

The woodland plants of North America: East to West

Keith Ferguson

Many hundreds of North American herbaceous woodland flowering plants and ferns already grow in our gardens, or have the potential to be grown. I hope that a selection, some well-known and others less familiar, some spectacular and others more subtle, some easy-to-grow and others requiring special attention, will give you a feel for the great diversity of this rich and fascinating flora.

The two main areas are the eastern (E) deciduous forests from Canada down the Appalachian Mountains and west to the Great Lakes in the north and to the Ozark Mountains in the south, and the western (W) coniferous forests from British Columbia south through Washington and Oregon to California. Most woodland plants are spring flowering, as they are with us, but some are most notable for autumn fruit and foliage.

It's helpful to understand the conditions in which plants grow in their native habitat to achieve success in cultivation. The species native to the Pacific North West tend to be easier to grow here as the climatic conditions are more similar, with milder winters and cooler summers than in the east. Many of the species die back in early summer; some persist into autumn – they tend to grow on woodland margins and in glades, especially in the eastern deciduous forest where the canopy shades out summer growth.

Some genera and species are found in both areas, or there are closely related or very similar sister species in both regions. The 75cm *Maianthemum* (*Smilacina*)



The North American bed at Glencoe, Forest of Dean



Fig. 1 *Trillium albidum*



Fig. 2 *Aquilegia formosa*

racemosum, with its Solomon's seal type of foliage and dense terminal panicles of creamy white flowers, is a good example. The form mostly grown in the UK is the subsp. *amplexicaule* (W) which is much more robust than subsp. *racemosum* (E)¹. In my experience there are vigorous clones in cultivation here which rarely set berries, but I have raised from seed a number of collections of *M. racemosum* and, although a little smaller in size, they set fine clusters of rich red and grey speckled berries. Another species we grow is *M. stellatum*, widespread across the continent. It differs in being smaller in habit, up to 45cm tall with simple 6–15 flowered inflorescences of small, pretty, star-like white flowers and its leaves remain green through the summer. Caution: the rhizomes spread quite rapidly

and it may be too rampant for some gardens!

Among the beauties which excite a lot of interest are the trilliums. Probably the easiest and most common of the *Trillium* species are from the west coast. *T. albidum* (fig. 1), its leaves plain green or very slightly mottled and its petals sessile, white, sometimes flushed pink at the base, is widespread in Oregon and Northern California. *T. chloropetalum* and *T. kurabayashi* are much more localised in California and southern Oregon. The latter is usually tall, 30–60cm and vigorous, with some marbling of the foliage and varying intensities of deep purple petals. The charming, tiny *T. rivale* (placed in a separate genus by some authors) is found in moist habitats in the Siskyou Mountains. Its leaves are plain green and the flowers, with pedicels, are white, spotted pink. It is easily raised from seed, young plants flowering after two seasons, before the leaves divide. It is one of the few species trilliums that germinate readily from dried seed, though it needs a moisture-retentive soil. The selection 'Purple Heart' is very fine. *T. grandiflorum* (usually white-flowered) and *T. erectum* (usually deep purple) are eastern species commonly grown here; both have pedicellate flowers and plain green foliage. *T. luteum* (yellow) and *T. cuneatum*



Fig. 3 *Sanguinaria canadensis*

¹I would concur with Dan Hinkley that the western form is very likely a tetraploid with four sets of chromosomes. See *The Explorer's Garden*, Timber Press 1999

(burgundy) have sessile flowers and marbled foliage and are local in the south-eastern US.

Red-flowered aquilegias are another example of closely related, similar species from both regions. *A. canadensis* (back cover) (E) is easily recognised by its reflexed sepals, whereas *A. formosa* (fig. 2) (W) has erect sepals and is more easily grown. They need no special conditions in my experience, though *A. canadensis* tends to thrive better on a slightly acid soil. Like most aquilegias, both are highly promiscuous and need to be cultivated apart from other species to avoid hybrid seedlings.



Fig. 4 *Stylophorum diphyllum*

In the poppy family the bloodroot, *Sanguinaria canadensis* (fig. 3), so-called because of the red sap that exudes from cuts in the fleshy roots, is an eastern species we grow more often in its double-flowered form. The white flowers of the single form are very short lived indeed, but the grey-green foliage is an attractive feature and persists well into summer. In the wild it tends to grow in relatively well-drained sites on steep banks, or in sloping woodland. In cultivation it is said to thrive with regular division. In the same family is the much taller, divided-leaved *Stylophorum diphyllum* (fig. 4), with deep yellow poppy flowers. Found across much of the north-east US, it is easily grown, vigorous, self-seeds freely and can overwhelm small neighbours.

The lovely *Viola pedata* (E) is regarded as a challenge in cultivation. In the wild it grows on disturbed well-drained soil with little competition, often on roadside cuttings or banks. I have seen sheets of it growing in central Louisiana in very sandy leaf mould beside the wheel ruts of a forest track. In contrast, the small yellow-flowered *Viola pubescens* var. *eriocarpa* is easy to establish in almost any shady position.

