



NEWSLETTER

APRIL 2007

Mr. Adrian Orchard Hellebores - Species and Hybrids

Thanks to Brian Mathew's 1989 monograph and the hybridising carried out by the likes of Eric Smith, Helen Ballard, Elizabeth Strangman, Robin White (Blackthorn Nursery) and Ashmead Nursries, the genus and especially the hybrids have become much more accessible and 60,000 plants a year are now micropropagated for the trade. The genus is a member of the Ranunculaceae with 17 species and 10 subspecies at the last count (but see below where some subspecies have become full species), of which two are British natives and of Western Europe (*H. foetidus* and *H. viridis*) and apart from the Chinese *H. thibetanus* the remander have a distribution which ranges from the Balearic Islands eastwards into the Caucasus. The flowers of the genus have an outer whorl of 5 sepals and an inner one of up to32 nectaries ('honey leaves') which may be considered as primitive petals. The name derives from the Greek to kill food, an allusion to their highly toxic properties (glycosides) and are left alone by animals in the wild. Nevertheless they have had a history in herbalism going back at least 2200 years as a purgative and for the treatment of mania, epilepsy, skin infections and others and are still used to a limited extent today in regulating cardiac rhythm and as a possible cure for cancer. (For the horrors that can be caused see chapters 2 and 3 of Brian Mathew's book).

Although Brian Mathew believes a more natural classification with six sections should be presented, a caulescent/acaulescent model remains helpful and convenient for horticultural purposes. The caulescent species are those with (above-ground) stems and the acaulescent plants are those without visible above ground stems (i.e. basal only). One of the significant cultural differences between the two groups is that caulescent plants generally can not easily be subjected to division as a means of propagation. Acaulescent plants divide fairly easily, and this can be done in late spring or early autumn, or during summer in cooler climates. Caulescent plants generally are short lived. Often after three or four seasons the plants begin to fade in some gardens. However, they also mature much quicker on average, often blooming in their second spring. Older plants are easily replaced by younger seedlings. Generally speaking, it is easiest to hybridize caulescent with caulescent and acaulescent with acaulescent, though there are exceptions. The Christmas rose (Helleborus niger) belongs in a category all its own. H. thibetanus and particularly H. vesicarius exhibit unique qualities (see below). There are even some 'acaulescent' plants that produce short above ground stems.

In summary from a revision of species from American hellebores.org website

Caulescent: H. foetidus H. argutifolius H. lividus

Caulescent/acaulescent H. niger

Acaulescent: H. bocconei H. hercegovinus H. abruzzicus H. multifidus H. torquatus H. croaticus H. atrorubens H. dumetorum H. occidentalis H. istriacus H. liguricus H. viridis H. purpurascens

Other: H. vesicarius

All hybrids between acaulescent plants are called Helleborus x hybridus. The caulescent hybrids are:

H. x sternii: Hybrid of H. lividus and H. argutifolius H. x ericsmithii: Hybrid of H x sternii and H. niger H. x nigercors: Hybrid of H. argutifolius and H. niger H. x ballardiae: Hybrid of H. lividus and H. niger

The plants thrive in most soils except the very heavy and very light and are shade tolerant rather than shade loving with a preference for full light in winter and semi-shade in summer. They put up with neglect, but like TLC with leaf mould and liquid feed after flowering and being kept damp in summer. Propagation is by seed (sown as soon as ripe) or division. Seedlings under plants may bear little likeness to their parents. Of the pests, the worst are gardening journalists, but apart from that there are aphids, slugs, snails and mice which chew emerging flower stems. Black spot is unsightly, but not fatal and can be kept at bay with a rose black spot preparation. The best time to buy is when in flower – what you see is what you get! Most have a life of 20-30 years and don't like being moved after four or five years.

