

Summerflowering Chinese Buddleja

Andrew Large looks to western China for alternatives to ubiquitous Buddleja davidii

> Buddleja forrestii is one of the Chinese species of buddleja that is undeservedly underrepresented in gardens.

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HEN IT COMES to the genus *Buddleja*, gardeners' minds generally turn to *B. davidii*, originally from central China but familiar from railway lines and wasteground. There are more than 200 cultivars and hybrids of *B. davidii* but the rest of the genus to which it belongs is severely neglected.

Buddleja is widespread, with species from North and South America, Africa and eastern Asia, and from tropical, desert and temperate habitats. Of the 100 or so accepted species about 30 can be grown in temperate gardens.

South-west China is a hotspot for *Buddleja*, and there are more than 20 species found there. The plants from China can be broadly split into springand summer-flowering species. Here I want to concentrate on the summer-flowering species from the mountains of south-west China and neighbouring Himalayas. Although the latitude of this region is much lower than the UK, the plants grow naturally at altitudes of 2,000m or more, so many are hardy in the conditions of an average British winter. Others can be got through with a little care.

Generally, all these *Buddleja* species thrive on rich soil with good drainage as winter waterlogging can often prove fatal, more so than cold. Some require extra shelter from wind and frost, and pruning can require a little thought. Unlike durable *B. davidii*, several of these species do not take kindly to brutal pruning and may fail to bloom if cut back in spring because the flowers are primarily borne on the previous year's wood.

Although collectively known as butterfly bushes, the species with shorter corolla tubes are more attractive to bees and will become covered in several species of busy bumblebees when blooming.

It's worth noting that labelling of *Buddleja* species is extremely lax in horticulture, with misattributions, misidentifications and anachronisms rife. When searching for plants of a particular taxon, it's a case of *caveat emptor* as you may not be getting the plant you bargained for.

Buddleja albiflora

A species from south and central China described by Hemsley in 1889 and introduced circa 1902 by James Veitch & Sons from an EH Wilson collection. Despite the name, the flowers of the original collection are a very pale lilac and some later collections have decidedly pink-lilac flowers. Similar to *B. davidii*, there are a number of features which distinguish this species. It tends to be deciduous, even in mild winters, the branchlets and petioles are often pigmented red or purple, and the branchlets are rounded rather than squared. The individual flowers are smaller, and the stamens are inserted in the throat, whereas in *B. davidii* they are usually halfway down the corolla tube.

In the garden, *B. albiflora* can be treated as for *B. davidii* and so kept to 2m height and spread. The long drooping panicles of pale flowers are ornamental, though less showy than *B. davidii*. RHS hardiness rating: H5.

Buddleja colvilei

This species was first recorded in Sikkim, India, in 1849 by Joseph Hooker, who described it as "the handsomest of all Himalayan shrubs". It is named for Sir James Colvile, a judge in Kolkata at the time of Hooker's Indian journey. The species has a range including north-east India, Bhutan and the southernmost part of south-west China, although the Chinese population is considered endangered.

Buddleja colvilei is a large shrub or even a small tree. The leaves are big and thicker than most buddlejas. The flowers, which appear late in spring or early summer (May-June), are the largest in the genus, up to 2.5cm in diameter. They are arranged in large hanging cymes and are particularly showy, though with only a slight, unpleasant scent. The flower colour can be pale pink to deep wine-red or darker, often with a chalkywhite or occasionally a goldenvellow centre.

There are old specimens in several gardens in Britain and Ireland, and this species has been collected and raised numerous times: there must be a dozen or more clones circulating. Of these, 'Kewensis' with deep crimson-pink flowers without a conspicuous white or yellow centre is most common. Other cultivars include 'Howth Castle', also with wine-red flowers and 'Tregye', a recent introduction with dark cerise pink flowers that develop a golden yellow centre. A pink-flowered cultivar with particularly large flowers is commonly encountered but lacks a name. As far as I am aware, all are selections from wild-collected seeds.

