached 18m at Innacullin, Co Cork, but in Britain is also known only by young, or severely stunted, plants. *Lagarostrobos franklinii*, from Tasmania and arguably the world's longest-lived tree, is a more robust weeping conifer, an old one in woodland shelter at Crathes Castle, Deeside, being as handsome as any.

REFERENCE

Johnson, O (2007) Half-hardy trees in Britain and Ireland – part one. *The Plantsman* n.s. 6(3): 162–169

Another beautiful but tricky New Zealander is *Libocedrus plumosa*, with its vivid, remarkably fern-like foliage. It is 8.5m at Castlewellan, Northern Ireland, while a 1918 planting at Bodnant, north Wales, survived to reach 5.5m by 1981. A 3m sapling at Tregrehan, Cornwall, is the only other recent record.

The regular, spleenwort-like sprays of the type of *Phyllocladus trichomanoides* make it the most handsome of this curious Antipodean genus with broad phyllodes; it was 12m x 41cm at Fota, Co Cork, by 2002. At Casa di Sole near Salcombe, Devon, it is a slender 9m spire; further east, a poor bush.

Conclusion

When planting a tree it seems natural to look into a long and uncertain future and err on the side of caution. Today, consequently, we enjoy fewer specimens of these beautiful 'tender' species than perhaps we should.

I think we owe it to the next generation to view any potential climate change, in the garden, not as a threat but as an opportunity.

OWEN JOHNSON has measured 50,000 trees and written *The Collins Tree Guide* and other books