

A journey into the genus *Magnolia*

John Grimshaw

Magnolia is one of those genera I've always enjoyed and admired, without possessing any specially deep knowledge of it. That changed between 2004-2009 while I was working on the book *New Trees, Recent Introductions to Cultivation*, sponsored by the International Dendrology Society and published by the Royal Botanic Gardens, Kew, in 2009. This book, co-authored by Ross Bayton, describes more than 800 trees introduced to cultivation in recent decades, or not covered by the standard encyclopaedia *Bean's Trees and Shrubs Hardy in the British Isles*. For each species we provide a botanical description and a 'horticultural commentary' discussing its performance in cultivation in the United Kingdom, Europe and North America.

It soon became apparent that there were a lot of magnoliaceous trees to cover, being grown under a diversity of generic names – *Alcimandra*, *Michelia*, *Manglietia*, *Manglietiastrum*, *Parakmeria*, *Tsoongiodendron*. Despite the persistence of Chinese botanists in using these generic concepts, we took the decision to follow the Western view that all are members of the genus *Magnolia*. The rapidity of acceptance of this view, at least in the West, has been remarkable, but is undoubtedly due to the prompt acceptance of the position by the Magnolia Society International, and its promotion by Dick Figlar. *New Trees* was prepared during the period of what may be called this Figlarian revolution in *Magnolia* taxonomy and it was interesting to watch the process of people accepting the new names. There was very little resistance, presumably because it makes intuitive sense.

As with all name changes it takes a while to get used to the actuality, even though one is perfectly reconciled to the new name – just like thinking of a female friend by her maiden name long after she has got married – so it is not surprising that people still talk about *Michelia* this or *Manglietia* that. Neither does it seem very wrong to me to use the sectional names in an English form – *michelias*, or *manglietias*, for example, as they convey a concept of habit and cultivation requirements that is usefully informative. It would, however, be undesirably confusing if formal English names were invented that incorporated old generic names: Maud's *Magnolia* would be preferable to Maud's *Michelia*, for example.

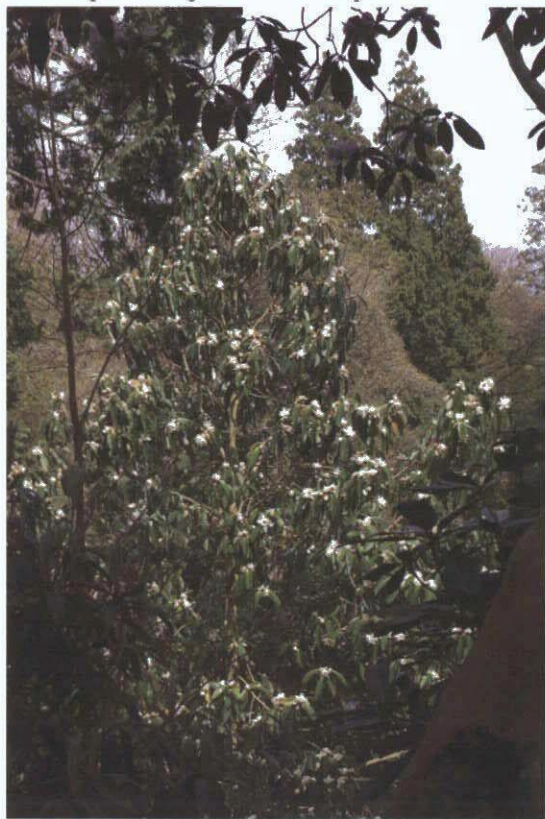
When I started work on *New Trees* my knowledge of non-traditional magnolias was minimal. While living in Holland I had once bought a small potted *Magnolia figo* for the sake of a few hours of scent – it is not a good houseplant – and I was aware of semi-mythical *michelias* deep in Cornish valleys. It was soon evident that *Magnolia* was going to be one of the major genera in the book: we eventually covered the genus with thirty-eight

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separate entries. Only four of these (*M. amoena*, *M. biondii*, *M. cylindrica*, *M. zenii*) are members of Section *Yulania*, and only two are American (*M. macrophylla* var. *dealbata*, *M. tamaulipana*): the rest were Asian evergreen species. These are the principal subject of discussion in this article.

