# A note on *Magnolia*, mainly of sections *Manglietia* and *Michelia* subgenus *Magnolia* (Magnoliaceae)

A note of caution concerning the ultimate heights that may be achieved in cultivation by numerous of the newer evergreen magnolias from Asia, is the theme of this article by **CHRIS CALLAGHAN** and **S. K. PNG** of the Australian Bicentennial Arboretum (ABA).

Following Thomas Methuen-Campbell's interesting report in the 2011 *IDS Yearbook* concerning the study weekend held in June of that year at RHS Wisley, Surrey, to discuss "summer" flowering magnolias (see Endnote), the authors thought they should write to mention an important consideration before contemplating planting of these trees in gardens, or indeed any tree in a garden, particularly the average small garden.

We are not sure if the ultimate size of many of these magnolias was discussed with those attending the study weekend, since most of their maximum known heights were not mentioned in the article. However, we believe any readers tempted by the article to purchase and plant out most of the evergreen magnolias featured (previously in the genera *Manglietia*, *Michelia* or *Parakmeria*) in a normal suburban front or backyard in relatively warm, sheltered, near frost-free areas, will be ultimately dismayed by the sizes they reach (see Figlar 2009 for reasons behind the reduction of genera). Even allowing that these predominantly warm-temperate to sub-tropical forest trees may not achieve their maximum potential sizes in the milder regions of temperate Europe, most are still likely to overtop (and overshadow!) two or three storey homes or apartments, especially with a warming climate.

One of the authors experienced this first-hand when having to decapitate a *Michelia doltsopa* (now *Magnolia doltsopa*) that had overtopped his own twostorey home, located in a cool region of Australia, in less than a decade! Most horticultural books the authors consulted give a maximum height of *ca*. 10 m (to 18 m Hilliers, 1993) for this *Michelia* which is known to achieve 30 m in the wild and is adorned with noticeably fragrant white flowers.

Of the 21 species featured in the above-mentioned article under "Recent Magnoliaceae introductions", only four have a maximum height in the wild of 16 m or less, nine achieve 20 m, three reach 25 or 28 m, another two reach 30 m, and one each attain 40 m, 45 m and even 50 m! (refer to Table 1 on page 49 for examples). Also, there is no information on their ultimate canopy spread in any literature we have so far sighted, but for most it is likely to be substantial when they are not forced skywards in competition with their forest companions. Gardeners on average sized town or suburban blocks need to be aware of their potential ultimate dimensions if they don't desire plants capable of swamping everything else in the garden, and even the house itself!

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The growth rate mentioned in the 2011 Yearbook article for four of these evergreen magnolias planted at Tregrehan, Cornwall, in southwest England, is indicative of the heights they are capable of reaching in the milder areas of the British Isles and elsewhere. *Magnolia* aff. *chevalieri* of Vietnamese provenance is noted as being very vigorous and putting on approximately 1 m of growth a year since it was planted at Tregrehan in 2006. *M. chingii* (now *M. conifera* var. *chingii*), is said to have reached 6 m in only 11 years, *M. floribunda* had reached 8 m after 14 years and *M. lanuginosa* planted in 1996 was 10 to 12 m at the time of the 2011 study day. This last plant, formerly known as *Michelia velutina* or *Michelia lanuginosa*, is said to reach 15 to 20 m in the wild, so this height is either understated, or else the tree at Tregrehan is set to exceed the height of the wild trees.

Interestingly, *Magnolia sapaensis* mentioned in the 2011 article to have by then reached 10 m at Tregrehan, was reported elsewhere (Anon. 2011) to have only been discovered the previous year by Vietnamese and Chinese botanists at 2,275 metres in the Hoang Lien National Park, Northern Vietnam, and named *Manglietia sapaensis* that same year (Vu & Xia 2010). Nick Macer (Macer 2011), relates how in November 2009, he had found an at the time unidentified magnolia growing at around 2,200 to 2,400 metres on a northern slope of a nearby peak in the environs of Mount Fan Si Pan, Hoang Lien National Park, and goes on to mention that there were unnamed specimens planted at Tregrehan in 1999 and 2000. This means that *Magnolia sapaensis* is another evergreen magnolia capable of averaging around 1 m growth per year in height in the milder areas of Britain and elsewhere.