Once considered only borderline hardy, with some shelter *B. colvilei* is actually fairly robust if started from larger, pot-grown specimens. Soil should be rich and free-draining, moist in summer, drier in winter, replicating the dry winters and monsoon summers of the Himalayas. It is often grown against a south-facing wall.

Pruning should never be done in spring and is generally unnecessary except to maintain the shape and remove dead or diseased wood. H4.

1 *Buddleja albiflora* has pale lilac or pale pink flowers.

2 *B.* colvilei has flowers in various shades and with varying markings. 3This common pink-flowered cultivar of *B.* colvilei appears to lack a name.

4 B. colvilei 'Kewensis' lacks a strong central marking to the flower.



Buddleja fallowiana

A relative of *B. davidii*, this was described in 1917 and named for George Fallow, a gardener at Royal Botanic Garden Edinburgh who had died two years earlier from wounds sustained at Gallipoli. It was introduced to Europe from seed collected by George Forrest in 1925. The natural range is mostly restricted to Yunnan and Sichuan, where it grows in forest margins and open woodlands in the mountains. Known to horticulture mostly through 'Alba', a white-flowered variant, violet-flowered forms are also in cultivation, although these can prove less hardy. There is an excellent plant grown at Howick Gardens, Northumberland (P&M 181), hardy with pale blue flowers, but sadly not available commercially.

The features which distinguish it from *B. davidii* are the intensely grey foliage and denser tomentum on the stems. The flower morphology is practically identical but for the more obvious tomentum on the calyx and ovary. Nowhere near as hardy as *B. davidii*, it requires much better drainage and some protection from the elements. *Buddleja fallowiana* will lose its foliage in the coldest weather, possibly also suffering dieback, but should produce growth from the base in spring if the roots are protected. Pruning needs only to remove dead wood and maintain shape, but it may be hard-pruned in spring if desired. H4.

Buddleja forrestii

A very variable species, this has an alarming number of synonyms. It was originally described in 1912 from material collected in western Yunnan, and named for George Forrest. In 1979, 10 laterdescribed species and subspecies were sunk into B. forrestii by Anthonius Leeuwenberg.

Buddleja forrestii is generally a large woody shrub growing as hillside scrub and in forest clearings above 1,000m. The leaves are large and more rugose than most other species, and the quadrangular stems are often conspicuously winged. The most common forms have long panicles of strongly scented flowers, which can be continuous or interrupted. The literature suggests the flowers of B. forrestii can be cream, fleshcoloured or even maroon, but in my experience cultivated plants all have off-white flowers, sometimes flushed mauve in bud. It has a shorter corolla tube compared to the closely related B. macrostachva, and the stigma is typically level with the stamens in the throat. Flowering is usually from the end of June if the winter has been mild, with sporadic blooms appearing until autumn.

Buddleja limitanea, a species sunk under B. forrestii by Leeuwenberg, is a little different. Generally only 2m tall when fully mature and slower growing (hence the name), the inflorescence consists of far fewer flowers and the foliage is smaller. This form is quite common in cultivation under its original epithet and there are several individual selections around, with flowers that can be pink-lilac, purple or whitish with a mauve flush.

Buddleja pterocaulis, sometimes listed under the illegitimate name B. longifolia or B. pterocaulis longifolia, is one of several synonyms of B. forrestii, the name referencing the winged stems of the species. A couple of cultivated plants remain under this name, including a very old and large specimen with lavender-purple flowers at Greenway, the Devon garden of Agatha Christie. The example once held in the National Plant Collection of Buddleja at Longstock Nursery, Hampshire, and cultivated elsewhere, has white flowers and is likely not the plant as it was originally named but another of the historic B. forrestii collections.

Most forms of *B. forrestii* are hardy enough to grow outside with some shelter, if kept fairly dry in winter. Pruning should be minimal, and hard spring pruning avoided. H4–H5.

5 Violet-flowered *Buddleja fallowiana* can be less hardy than the cultivar 'Alba'.

6 *B. lindleyana* 'Floral Fanfare' is one of a few compact selections of the species.