So to the species. Helleborus argutifolius (corsicus) (147/20, 228/135) is very hardy and self-seeds

Helleborus argutifolius

with ease. It sprawls in the wild and needs propping up in cultivation, especially when in heavy shade. The Corsican hellebore (also from Sardinia) can grow larger than any other species. The leaves are trifoliate and leathery and the pale green flowers appear from mid-January. H. lividus (147/20, 221/239) is a Majorcan endemic (possibly Menorca and Cabrera), now uncommon in the wild and relatively rare in gardens due to the fact it is not reliably frost hardy in more colder situations. It is also trifoliate, mostly not toothed, with whitish veins, the underside suffused with

purple staining often

wintergreen on an annual stem. The flowers are small and not overwhelming, but the cream to light green interior contrasts well with the pinkish and purplish hues on the outer sepals. With foliage less than 10" high and flowers to little more than 1 ft. its size (so good in a pot) clearly distinguishes it from *H. argutifolius*, as do its colorful markings and geographical distribution. These two species readily hybridise and when introduced at Highdown in the 1940s, were named as *H. x sternii* (147/14 — they are amazingly variable showing characteristics of both speciues.



Helleborus sternii

H. niger 266/473), seen in deep leaf litter is not easy to grow and without cover, will rarely be in flower on 25 December in spite of its common name of Christmas Rose. Forms from Slovenia are red flushed, but it seems that conditions forces colour. H. x ericsmithii: Flowers are generally pure white rather than the treeams of H. orientalis. Self pollination has not produced a single double. They are being micro-propagated by the Japanese. A large number of intermediates have been produced with H. lividus and with H. argutifolius (H. x nigercors) such as the Dutch micropropagated 'White Beauty', very robust and attractive. Raised by Eric Smith (and Jim Archibald), hybrids with H. sternii have produced some fine, very hardy plants - 'Pink Beauty' is magnificent.

The wintergreen pedate foliage of *Helleborus foetidus* (272/158) has lateral leaflets deeply divided into narrow lobes, while the small and green flowers are pendent, less than I" in diameter and produced on single terminal inflorescence in clusters above foliage. Widespread throughout much of western, central and southern Europe it grows in woodland, scrub and open rocky areas to around 6000'. Though fairly common and readily available, it is perhaps one of the more underrated hellebores. Few hellebores are as magnificent during the coldest days of winter prior to blooming.

Now to the acualescent species.

For garden value, little can beat *H. orientalis* (147/14 - easy to grow, floriferous, increasing freely from seed, while hybridisation with other species has produced colourful variation. The large flowers can be pure white to cream/yellow, often with some pale green areas in the interior of the sepals. Others are reddish-pink or cream/white with red-burgundy spotting. Its usually multi-stems (some forms are red), annual with much divided leaves and narrow leaflets. The distribution lies from NE Greece, the southern margins of the Black Sea and into W. and C. Caucasus.

Although only 6-11" in flower and green flowered, *Helleborus dumentorum* (251/59) is an attractive species, the leaves basal, serrate, pedate with 9-12 segments. From Austria, Hungary, Romania, Croatia, it is a species that is often described as a 'charming' or 'demure' plant of woodland, but it is tough, resilient and versatile. Although 'dumentorum' means of thickets or bushy places, almost any position seems to suit it.

Another green flowered species is *H. multifidus* (147/12), the specific name referring to narrow segments of the deciduous leaflets which are serrate with 20-45 segments. It grows in Croatia, Hercegovina and Albania? in woodland, scrub, warm open slopes and meadows to 1400' It has generally a more southerly and westerly range than that of *H. torquatus*. Many populations in Croatia have very confusing colonies, but the photos here represent what is currently considered 'true' *Helleborus multifidus*. Some authorities have given the four subspecies full specific status – *H. mutififidus* from Croatia, *H. hercegovinus to the south*, *H. istriacus* to the north and the Italian *H. bocconei* (147/13).

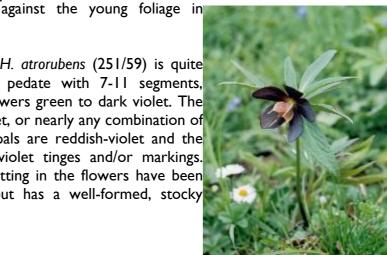
The range of Helleborus hercegovinus (252/59) is restricted to southern Herzegovina and western

Helleborus herecegovinus

Montenegro. It grows not far from the Adriatic coast but typically in mountainous environments and not on the coast itself. The plant has a more southern distribution than *H. multifidus* with which *H. hercegovinus* has been lumped. Not more than 12" in flower, the leaves are heavily dissected into 45-100 or more segments (one with 235 leaflets!) less than one quarter inch wide. The yellowish-green or pale green flowers are produced rather sporadically by hellebore standards, but do look nice

spring.