It is apparent that after slow growth during the initial few years at the seedling stage, that these evergreen magnolias at Tregrehan are just now getting into their stride and that a number of the other species whose planting dates were not mentioned will soon accelerate and not be far behind.

Checking *The Plant Locator, Western Region* (Hill & Narizny 2004) for the US, reveals that besides three *Manglietia* and eight *Michelia* species listed in Table 1, where they are indicated with an asterisk, there were at least a further four *Manglietia* and a further six of the larger *Michelia* species available in the nursery trade in America a decade ago, a good proportion originating from southern China or SE Asia. These, under their present names in the genus *Magnolia* and with their distribution and maximum heights in brackets, included the four previously in *Manglieta*, namely *Magnolia aromatica* (China, Vietnam, 30 m.), *M. insignis* (China, N. Myanmar, Nepal, NE India, 30 m), *M. megaphylla* (now *M. dandyi*, China, 40 m) and *M. ovoidea* (SW China, 10 m), plus the six previously in *Michelia*, namely *Magnolia* × *alba* (or white jade orchid tree, a hybrid between *M. champaca* and *M. montana* from Java, Indonesia, and long cultivated in China and SE Asia, where its fragrant flowers are used to perfume homes, 25 m), *M. champaca* (China, Vietnam, 30 m), *M. doltsopa* (China,

N. Myanmar, NE India, Bhutan, Nepal, 20 to 30 m), *M. macclurei* (China, Vietnam, 30 m) and *M. figo var. skinneriana* (China 15 m–listed in *The Plant Locator* as *Michelia skinneriana*). A smaller number of these species are also available from specialist nurseries in Australia and New Zealand.

The substantial heights of these newer mentioned introductions coupled



This photograph of *Magnolia foveolata* (formerly *Michelia*) gives some idea of the size that the larger species of evergreen magnolias are capable of achieving, and this is not the largest!

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with their evergreen nature (except the anomalous former *Manglietia decidua* in Table 1, below), means that they will in future years shut out winter sun from the home or neighbour's home and ultimately in the case of some, you may need binoculars to appreciate the beautiful flowers. Hence most of those mentioned are only useful in large landscape gardens, botanical gardens, arboreta or parklands, where with necessary shelter most would be an undoubted asset.

The reported maximum heights of these trees is considerably greater than a handful of smaller species or their cultivars of the genus *Michelia*, now subsumed under *Magnolia*, that have been justifiably popular with owners of small and large gardens for some years now.

Current Accepted Name [for other symbols – see end	Previous Name <sup>†</sup>	Native Region	Height	DBH
Magnolia cathcartii <sup>‡</sup> (J. D. Hooker & Thomson) Nooteboom Alcimandra cathcartii <sup>†</sup> (J. D. Hooker & Thomson) Dandy		China (SE. to SW. Yunnan, SE. to S. Xizang), Bhutan, Sikkim, NE India, Vietnam, Myanmar	25-50 m	to 60+cm
Michelia cavaleriei Finet & Gagnepain NW. Gi Also listed as Michelia fallax * in The Plant Locator NE. & S (a synonym). Hunan,		<b>China</b> (Fujian, Guangdong, NW. Guangxi, NE. & S. Guizhou, Hunan, Hubei, SE. Sichuan, SE. Yunnan)	10-20 m	to 50 cm
Magnolia cavaleriei var. platypetala (HandMazz.) Noot. Michelia cavaleriei var. platypetala <sup>†</sup> (HandMazz.) N. H. Xia Listed as Michelia platypetala <sup>*</sup> in The Plant Locator (now a synonym). Magnolia platypetala <sup>‡</sup> (an incorrect name)		China (E. Guangdong, SW. Hunan, W. Hubei, NE. Guangxi, E. Guizhou)	to 20 m	to 50 cm
Magnolia chevalieri (Dand Manglietia chevaliei†Dan Magnolia aff. chevalieri‡	, ,	N. Laos, Vietnam	10-20 m	to 50 cm?
Magnolia conifera var. chingii (Dandy) V. S. Kumar (This taxon is a synonym for Magnolia conifera Dandy in Flora of China)       China (N. & SW. Guangdong, C. & E. Guangxi, SE. Guizhou, SE. Yunna N. Vietnam         Magnolia chingii †* Dandy       N. Vietnam		(N. & SW. Guangdong, C. & E. Guangxi, SE. Guizhou, SE. Yunnan),	to 28 m	to 55 cm