7 A garden variant of *B. macrostachya* with long inflorescences.

8 A form of *B. macrostachya* from Arunachal Pradesh, India.

Buddleja lindleyana

Distributed in south and central China, this species was described and introduced to cultivation by Robert Fortune in 1843, and named in honour of botanist John Lindley. It's a rather straggly mediumsized shrub, with small, ovate, dark green, glossy leaves. The flowers are in attractive, long, pendulous panicles in July to September. Each scentless, richpurple flower is very long and has a curved corolla tube with a white eye. *Buddleja lindleyana* needs regular spring pruning and is suitable as a wall shrub, where the straggly habit can be trained. It needs plentiful summer moisture, drier in winter.

There is little variation in the species but there has been some breeding for compactness. 'Miss Vicie' comes from the USA, and 'Little Treasure' is a similarly compact cultivar raised by plant breeder Peter Moore. Peter has also recently bred *B. lindleyana* 'Floral Fanfare' with reliably double flowers, a feature very rare in *Buddleja*. All these compact cultivars grow to about 1m with shorter inflorescences and a less robust nature, more suited to containers or sheltered raised beds. H4–H5.

Buddleja macrostachya

Another variable species, this has several synonyms and a wide distribution from India in the west to Vietnam in the east, north to Sichuan in China and south to the highlands of Myanmar and Bangladesh. It can be difficult to tell from *B. forrestii*, as both are large shrubs, 4m tall or more, with large, exotic-looking leaves and I have found plants labelled *B. macrostachya* to be *B. forrestii* and vice versa.

The identification of these two species is further complicated because they do hybridize, but *B. macrostchya* has a longer corolla tube than *B. forrestii*, and the stigma is typically well below the stamens, which are held in the throat of the flower. Also, all parts of the plant have a more obvious tomentum, which can be off-white or tan.

Plants of *B. macrostachya* fall roughly into two types: summer-flowering and autumn- (or even early winter-) flowering. This latter type is more prevalent in the south of the species' range and is less hardy, so might only bloom in a year with a warm summer and long, mild autumn. It tends to have congested, upright panicles and flowers from pink to deep maroon.

The summer-flowering types are a better bet for the garden, being generally hardier and the most similar to *B. forrestii*. They start blooming a little later than *B. forrestii*, peaking in August, and the panicles are usually long and pendulous. The most » notable collection is SBEC 360, grown in several arboreta, from a selection made by Roy Lancaster from the Sino-British Expedition to Cangshan in 1981. The summer-flowering collections I've been able to acquire have off-white flowers, although crossing two of these produced a hardy and vigorous plant with fetching pink flowers. H3–H5.

Buddleja myriantha

This species, named in 1912, is restricted to Yunnan with a few possible reports from Myanmar. Only very recently introduced into horticulture, the collections currently grown in the UK are from the Cangshan above Dali in Yunnan. Buddleia mvriantha is related to both B. davidii and B. albiflora and, until it flowers, closely resembles these species, with the same foliage and general growth habit. The inflorescence is often long and made up of a main panicle sometimes attended by pairs of auxiliary panicles. The myriad flowers (referenced in the name) can be pink-lilac to purple, and each flower is tiny; at 3-4mm they are less than half the diameter of typical B. davidii flowers. This species can be treated as for B. davidii and B. albiflora, although it's slower growing and requires less severe pruning.

Unrelated species are sold under this name, including *B. curviflora* (a species from Japan and Taiwan similar to *B. lindleyana*) and *B. salviifolia* (a very different species from southern Africa). H5.

Buddleja nivea

This species was first collected by Ernest Wilson in 1903 from western Sichuan and introduced to cultivation by James Veitch & Sons in 1905. *Buddleja nivea* is a large, vigorous shrub distinguished by the almost floccose indumentum on stems, buds, inflorescences and leaf undersides. The foliage can be striking, but the dull purple flowers are unremarkable – small and rather lost in the woolly covering of the inflorescence parts. There is a pink-flowered variant, which is less vigorous than the purple-flowered forms.