The rich scarlet-flowered *Silene virginica* (fig. 5) (E), recently promoted in the popular gardening press, likewise requires a well-drained position and some sunshine. Its native habitat is on rocky outcrops and cliff faces in the deciduous woodland.



Fig. 5 *Silene virginica*

Fig. 6 *Dicentra canadensis*Fig. 7 *Dicentra cucullaria*

The well-known, rhizomatous, pink-flowered *Dicentra formosa*, with its many selections and cultivars, originates from the west. However it has two delightful eastern counterparts, *D. cucullaria* and *D. canadensis* (fig. 6). Both are bulbous, smaller and low-growing, with fern-like foliage and white flowers. They are easily distinguished as the nectaries of *D. cucullaria* (fig. 7) are splayed apart – it's commonly known as 'dutchman's breeches', while the 'breeches' of *D. canadensis* are parallel. Both species are demanding in their cultivation, as they tend to grow with little competition in open glades and on moderately well-drained leaf-mould-rich soils. Their foliage dies away quite early so, apart from giving them a dedicated spot in a shady raised bed, a suitable locality is between clumps of deciduous ferns where the plants can grow and flower before the new fern fronds appear.

In glades where it forms the ground cover in the eastern forest, the scent of *Phlox divaricata* (fig. 8) on a warm sunny day can be almost overpowering. It is not a difficult plant to grow and has recently become much more widely available as *P. divaricata* 'Clouds of Perfume'.

American bluebells, *Mertensia virginica* (fig. 9), with their fresh light green leaves and clusters of vibrant blue flowers, like our own often occur in huge drifts under the leafless trees. Their foliage dies back early shortly after the trees leaf up and the thick tuberous roots lie dormant until the following season. They're a good example of the importance of understanding how plants behave in their natural habitat to achieve success in cultivation.

Two dwarf irises, *I. cristata* and *I. verna*, occur commonly in the east. The

former flourishes in conditions of reasonable drainage and not much competition; it can form ground cover or be equally happy filling troughs. *I. verna*, with narrower leaves, taller flowers and uncrested petals, tends to grow as a single plant or in small groups in sandy soil in open woods. It has not thrived with us on clay modified with much leaf mould. That it is offered by only one nursery in the *Plant Finder* suggests it's not easy to grow in the UK.

Uvularia grandiflora (E), in the *Convallariaceae*, has rich yellow or pale yellow flowers and is frequently seen in gardens here, as is the smaller-flowered *U. perfoliata*; a problem is that the young foliage and flowers are very susceptible to late frosts, although the fleshy-rooted rhizomes are very hardy. Common on well-drained leafy soils, *grandiflora* is said to prefer calcareous to neutral soils while *perfoliata* prefers acid to neutral conditions. The much smaller, cream-flowered *U. sessilifolia* is a charming plant but requires more open habitats with less competition, growing on alluvial soils in the wild.

In the *Liliaceae* is the genus *Erythronium*. The western species are more commonly cultivated in Britain with some of the hybrids very familiar to us. *E. californicum* grows in dry woods, with white flowers and slightly mottled leaves; it bulks up vegetatively quite rapidly, as does the somewhat similar *E.*

oregonum. Well-known *E. tuolumnense*, with clear yellow flowers and plain green leaves, is found in the mountain forests of central California. Growing on the serpentine of southern Oregon, *E. citrinum* has superbly marked foliage and pale lemon flowers and is a lovely species. Among the violet-pink-flowered species



Fig. 8 *Phlox divaricata*



Fig. 9 *Mertensia virginica*

Fig. 10 *Erythronium revolutum*

E. hendersonii and *E. revolutum* (fig. 10) are best known. Both have well-marked foliage and grow on moist soils in the wild. There are a number of selections of these species. They tend to self-seed in the right conditions and are best raised from seed. The clear yellow-flowered *E. grandiflorum*, found growing in masses in the woods and clearings of the Rockies and westward, is notoriously difficult to establish in cultivation. From the eastern woodlands we have *E. americanum*, its petals a striking rich yellow touched with purple and contrasting light brown or lavender anthers. It is stoloniferous and tends to make large patches of foliage often with few plants producing flowers, both in the wild and in cultivation.

Fig. 11 *Jeffersonia diphylla*

Jeffersonia diphylla (fig. 11) (E) is worth growing for its bi-lobed almost butterfly-like leaves and white flowers. Its Asian counterpart, *J. dubia*, has rounded leaves and blue flowers. Both are quite easy to grow in the UK and come readily from seed. Also in this family is *Vancouveria hexandra* (W) with pleasant threefold divided leaves and rather insignificant white flowers in terminal inflorescences. It is rhizomatous and

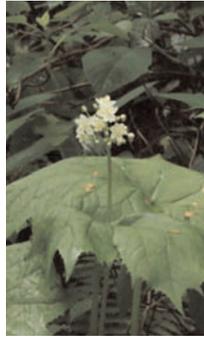
resembles *Epimedium* in its general habit. It is very vigorous with us and has become highly invasive; even its yellow-flowered sister species, *V. chrysantha*, may wander too freely.