# Table 1. Recent UK introductions of evergreen magnolias

Current Previous Name <sup>†</sup> Accepted Name [for other symbols – see end of table]	Native Region	Height	DBH
Magnolia decidua‡ (Q. Y. Zheng) V. S. Kumar Manglietia decidua† Q. Y. Zheng	<b>China</b> (Jiangxi)	to 15 m	to 45 cm
Magnolia ernestii‡Figlar Michelia wilsonii†* Finet & Gagnepain	<b>China</b> (Guizhou, Jiangxi, Hubei, Sichuan)	20-25 m	to 40 cm
Magnolia floribunda‡ (Finet et Gagnepain) Figlar Michelia floribunda <sup>†*</sup> Finet & Gagnepain	China (Guizhou, Guangxi, W. Hubei, Sichuan, Yunnan), Myanmar, Thailand	20-30 m	to 100 cm
Magnolia foveolata <sup>‡</sup> (Merrill ex Dandy) Figlar Michelia foveolata <sup>†*</sup> Merrill ex Dandy Also listed as Michelia fulgens <sup>*</sup> in The Plant Locator (a synonym in Flora of China).	China (Jiangxi, Guangdong, Hainan, W. Hubei, S. Hunan, S. Guangxi, SE. Guizhou, SE. Yunnan), N. Vietnam	30-45 m	80-95 cm
Magnolia fulva <sup>‡</sup> (H. T. Chang & B. L. Chen) Figlar Michelia fulva <sup>†</sup> H. T. Chang & B. L. Chen	China (Yunnan), N. Vietnam	to 16 m	to 50 cm
Magnolia grandis‡ (Hu & W. C. Cheng) Kumar Manglietia grandis†* Hu & W. C. Cheng	<b>China</b> (SW. Guangxi, SE. Yunnan) <b>N. Vietnam</b>	12–20 m	to 35 cm
Magnolia kwangtungensis <sup>‡</sup> Merrill Manglietia kwangtungensis <sup>†</sup> (Merrill) Dandy Listed as Manglietia moto <sup>*</sup> in The Plant Locator (a synonym in Flora of China).	<b>China</b> (Guangdong, S. Fujian, S. Hunan, W. Guangxi, SE. Yunnan)	to 20 m	to 60 cm
Magnolia lotungensis <sup>‡</sup> Chun & C. H. Tsoong Parakmeria lotungensis <sup>†</sup> (Chun & C. H. Tsoong) Y. W. Law [section Gynopodium of subgenus Gynopodium]	China (Hainan, Guangdong, S. Zhejiang, N. & W. Fujian, S. Jiangxi, W. & SW. Hunan, SE. Guizhou)	to 30 m	to 90 cm
Magnolia martini H. Léveillé Michelia martini <sup>†</sup> (H. Léveillé) Finet & Gagnepain ex H. Léveillé Magnolia bodineri <sup>‡</sup> (an incorrect name)	China (Guangdong, S. Henan, W. Hubei, Guangxi, Guizhou, C. & S. Sichuan, NE. Yunnan), Vietnam	to 20 m	to 50 cm
Magnolia maudiae‡(Dunn) Figlar Michelia maudiae <sup>†</sup> * Dunn	China (Hong Kong, Fujian, S. Zhejiang, Guangdong, Jiangxi, Hainan, Hunan, Guangxi, Guizhou)	to 20 m	to 60 cm

