



Metapanax davidii in southern England forms a broad, free-flowering shrub

Metapanax

and *Dendropanax* in cultivation

The *Araliaceae* contains a broad range of evergreen shrubs suitable for adventurous gardeners. ERIC HSU considers two close relatives.

THE POPULARITY of hardy *Schefflera* in gardens has paved the way for lesser known genera of the *Araliaceae*. *Oreopanax* have recently been profiled in these pages (Smith 2014) and *Pseudopanax* elsewhere (Smith 2011), but a few species of *Dendropanax* and *Metapanax* are increasingly becoming available. The last two are the subject of this article.

The resemblance of *Dendropanax*

and *Metapanax* to arborescent, adult stages of *Hedera helix* (ivy) hints at their placement within the *Araliaceae*. Their foliage fits well with the subtropical look favoured in temperate gardens, as well as in woodland settings, which approximate to their native haunts in east Asia. However, these shrubs are not for those seeking bold flowers, since they are green and nondescript, despite having interesting spiral arrangements.

Dendropanax

Dendropanax is largely a subtropical to tropical genus, native to Central and South America and East and Southeast Asia. The 70–90 species are evergreen shrubs and trees that have alternate leaves which are either simple or 3–5-lobed. The bisexual flowers are arranged in umbels and the fruits are globose, fleshy and black – remarkably similar to those of *Hedera helix*. ➤



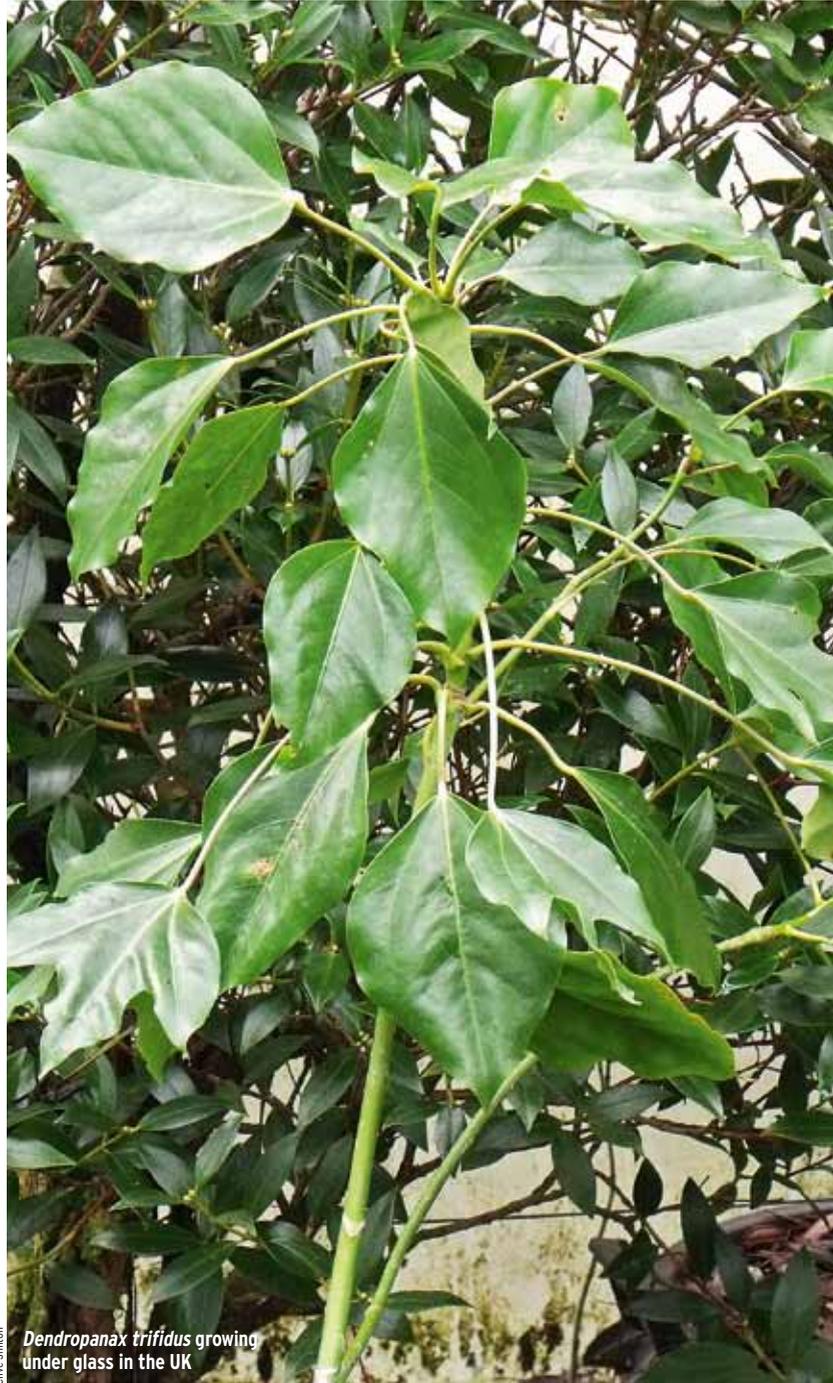
The distinctive foliage of *Dendropanax trifidus*