Of the three Balkan purple species, *H. atrorubens* (251/59) is quite rare.10-14" in flower, leaves basal, pedate with 7-11 segments, central leaflet often undivided and flowers green to dark violet. The sepals may be light green to dark violet, or nearly any combination of the two. Often the backs of the sepals are reddish-violet and the interior of the flower green with violet tinges and/or markings. Recently, plants with veining and spotting in the flowers have been described. It is not a large plant but has a well-formed, stocky



Helleborus atrorubens

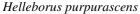
appearance when in full leaf. It occurs in a rather limited area in southeast Slovenia and adjacent Croatia west of Zagreb.

With dark violet-purple flowers, *Helleborus torquatus* 2(51/58) is 8-16" in flower, the serrated deciduous pedate leaves have 15-30 segments, the flowers green to violet. It is found in Croatia, Serbia, Bosnia, Montenegro with different forms in each country – the flowers of those in Bosnia smaller. Distinguishing between *H. torquatus* and *Helleborus multifidus* has particularly proved difficult.and a revision of the genus is underway. Double forms were found in Montenegro by Elizabeth Strangman and named as 'Dido' and 'Aeneas' (251/64). It hybridises in the wild with *H. multifidus* and *H. cyclophyllous* in Montenegro.

Helleborus purpurascens is only 2-8 inches in flower which are purple-brown-green, 2-3" in

diameter appearing before the foliage almost as soon as they push through the ground. A very good garden plant, but essential to buy in flower as some forms are drab. Widespread in Romania, C. and N. Hungary, Slovakia, Poland, W. Ukraine

A relatively newly described species, Helleborus croaticus represents the third of the 'purple' flowered species. It occurs in northeast Croatia over a limited range. In flower appearance, it most closely resembles Helleborus torquatus and Helleborus atrorubens, but it seems isolated in its geographical range and has some other distinguishing features. It can be larger than H. atrorubens, young foliage is typically hairy underneath rather than glabrous, and it's flowers are rather small in relation to its foliage and bracts. The large open bracts also help distinguish it from H. torquatus.



Helleborus odorus (220/200) is one of the best of the green flowered species (and as the specific name implies, scented), the underside of the tough leaves covered with long hairs which remain until new foliage emerges. A yellow flowered form occurs in Croatia which probably gave rise to the yellowish strains of so-called 'orientalis hybrids'.

Helleborus cyclophyllus (147/13) occurs in a rather broad range extending from southern Bulgaria and Yugoslavia through Albania and northern Greece to the island of Corfu, growing from near sea level to 6000ft. Unlike H. orientalis, a near relative, its flowers are green to yellow-green and like H. odorus has a scent reminiscent of blackcurrant.

H. thibetanus (270/411, 272/131, 299/29) from central China, was introduced by Pere David and rediscovered in he 1980s by Japanese who have instigated a breeding program. It is unusual in that it is two years before seedlings emerge i.e. it is hypogeal and does not produce observable cotyledons above the soil surface. It has serrate pedate deciduous leaves and the white to pink flowers, often veined often appear before the leaves begin to unfold. Grows up to 11,000ft.



H. vesicarius (147/11,12 – seed, 266/455,

277/230), from the Turkish Amanus and Syria is



Helleborus vesicarius -Photo Mike Bylford

Helleborus vesicarius -Photo Mike Bylford

unique in many ways: not only does it have extraordinary inflated seeds (which when dry are blown away by the wind), but is neither caulescent nor acaulescent in the context of hellebores. The leaves are buttercup-like, it seems to produce no stem at all and is thus the least caulescent of all hellebores. It is, therefore, unlike any other, though the flowers have a similar appearance to those of *H. foetidus*. The flowers are small, green suffused with a purple or brownish stain near the apex. It has a short season of interest, needs absolute drought in summer and is more of botanical than horticultural interest.