Current Accepted Name [for other symbols – see end	Previous Name <sup>+</sup>	Native Region	Height	DBH
· /	-	NL Martine and	10+ m	to 30 cm
<b>Magnolia sapaensis</b> ‡ (N. H. Xia & Q. N. Vu) Grimshaw & Macer		<b>N. Vietnam</b> (Hoang Lien National Park)	10+ m	to 30 cm
Manglietia sapaensis† N	I. H. Xia & Q. N. Vu			
Magnolia yunnanensis‡ Parakmeria yunnanensis	( )	<b>China</b> (N. Guangxi, SE. Yunnan), <b>Vietnam</b> .	to 40 m	to 100 cm
[section Gynopodium of				
Magnolia yuyuanensis‡ ( (This taxon is a synonym fordiana (Oliver) Hu in F Manglietia yuyuanensis†	for <b>Magnolia fordiana var.</b> Iora of China)	<b>China</b> (Anhui, S. Zhejiang, Jiangxi, Fujian, N. Guangdong, Hunan)	l 5-25 m (-30 m)	to 45+ cm

# Key to symbols

- † Previous name
- \* Names of plants at Tregrehan in Cornwall, SW England (as listed in Methuen-Campbell 2012).
- \* Plants listed for northern America (Hill & Narizny 2004), additional to those mentioned in present article.

Other information sourced from the literature (Chen & Nooteboom 1993, Liu 2004, Xia et al. 2008, Grimshaw & Bayton 2009, Vu & Xia 2010). Refer to *Flora of China* for other synonyms.

These older introduced species of *Michelia*, named for the seventeenth century Italian botanist Pietro Antonio Micheli and now in the genus *Magnolia*, include the purple-pink flowered *Michelia figo*, long known as the 'Port Wine Magnolia' and a true magnolia in name at last, with a dark flowered cultivar '**Purple Queen'** and a cream flowered selection 'Lady of the Night', both reported to grow to around 6 m, as is the precocious cultivar 'Silver Cloud' of the large 20 to 30 m forest tree *M. doltsopa*, the cultivar flowering in only a few years from planting. Bean (1973) described *M. figo* as "a cheerful evergreen, not conspicuous for beauty of flower, but one of the most fragrant of all shrubs-two or three blooms will fill a small greenhouse with their fruity perfume", and Palmer (1994) recommended planting one near a bedroom window to enjoy the fruity fragrance, which is especially noticeable in the evenings.

The former *Michelia yunnanensis* Franchet ex Finet & Gagnepain which the present authors consider to have been validly and legitimately named in *Magnolia* as *M. dianica* Sima & Figlar (Sima 2001)\* before being unnecessarily transferred under *Magnolia laevifolia* Nooteboom in 2007 (which name should have been applied solely to *Michelia laevifolia* Law & Y. F. Wu which is in a



The fragrant white flowers of *Magnolia elegantifolia*, previously described as *Michelia elegans*. Growing to 5 metres, it is suitable for smaller gardens.

different taxonomic section under *Michelia*), has had a number of more recent cultivars named since its introduction, including 'Copperstop', 'Dali Velvet', 'Inspiration', 'Michelle', 'Mini Mouse', 'Snow Angel', 'Summer Snowflake', 'Warm Fuzzies' and 'Willowleaf' in America, 'Paradise Perfection', 'Scented Pearl' and 'White Caviar' (a hybrid with *M. figo*) in Australia, plus 'Gail's Favourite', 'Honey Velvet', 'The Oracle' and 'Velvet and Cream' in New Zealand. Also from New Zealand comes 'Bubbles', 'Mixed up Miss' and 'Touch of Pink', being hybrids between *M. doltsopa* and *M. figo*, as is the American raised 'Allspice', named for its large white flowers having the delightful fragrance of allspice, and possibly the New Zealand bred 'Snow Flurry'. (\*see also comments by Tony Rodd (2010), a previous horticultural botanist at The Royal Botanic Gardens, Sydney, regarding the changed name for *Michelia yunnanensis*).