Andrea Jones

Curiously, botanist Charles Sprague Sargent (1894) had little to say about *Dendropanax*, remarking dryly: ‘...*Dendropanax*, a tropical genus of trees and shrubs of the New World, as well as of the Old, reaches southern Japan with a single shrubby species, *Dendropanax japonicum* [now *D. trifidus*].’

The species most often grown in temperate gardens is *Dendropanax trifidus*, native to the Japanese islands of Honshu, Kyushu and Shikoku. Ohwi (1965) lists synonyms of this species in a wide range of *Araliaceae* genera, such as *Aralia*, *Gilibertia*, *Hedera* and *Textoria*, and it even has a synonym in *Acer* – not even remotely related to *Araliaceae*. This species has confused many botanists, perhaps because of its dimorphic foliage (the juvenile leaves are lobed and the adult ones are entire) and the absence of fruits in herbarium specimens.

Dendropanax trifidus is probably the hardiest species in the genus and capable of withstanding some cold temperatures, but not heavy frost. *Dendropanax* cf. *kwangsiensis* is listed in the *RHS Plant Finder 2014*, but its long-term prospects in cultivation are unknown.



Oliver Shilton

Dendropanax trifidus growing under glass in the UK

KEY TO DENDROPANAX AND METAPANAX IN CULTIVATION IN THE UK & US

Leaves 2–3 lobed, petioles to 20cm	<i>Dendropanax trifidus</i>
Leaves simple, sometimes 2–3-lobed or divided into 3 leaflets; leaflets typically more than 3cm wide; petioles to 20cm	<i>M. davidii</i>
Leaves with 2–5 leaflets; leaflets 1–3 cm wide; petioles to 12cm	<i>M. delavayi</i>



The inflorescence of *Metapanax davidii* marks it out as a member of the *Araliaceae*

Doug Smith



The variable foliage of *Metapanax davidii*, but note the lack of leaflet stalks

Doug Smith

Molecular work has since demonstrated that the two species warrant their own generic status, in *Metapanax*, which is closely allied to *Eleutherococcus* and *Macropanax* (Mitchell & Wagstaff 1997, Wen *et al.* 2001, Wen & Frodin 2001). *Nothopanax* is no longer recognized, its species having been moved to *Neopanax*, a close ally of *Pseudopanax*, and *Metapanax* (Frodin & Govaerts 2004). In horticulture, *Metapanax* species are still sometimes found listed as *Pseudopanax*.