Helleborus x hybridus: Refers to all hybrids between acaulescent species, between acaulescent species and H. x hybridus, and any of the offspring of such plants. The name also is used for acaulescent plants of unknown provenance in gardens and nurseries. Often H. orientalis was used as the type in the past, but it made no sense to use the 'Orientalis' epithet when talking about hybrids where H. orientalis may never have been involved.

Adrian showed a bedazzling set of *H. x hybridus*, many unnamed seedlings. Among them Helen Ballard's vivid green 'Helen Ballard'; Jim Archibald's 'Orion', cream tinged green, purple stain in centre and purple nectaries; a yellow seedling with a dark centre; one with cup-shaped green flowers; a deep pink in the Picotee group; a Ballard seedling, flowers paler on the inside; a heavily spotted very pale pink; a very pretty *H. torquatus* hybrid with dark stems and bracts flowering in early January and another with semi-double flowers 'Raspberry Pink' the old leaves in typical habit flopping on the ground; slatey-blue; a double white from Tasmania; 'Anemone' types which are mainly spotted.

Some Ashwood Nursery H. x hybridus







Yellow/Gold Nectaries



White Blotched



Green spotted Anemone



Primrose Picotee



Pink Picotee



White Double Form



Anemone Form Pink

Hellebores usually have long roots, so deep pots are necessary. Seed pans are filled with JI with ½ to ½ inch medium aquarium grit on top and are placed outside or in frames (don't forget the mouse problem) or on high shelving in the greenhouse. Seed sown immediately sown when available will germinate from the end of November into December, with the exception of H. niger which waits until January. Seedlings are potted on IN January with JI2 +????+grit and as their roots are very large, potted on again in May or June in 2 litre pots or 3 litre in September. 50% will flower the following year.

I hope you were all dazzled by Adrian's presentation!

Hellebores - Brian Mathew AGS 1989 (out of print) Monograph

Hellebores: a comprehensive guide - CC Burrell and JK Tyler Timber Press 2006

The Gardener's Guide to Growing Hellebores - Graham Rice & Elizabeth Strangman Paperback

2005 (not known whether updated from the 1993 hardback) David & Charles

Hellebores - Graham Rice RHS (newly published Wisley guide)

A gardener's guide to Hellebores - Brian Mathew AGS Bulletin 147/1

Mathew and McLewin. "Hellebores 5: Helleborus purpurascens", The New Plantsman, Vol. 4, Part 4, December 1997. 175-179.

Mathew, B. 1994. The spotted hellebore: Helleborus orientalis subsp. guttatus. The New Plantsman I (3): 181-183.

McLewin, W. & B. Mathew. 1999. Hellebores: 7. Helleborus vesicarius & H. thibetanus. The New Plantsman 6(3): 139-147.

McLewin, W. & B. Mathew. 1998. Hellebores: 6. Helleborus orientalis & H. \times hybridus. The New Plantsman 5(2): 117-124.

McLewin, W. & B. Mathew. 1997. Hellebores: 5. Helleborus purpurascens. The New Plantsman 4(3): 175-179.

McLewin, W. & B. Mathew. 1997. Hellebores: 4. Helleborus multifidus subsp. multifidus. The New Plantsman 4(1): 44-50.

McLewin, W. & B. Mathew. 1996. Hellebores: 3. Helleborus atrorubens: the problem of speciation in acaulescent hellebores. The New Plantsman 3(3): 170-177.

McLewin, W. & B. Mathew. 1996. Hellebores: 2. Helleborus dumetorum. The New Plantsman 3(1): 50-60.

McLewin, W. & B. Mathew. 1995. Hellebores: 1. The genus Helleborus. The New Plantsman 2(2):112-122.

All good websites with lots of information:

http://www.hellebore.com/

http://www.ashwood-nurseries.co.uk/hellebore.htm

http://www.hellebores.org/

http://www.grahamrice.com/hellebore

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MEETING 21 APRIL

BOB CHARMAN on IRAN (Fritillaries and others)

You have seen lots of Bob's photographs, so will know that his pictures will be good and with his expertise, you will enjoy his commentary as well. This will also be the first time we will have had a digital projection presentation.