From China, the country of origin of the parents and apparently not yet available elsewhere, are the recently released cultivars **'Danxin Hanxiao'**, **'Qinfang Hanxiao'** and **'Yujin Hanxiao'**, all described as evergreen bushes with many red fragrant flowers and selected from a hybrid population between *Michelia yunnanensis* and *M. crassipes*. The Kunming Institute of Botany, Yunnan, have artificially hybridized and evaluated for 15 years the new cultivars **'Yunxia'**, **'Yunxin'** and **'Yunxing'**, apparently hybrids between *Michelia yunnanensis* and *M. maudiae*, as was the natural hybrid **'Yunrui'**. They are described as having high ornamental value and have either white or golden-coloured flowers.

Three new cultivars of unknown parentage (to the present authors) released by New Zealand breeder Mark Jury during 2013 are the aptly named 'Fairy Blush' with lilac-pink fragrant flowers, the strongly fragrant 'Fairy Cream' and the fragrant pure white 'Fairy White', the last from the

**Right**, Formerly in the genus *Manglietia*, the handsome terminal flowers of *Magnolia kaifui* from southern Yunnan are borne on a small tree up to 10 m high.

(The flower colour is nearer pure white in full light).

Magnolia concinna is a small tree of 4-6 metres from Yunnan, China, with pale yellowish flowers described in 2008 in the genus *Michelia*.

Jury 'Snow Flurry' series and said to grow to around 5 m and be a hardier selection with *Michelia doltsopa* parentage. Most of these previously mentioned cultivars can be viewed with additional information, on the internet, often under the former name *Michelia yunnanensis* in the case of the non-hybrids, and are suitable for small to medium city and suburban gardens or courtyards. Many may as yet be only available in their country of origin.

Since it is not the purpose of this article to put readers off planting further representative species of these beautiful trees, the authors would like to take this opportunity to recommend some equally beautiful evergreen specimens of the recently created *Magnolia* Sections *Michelia* or *Manglietia*, that are appropriate for today's smaller home gardens in mild, relatively frost free areas. Even here some will require careful positioning to avoid blocking the warming rays of the winter sun, obstructing paths



and driveways, shutting out views from the house and generally taking over the garden at the expense of smaller plants. Protection is needed from harsh winds and being evergreen they are liable to breakage in snow storms.

Many of the following, mostly relatively recent described species, have fragrant flowers and most have yet to be introduced, but all share the hallmarks of being promising introductions of interest to those with small gardens. After the following brief introductions, readers may refer to Table 2, opposite for a tabulation of these smaller species.

Starting with those in the former genus Manglietia, in which the flowers are terminal as in the traditional Magnolia, there is Magnolia crassipes, a small tree with fragrant white flowers described in 1982 from Dayao Shan, Guangxi. Next is *M. duclouxii* growing to 6 m with large blush purplishred flowers and M. glaucifolia from Guizhou, described in 1986 as having 9 to 18 cm narrowly elliptic leaves glaucous beneath with attractive slightly fragrant white flowers. Described in Manglietia just three years ago in 2011 is Magnolia kaifui which occurs in Mount Huanglianshan Nature Reserve in southern Yunnan and bears beautiful, slightly fragrant, large white flowers as shown in the accompanying photo. The last of these relatively small former Manglietia is Magnolia rufibarbata occurring from SE Yunnan and across the border into North Vietnam. This has large, beautiful creamy white flowers with greenish outermost tepals and a central column of yellow stigmas surrounded by red stamens and with the undersides of the leaves reddish villose. It was described as far back as 1928, but to our knowledge has yet to be introduced.