Metapanax davidii

This species is found in moist forests, roadsides and rocky slopes in the Chinese provinces of Guizhou, Hubei, Hunan, Shaanxi, Sichuan and Yunnan (Hoo & Tseng 1978) and north Vietnam at 800–3,000m. It resembles a subtropical, arborescent ivy and differs from *M. delavayi* on account of its usually simple, although sometimes palmately divided or compound, leaves with leaflets more than 2.5cm wide. The leaflets lack the petiolules (leaflet stalks) evident in *M. delavayi*.

Metapanax delavayi

This species is restricted to the forests of Guizhou and Yunnan (Hoo & Tseng 1978). The leaves generally have three leaflets, each with a short petiolule. The leaflet structure gives this species a more delicate appearance, much closer to *Schefflera* than the *Hedera*-like *M. davidii*.

Two cultivars are offered in horticulture. One was collected by plantsman Dan Hinkley from the Yulong mountains in Yunnan and is marketed by Monrovia nursery of California as *M. delavayi* Jade Dragon ('MonYuLong'). Its performance in eastern US has yet to be determined. Cistus Nursery of Oregon offers *M. delavayi* 'Stout', a selection ➤

Metapanax

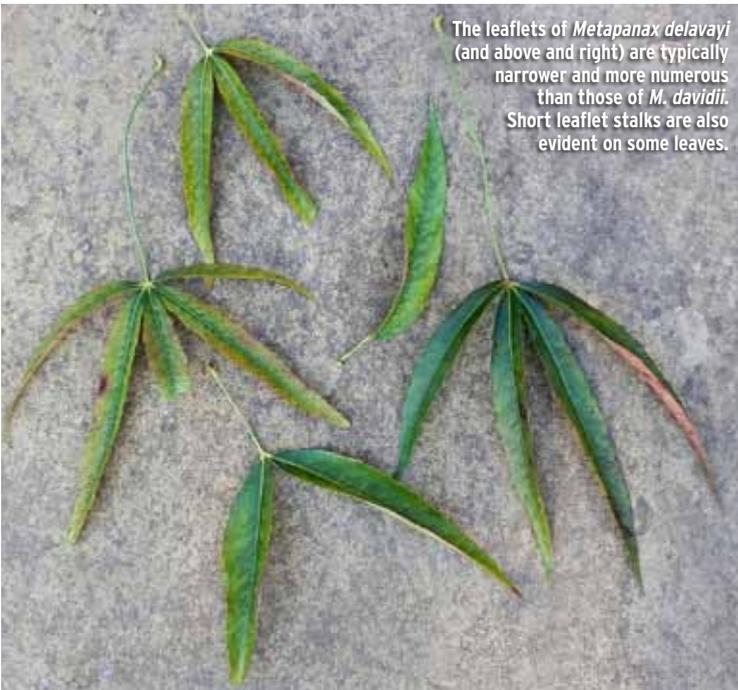
Although *Metapanax* was recognized as a member of the *Araliaceae* in 1992 (Frodin 1992), it was not formally described until 2001 (Wen & Frodin 2001). There are just two species in the genus, *M. davidii* and *M. delavayi* (Hoo & Tseng 1978, Hô 1993, Wen & Frodin 2001). Both are evergreen shrubs to trees, semi-deciduous in colder climates, with alternate, hairless leaves that are either simple or compound. The rather inconspicuous 5-merous flowers are arranged in umbels around a central panicle and the fruits are flat, black berries. In both species the petioles of immature leaves are long, to 15cm, but shorter on mature leaves.

Their taxonomic position has

fluctuated. Franchet (1886, 1896) originally placed the species in *Panax*, then Harms (1900) moved them to *Nothopanax*. Due to leaf differences (simple or palmately compound in *Metapanax* versus pinnately compound in *Nothopanax*), the species were sometimes considered distinct from southeast Asian *Nothopanax* (Miquel 1857, Philipson 1951). Philipson (1951) then reduced *Nothopanax* to synonymy in *Polyscias*, moving our two species into *Pseudopanax* (Philipson 1965). However, the general consensus had been their recognition in *Nothopanax* (Li 1941, Hoo & Tseng 1978, Shang 1985). Only Hoo (1961) questioned their placement in *Nothopanax*, but refrained from moving them.