The biggest problem in compiling horticulturally-useful information, such as growth habit and requirements in cultivation, for species covered in *New Trees* was that the majority of recently introduced magnolias, especially the evergreens, are still scarce in gardens and represented mostly by young plants; the naming of some will only be confirmed when they come into flower, perhaps after several more years. Thus, the information gleaned about them is in many ways a snapshot of an experiment in progress.

The exciting thing, of course, is that the experiment *is* in progress. The past three decades, since China opened up to Western plant hunters in 1980, has seen a flood of introductions of all kind of plants that at least equals the 'golden age' of plant hunting in the early twentieth century. It is interesting to speculate why the earlier generation of plant collectors did not introduce more Asian evergreen magnolias: was it only because they were assumed to be tender, and ignored because the collecting effort took place at higher altitudes or latitudes? The success in Cornwall or California of a few species should perhaps have triggered an interest, but it is probable that by the time they had reached maturity the opportunity for collecting more material had diminished. Perhaps, too, the fabled mildness



A vigorous young specimen of *Magnolia doltsopa* growing at Tregrehan, Cornwall.

of Cornwall meant that it was assumed by British gardeners that they couldn't possibly grow further east. Species established in the British Isles from earlier collections, mostly made, it seems, by George Forrest, include *Magnolia insignis* (including specimens formerly known as *Manglietia hookeri*) and two members of Section *Michelia*, *M. doltsopa* and *M. floribunda*.



First introduced by George Forrest in 1918, this *Magnolia doltsopa* has a proven track-record in southern England as a floriferous tree.

All have achieved 20 m at Caerhays Castle in Cornwall – an example that should have alerted gardeners to their possibilities earlier.

We live in an age of experimental gardening. People are very keen to push the boundaries and to see what is possible, rather than assuming it is impossible. No doubt the casualty rate is very high, but that makes successes all the sweeter. On the other hand, mere survival is not really enough – one wants to see a plant actually thriving. Most Asian evergreen magnolias come from rather low altitudes in comparatively southern latitudes, so it is not surprising that they are potentially hardy only in the mildest parts of both North America and western Europe. This is effectively the coastal strip of the Pacific Northwest, broadening away from the coast in California; the south-eastern United States, including the milder parts of USDA Zone 7 northwards to about Washington DC; and the coastal fringes of Europe, including the Mediterranean basin and southern



Experimentation with new introductions inevitably leads to casualties: an unhappy *Magnolia martinii* at Wisley, 2010.

England (USDA Zone 9 on the strength of winter minima, but with a far cooler summer than Zone 9 in North America). Within this area there will be wide differences in the species that are growable in any given locality, and the diversity possible dwindles northwards and further inland. The parameters for growth vary with each species, but include their requirements for summer heat, susceptibility to winter cold, and the proportion

of sunshine and shade tolerated in different locations. It is the balance of these, and other specific requirements, that will determine the success of a species in any location.

Consider, for example, the case of *Magnolia maudiae* (section *Michelia*). This showy species has the potential, in the right conditions, to be the most spectacular of the michelias. It flourishes on both the west coast and in the southeastern United States, tolerating temperatures down to -18°C in Vancouver, and flowers spectacularly in early spring. It is winter-hardy in southern England, too, but here summer temperatures are evidently too cool for really successful growth. This becomes particularly apparent in even mild winters following a cool summer, when plants are apt to be defoliated at even moderate temperatures below freezing (-6°C in Kevin Hughes's experience in Wiltshire). It tolerates full sun in Portland, Oregon, and should evidently be given a site with maximum exposure to warmth in areas with cooler climates – so long as there is ample moisture in summer. As an early-flowering species, shelter from spring frost is also needed, but this should not be confused with shade. In Portland, where frosts usually cease by early February, freeze damage to the flowers is much less of a problem. On balance, I feel that this beautiful tree is unlikely to be a regular success in most of southern England, on the grounds of poor summer growth and regularly damaged flowers.