Moving on to those previously in the genus *Michelia*, in which the flowers occur on short shoots growing from the axils of the leaves along the branches, there is *Magnolia angustioblonga* growing to 4 m with quite small fragrant white flowers, described in 1986 from its only occurrence near Libo, Guizhou Province, China, and the twice as high *M. calcicola* described in 1988 as having fragrant yellow flowers with leaves appressed villose on both surfaces when young. Slightly taller at 10 m is *M. compressa* var. *lanyuensis* with fragrant white flowers, described only in 2000 and endemic to Orchid Island (Lanyu) off the southeastern tip of Taiwan, where it grows at about 500 metres above the Pacific Ocean. *M. concinna*, a small tree 4-6 m tall with pale yellow flowers 5.5 cm or more across is another recently described species suitable for small gardens. Growing 2-5 m tall is *Magnolia figo* var. *crassipes*, first described in 1985 as *Michelia crassipes* and with its very fragrant purplish-red axillary flowers not to be confused with the previously described *Manglietia crassipes*, now that they have their more obviously different names under *Magnolia*.

*Magnolia elegantifolia,* formerly known as *Michelia elegans*, has very elegant scented white flowers with a boss of golden stamens, the leaves densely brown pubescent beneath. Cultivated in South China Botanical Garden, Guangzhou, Guangdong, where the holotype was collected in 1988, it has been postulated

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to be a hybrid, with *M. cavaleriei* from southwestern China and Guangdong as one parent. However it has subsequently been found to occur naturally in open fields in Zhejiang Province, two provinces to the north of Guangdong Province, so a bit of a mystery? Occurring at Yingde, Guangdong Province and named as recently as 2004, *M. guangdongensis* grows 1-4 m with fragrant large white flowers greenish at the base and with slightly revolute margins to its leaves which are densely rufous appressed villose beneath. Found at 2,100 metres in Longsheng County, Guangxi, and described in 2000, *M. guangxiensis* has very fragrant creamy white or slightly greenish flowers cup-shaped before fully opening, growing solitary or in clusters of two or three together. The last of our recommendations is *M. iteophylla* named in 1988 which has mediumsized scented white flowers and occurs around 1,650 metres at Jinping, southern Yunnan.

Except for perhaps two of the above mentioned magnolias that have been recently introduced to western gardens, it is highly desirable that the remainder of these newer evergreen magnolias of smaller stature be introduced so that these aristocratic plants may grace the smaller gardens of cities and towns in the not too distant future.

Current Name	Previous Name <sup>†</sup>	Native Region	Height
Magnolia angustioblonga (Y. W. Michelia angustioblonga†Y. W.	, 0	China (E. Guizhou)	to 4 m
Magnolia compressa Maximowi Michelia compressa (Maximowi	cz <b>var. <i>Ianyuensis</i> S. Y. Lu</b> cz) Sargent <b>var. <i>Ianyuensis</i> † S. Y. Lu</b>	<b>Taiwan</b> (Lanyu or Orchid Island)	to 10 m
Magnolia concinna (H. Jiang & E Michelia concinna <sup>†</sup> H. Jiang & I	. D. Liu) C. B. Callaghan & S. K. Png E. D. Liu	<b>China</b> (SE. Yunnan)	4-6 m
Magnolia crassipes (Y. W. Law) Manglietia crassipes <sup>†</sup> Y. W. Law		<b>China</b> (Guangxi, SE. Yunnan)	to 4 m
Magnolia dianica Sima & Figlar ( Michelia yunnanensis† Franch.	(and its many cultivars noted in text) ex Finet et Gagnepain	China (C. and S. Yunnan)	4 (-5) m
Magnolia duclouxii (Finet et Gaş Manglietia duclouxii <sup>†</sup> Finet et G	5 1 )	China (SE. Sichuan, NE. Yunnan), <b>N. Vietnam</b>	6 (-8) m
Magnolia elegantifolia Nootebo Michelia elegans <sup>†</sup> Y. W. Law &		<b>China</b> (S. Zhejiang)	to 5 m