Fig. 12 *Podophyllum peltatum*

The one North American species of *Podophyllum*, *P. peltatum* (fig. 12), is widespread in the eastern woodlands where it creeps and can form huge drifts of shining, peltate, lobed leaves under the trees. The large rather pretty, hellebore-like, white flowers are hidden under the leaves. It is a good ground-cover plant but requires space. *Diphyllia cymosa* (E) (figs 13 & 14), found on seeps and similar moist habitats, is easily grown on moisture-retentive soils: it's a fine, 1m tall perennial with white flowers and stunning dark blue berries on red pedicels in late summer. *Caulophyllum thalictroides*, blue cohosh, is not quite as tall and has deeply

divided leaves, inconspicuous flowers but striking blue fruits.

In the buttercup family we commonly grow *Actaea pachypoda* (E), its vernacular name of dolls' eyes referring to its swags of white berries; we also grow for its red fruit *A. rubra* (E & W), closely related to our European black-fruited *A. spicata*. Another taller perennial up to 75cm



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Figs 13 & 14 *Diphylleia cymosa*

(a subspecies or variety occurs in East Asia). It grows with its feet in water in its native habitats and is worth a place in a stream or pond margin.

Anemone thalictroides (syn. *Thalictrum*) (E), up to 35cm high, with distinctive umbellate inflorescence, is charming, easy to cultivate, and available in a number of selections (15 in the 2009 *Plant Finder*) – the full white double-flowered form or the pink f. *rosea* are perhaps the most pleasing. *Xanthorhiza simplicissima* is an unusual low-growing rhizomatous shrub with pinnate leaves and panicles of flowers which may vary from dark purple-brown to greenish-yellow. It is a plant of moist woodlands and stream banks (E) and can make a pleasing delicate lacy-like ground cover to the extent that in some British gardens it is a pest. I suspect that it requires a slightly acid soil as it never really thrives with us and is much sought after by rabbits, who are no doubt seeking the medicinal properties of its rhizomes! The American Indians used the roots to treat all manner of ailments from stomach ulcers and sore throats to piles and cancer.

Disporum, in the *Convallaria* family, is a genus with a number of excellent plants that are easy to cultivate. *D. smithii* (W) (fig. 15) is low growing to 30cm, much branched, with creamy white bell-like flowers in spring followed by orange fruit in late summer. Similar but less branched is *D. hookeri* with red berries. The taller *D. lanuginosum* (E) with greenish-white, paired, more open flowers and



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Fig. 15 *Disporum smithii*



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Fig. 16 *Disporum maculatum*



Fig. 17 *Spigelia marilandica*

the localised, rare, *D. maculatum* (E) (fig. 16) with its pleasing purple-spotted petals are easily recognised

Well-known species found throughout the eastern woodlands include *Tiarella cordifolia*, of which there are many selections. Like many *Heuchera* species it requires a well-drained soil with good organic matter – they rot in our heavy neutral clay. *Gillenia trifoliata* has graceful star-like flowers with persistent red calyces and can be grown in the herbaceous border – its leaves colour wonderfully in autumn.

The unusual *Spigelia marilandica* (E) (fig. 17) flowers from June to autumn if dead-headed and has intense red flowers. It is said to be quite easy, but we have found it needs better-drained soil and less competition than we first gave it.

Pachysandra procumbens (E) has small spikes of fragrant white flowers and in spring fresh green leaves which become marbled or patterned, providing winter interest. It has a delicate charm that is totally lacking in its coarse evergreen Asian counterpart *P. terminalis*.

A whole article could be devoted to the many woodland ferns that we grow in Britain. Here are just three I like and which thrive in cultivation for us. The sword fern, *Polystichum munitum*, a striking evergreen with 90cm long, simple pinnate fronds, grows in abundance throughout the Pacific NW and is found in the west of the Olympic Peninsula in Washington State with a rainfall of over 5m; it grows almost as well on the ‘dry’ eastern side of the Cascade Mountains with 60cm of rain. From the east, also evergreen and again with simple fronds, the Christmas fern, *Polystichum acrostichoides*, is much smaller. Both are easily grown in a variety of soils and being evergreen are an invaluable addition to the winter garden. *Adiantum pedatum* (E) and the subtly different *A. aleuticum* (W) have 30cm stems carrying fan-shaped blades of delicate, maidenhair foliage.

The rich woodland flora of temperate east Asia and the many new introductions from that region, China especially, should not be allowed to eclipse the woodlanders of North America, which I believe have a charm and interest of their own. 🌿

Keith Ferguson is a keen plantsman and botanist. He and his wife Lorna grow North American woodlanders in a newly developed garden on moist clay (heavy in places) in Gloucestershire, having gardened previously on Bagshot sand in Surrey.