Doug Smith



The leaflets of *Metapanax delavayi* (and above and right) are typically narrower and more numerous than those of *M. davidii*. Short leaflet stalks are also evident on some leaves.

Doug Smith

from seed, which differs from the species in its leaflets of a thicker texture.

Cultivation

Dendropanax and *Metapanax* are both suitable for gardens in the southeast US where hot and humid summers approximate their climates in East Asia. They can also be grown in the

warmer gardens of south and west Britain and Ireland. However, given their evergreen nature, *Dendropanax* and *Metapanax* require careful siting, such as against a wall, if grown in colder climates. Where there are heavy frosts they should be overwintered at a minimum of 4°C in a greenhouse or conservatory.

Dendropanax trifidus has survived

temperatures of -15°C with minor foliar damage (Hogan 2008). Although new leaves of *Metapanax* can be easily damaged at -1°C, Hogan (2008) reported *M. davidii* hardy to slightly below -18°C if sheltered from cold winds, or -14°C without, and *M. delavayi* to -18°C without protection. In the Pacific Northwest, plants of both species survived the December 2008 and 2009 freezes.

They appear unfussy about soil type, but seem to be happiest in neutral loam. They resent poorly drained conditions but a lack of moisture can result in stunted growth or yellowing foliage.

No serious pests or diseases trouble the plants, although scale insect may bother stressed plants.

Plants are normally propagated vegetatively. Cuttings taken at any time of the year will usually root fairly easily, providing a small amount of old wood is left on the base. Bottom heat will speed up the process.

Notable specimens

Established specimens of

Dendropanax trifidus can be admired at the J.C. Raulston Arboretum in North Carolina and the Elisabeth Carey Miller Botanic Garden in Washington state. Young plants of *D. trifidus* survived the first few winters, but unfortunately died in the winter of 2013–14, in a favoured area close to glasshouses at the Scott Arboretum of Swarthmore College in Pennsylvania. In the UK *D. trifidus* is rarely grown and seems intolerant of frost.

At the University of Washington Botanic Gardens in Washington state there is a sizable specimen of *M. davidii* approximately 4m tall. On the east coast of the US, plants

perform best in the southeast. At the Sarah P. Duke Gardens in North Carolina there are specimens of *M. delavayi* raised from seed collected at Jishijiu-longtan, Kunming, China, in 1994. At Chanticleer garden in Pennsylvania, a specimen of *M. delavayi* planted in autumn near a west-facing house wall did not survive the winter. However, it may have fared better if planted in spring. *Metapanax* can also be seen at the San Francisco Botanical Garden and the Royal Botanic Garden Melbourne, Victoria, Australia.

In the south of the UK there are several well-established specimens of *Metapanax*. A plant of *M. davidii* in the National Plant Collection of *Araliaceae* in Hampshire, planted in

2002 in open ground, with some shade, is now about 2m high and more than 4m wide. It forms a highly ornamental, dome-shaped, evergreen shrub that is kept under control by pruning lightly in spring. The new leaves appear relatively early in the spring and are often caught by late frosts. However, this induces further shoots to break below the lost terminal bud which can actually improve the shape, but will compromise flowering.

In the UK *M. delavayi* leafs out later. While some scorching and damage of terminal buds is likely to occur in hard winters, cold accentuates the red colouration often seen on the leaf undersides. Its hardiness has not been fully tested in the UK, but a specimen in the National Plant Collection has come through two winters unscathed.

Conclusion

Dendropanax and *Metapanax* may not have the panache of their better known cousins such as *Fatsia* and *Tetrapanax*, but their unusual foliage offers a welcome deviation from the norm. Their ability to withstand shady woodland conditions broadens the choice of such shrubs in climates that are suitable for their cultivation.

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