Shade is important for many evergreen species when grown in the hottest and brightest areas, at least when young. The large leaves produced by vigorously growing young plants are easily scorched and for many of the larger-growing species it would seem best to plant them in woodland understory and let them grow up into the canopy as they would in the wild. This is the case at Tregrehan in Cornwall, where Tom Hudson has planted numerous species as understory to large mature trees, generally with great success – there are few places in England where it is possible to see such a wide range of species growing so well. The potential stature of some species is surprising, though this is in part conditioned by familiarity with suburban yulanias: 20 m for *M. grandiflora* or *M. campbellii* in the wild is perfectly normal, but several members of Section *Manglietia* reach 30–40 m. Among those in cultivation are the Critically Endangered *M. dandyi* (syn. *M. megaphylla*) and *M. sinica*, although neither is very hardy. *M. dandyi* has amazingly beautiful leaves, like a very superior *Ficus*, dark green and glossy above, with sumptuous reddish-brown hairs below. The leaves of some other species, such as *M. grandis*, are attractively glaucous below, while the new flush of growth on some evergreen magnolias can be bronzed or even red (especially in *M. lotungensis*).

Although members of Section *Michelia* are typically shorter in stature, *M. foveolata*, also with very handsome foliage and flowers, can reach 45 m in

the wild. It seems to be hardy in the 'michelia zone', but has been slow-growing in cultivation so far. Conversely, one of the smallest species, *M. laevifolia*, is vigorous, floriferous and about the hardiest – the evergreen equivalent of *M. stellata*. It can be spectacular in flower, with its slender shoots wreathed in blossoms, but I enjoy it as much for its beautiful darkly-hairy buds, visible from autumn onwards. While writing *New Trees* we had to follow the paper chase as its name changed from *Michelia yunnanensis* to *Magnolia dianica* and finally to *M. laevifolia*, the sort of taxonomic sequence that seriously irritates gardeners.

M. laevifolia is the one recently introduced species I can envisage as a popular 'garden center plant', being easily produced to flowering size in a 3-litre pot. Most of the others, with the possible exception of the hybrid *M. ×foggii* (*M. figo* × *M. dolt-sopa*), are likely to remain the preserve of discerning gardeners and specialist nurseries. Despite their comparative novelty (most species have been introduced only since 1990) several good collections have been established, and the plants' potential for landscape use is being explored; *M. maudiae* as a street tree in Portland, Oregon, and both *M. laevifolia* and *M. ×foggii* have been considered suitable for use as hedging. There is considerable potential for hybridization and selection of superior clones, and numerous species remain to be introduced from Asia.



Magnolia laevifolia is a superb shrub or small tree, easily grown and tolerant of a wide range of conditions. This specimen is at Tregrehan, Cornwall.

Discoveries continue to be made: only last year a new species from northern Vietnam was described as *Manglietia sapaensis* (Xia & Vu, 2010). Despite growing close to well-trodden paths on the mountains near the town of Sapa, including the well-collected Fan Si Pan, it had been largely overlooked – but not entirely. It turns out that one of the unidentified taxa growing at Tregrehan is this species, and seed has been collected by Nick Macer that will enable it to be much more widely planted; with glaucous undersides to the broad leaves it makes an attractive specimen even without flowering. To enable it to be legitimately discussed as *Magnolia sapaensis*,



M. laevifolia 'Copperstop' at Cistus Nursery, Portland, Oregon.

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the taxonomic combination required is made here.

Magnolia sapaensis (N.H. Xia & Q.N. Vu) Grimshaw & Macer comb. nov.

Manglietia sapaensis N.H. Xia & Q.N. Vu, *Nordic J. Bot.* 28(3): 295 (294 - 297; fig. 1-2). 2010.
Holotypus: Vietnam, Lao Cai Province, Sa Pa District, Hoang Lien National Park, 2275 m,
Nam 080805, 5 August 2008 (VNF).

Delving into the realm of recent *Magnolia* introductions has been fascinating, and I am looking forward to watching many trees grow towards maturity over the next few decades.



Sean Hogan of Cistus Nursery standing on a street in Portland, Oregon, with *Magnolia maudiae* in the background.