Buddleja stenostachya was first described in 1913 from a specimen taken in Sichuan. It is considered a synonym of *B. nivea* but plants in cultivation have longer, thinner inflorescences with flowers a little brighter. The indumentum is somewhat less floccose and it is said to be less hardy, though my plant has survived down to at least -10°C in the open.

Buddleja nivea var. *yunnanensis* is a variant with a restricted range and is more vigorous with larger leaves compared to the species. It is grown mostly for its flanelly foliage but is the earliest-flowering



form of *B. nivea*, blooming once in late May or June.

The flowers form on the previous year's growth. Pruning may be required, carried out immediately after the flowers fade. Plants of this variety are self-fertile, producing copious seed in isolation, though showing no signs of being invasive.

Buddleja nivea is hardy and fully deciduous in harsh winters. It can be pruned hard in spring but this can delay flowering by a few weeks. Winter waterlogging is a particular issue, as the plant becomes dormant and roots can die in wet, cold soils. Like all *Buddleja* it prefers a sunny position, and is, in my experience, no more drought-tolerant than the other large Himalayan species, despite its hirsute appearance. H5.

Other species

There are other summer-flowering species from south-west China that remain virtually absent from Western collections. *Buddleja yunnanensis* (not to be confused with *B. nivea* var. *yunnanenesis*) is a small, unshowy species. *Buddleja brachystachya* and the recently reported *B. subcapitata* are also small unspectacular species unlikely to find favour with gardeners. Most intriguing is the rare *B. sessilifolia*, a larger species related to *B. forrestii*. **O**

Andrew Large grows more than 100 *Buddleja* on his Birmingham allotment. These feature on his website: www.buddlejagarden.co.uk



Hybrids and potential future breeding

Buddleja × alata is most likely a natural hybrid of *B. albiflora* and *B. nivea*, endemic to western Sichuan. I crossed these species to produce a plant rather like *B. nivea* with similarly unremarkable flowers and hybrids of *Buddleja nivea* tend generally to be disappointing. A worthwhile challenge for an enterprising breeder would be to produce hybrids with the hairy foliage of *B. nivea* on a smaller plant and with colourful, showy flowers.

Buddleja fallowiana has been used to breed hybrids by crossing it with B. davidii. 'Lochinch' and 'West Hill' are examples combining the hardiness and vigour of B. davidii with the glaucous foliage of B. fallowiana.

Just a single hybrid of *B. forrestii* (*B. forrestii* × *B. davidii* var. *veitchiana*) is known to horticulture. 'Hotblackiana' was first presented to the RHS in 1942 by a Mr Hotblack of Sussex and was a large shrub with purple flowers. This hybrid is believed lost, although a plant that came to me under the name *B. limitanea* (i.e. *B. forrestii*) is clearly a hybrid. Could it be the lost 'Hotblackiana'?

Buddleja lindleyana has been hybridized with both B. crispa and B. davidii. 'Pride of Hever' and 'Longstock Pride' are B. crispa hybrids, but take after B. lindleyana in most respects, flowering later in summer; the flowers are mostly sterile. The main contribution from B. crispa is the scent of the flowers, which is very pleasant.

Bred in Belgium in the 2000s, the Argus hybrids are from a cross of *B. lindleyana* with *B. davidii*, and again these take after *B. lindleyana*, although the growth habits are much improved. There are two in the series: white-flowered Argus White ('Ilvoargus01') and purple-flowered Argus Velvet ('Ilvoargus2'). Although billed as non-invasive, I found Argus Velvet to be fully seed-fertile.

Given the number of species and their proclivity for hybridization, there is still a great potential for breeding new garden plants. Possibilities for improvement might be to increase flower size by crossing in a species like *B. colvilei*. Selective breeding of the species could also be explored to create more compact plants with improved hardiness.

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9 *Buddleja myriantha* resembles *B. davidii* but with smaller flowers.

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10 The common form of *B. nivea* is remarkable for its floccose indumentum.

11 The variant of *B. nivea* first published under the name *B. stenostachya*.

12 *B. nivea* var. *yunnanensis* is early into flower.

13 Could this variant, labelled *B. limitanea*, be the lost 'Hotblackiana'?