# Table 2. Some evergreen magnolias suitable for smaller gardens

Current Name	Previous Name <sup>†</sup>	Native Region	Height
Magnolia figo (Loureiro) Cand. Nooteboom Michelia crassipes <sup>†</sup> Y. W. Law	<b>/ar. crossipes</b> (Law) Figlar &	<b>China</b> (N. Guangdong, S. Hunan, NE. Guangxi)	2-5 m
Magnolia fulva (H. T. Chang & B var. calcicola (C. Y. Wu ex Y. W Michelia calcicola <sup>†</sup> C. Y. Wu ex	'. Law & Y. F. Wu) Sima & H. Yu	<b>China</b> (Guangxi, SE. Yunnan)	3-8 m
Magnolia glaucifolia (Y. W. Law ( (* see footnote) Manglietia glaucifolia <sup>†</sup> Y. W. Law	,	China (SE. Guizhou)	to 8 m
Magnolia guangdongensis (Y. H. <sup>1</sup> Michelia guangdongensis <sup>†</sup> Y. H.	Yan, Q. W. Zeng & F. W. Xing) Noot. Yan, Q. W. Zeng & F. W. Xing	<b>China</b> (Central N. Guangdong)	I-4 m <b>DBH</b> to 10 cm
Magnolia guangxiensis (Y. W. La Michelia guangxiensis <sup>†</sup> Y. W. La	,	<b>China</b> (N. Guangxi)	5–10 m <b>DBH</b> 10-20 cm
Magnolia iteophylla (C. Y. Wu ex Michelia iteophylla <sup>†</sup> C. Y. Wu e	( Y. W. Law & Y. F. Wu) Nooteboom x Y. W. Law & Y. F. Wu	<b>China</b> (SE. Yunnan)	to 8 m
Magnolia kaifui (Q. W. Zeng & > Manglietia kaifui†Q. W. Zeng a	K. M. Hu) C. B. Callaghan & S. K. Png & X. M. Hu	<b>China</b> (S.Yunnan)	to 10 m
Magnolia rufibarbata (Dandy) V. Manglietia rufibarbata†Dandy	S. Kumar	China (SE. Yunnan) N. Vietnam	to 10 m

## Note

Information in the above table sourced from the literature (Liu 2004, Xia et al. 2008, Jiang & Liu 2008, Grimshaw & Bayton 2009, Hu et al. 2011).

- † Previous name
- \* Due to a number of distinctive features, the present authors are not convinced that Magnolia glaucifolia is a synonym of Magnolia conifera var. chingii as recently determined (Kew World Checklist of Selected Families: aaps.kew.org/wcsp/home.do) [Accessed 30 March, 2014]

### Endnote

Since the majority of warm-temperate to subtropical *Magnolias* in subgenus *Magnolia* Sections *Michelia* and *Manglietia* and in subgenus *Gynopodium* section *Gynopodium* (ex-genus *Parakmeria*) flower in spring, with only a few commencing in late winter and only a few of section *Michelia*, around a quarter of section *Manglietia* and none of section *Gynopodium* continuing into early summer, it is not appropriate to refer to them as "summer flowering" magnolias. This applies to the majority of those mentioned for Tregrehan.



Above, (left) the beautiful large blush purplish-red flower of Magnolia duclouxii (formerly Manglietia) from Dayao Shan, Guangxi; and (right) Magnolia rufibarbata (formerly Manglietia) was described as far back as 1928 from Vietnam, but apparently has yet to be introduced.

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