

HEDERA

1. *Hedera helix* / *H. hibernica*

Hedera helix, common ivy, and *H. hibernica* (*H. helix* subsp. *hibernica* (G. Kirchn.) D. C. McClint.), Atlantic ivy (so-called because it occurs on the Atlantic seaboard from Gibraltar to Ayrshire), may be confused but can be distinguished using the characteristics in the Table below (updated from McAllister & Rutherford 1990). *H. helix* is usually a blackish-green in its foliage, *H. hibernica* is a yellow-green; this coloration is a more important feature than leaf size.

Hedera species along the western seaboard should be examined in the field. The leaves of the creeping infertile stages should be examined; herbarium specimens tend to be composed of the fertile stages but these are of little use for identification. Fresh material only should be sent to referee.

H. hibernica occurs predominantly in the west, though the Channel Islands and the Isle of Man only have *H. hibernica*. It meets *H. helix* in Hampshire, the Welsh/English borders, the eastern end of the Solway, Ayrshire, and Northern Ireland, and has been introduced further east. Provisional maps are given in McAllister & Rutherford (1990).

Both species have been cultivated for many years, and forms out of the ordinary have been collected from the wild and propagated, and may eventually escape back to the wild again. *H. hibernica* is as variable as *H. helix* (Rutherford 1979); there are dwarf forms as well as very large leaved forms with fast growth, mostly with a lower anthocyanin content with less black-green foliage, or very low with emerald green foliage. In the Channel Islands cordate-leaved forms with poor climbing ability have been found, as well as rampant long-lobed types with emerald-green leaves and red new bark and petioles, similar to *H. algeriensis*.

H. hibernica 'Hibernica', the Irish ivy of gardens, which has large leaves and forms dense, non- or weakly-climbing mats up to 20 cm deep. It is native to central south-west England, but can also be found all over the British Isles near habitation. *H. hibernica* 'Digitata', sharp-leaved Irish ivy, was originally found in eastern Ireland; this is like a long sharp-lobed 'Irish' ivy and has been found escaped from older plantings in various places. In parts of SW Scotland, there are forms of *H. hibernica* with almost funnel-shaped leaves, and in many parts of the western seaboard small plants with bluntly 3-lobed foliage have been found; these neither grow rampantly nor form dense mats.

2. Other naturalised species

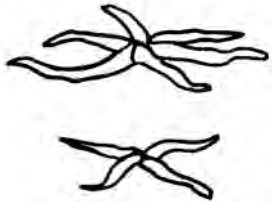
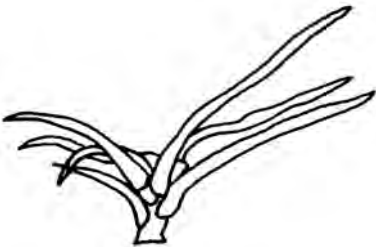
Hedera colchica (K. Koch) K. Koch, Persian or Colchis ivy, has been found naturalised. *H. colchica* var. *dentata* Lawr., Dull or Toothed Persian ivy, and *H. algeriensis* Hibberd, Algerian ivy, may also occur.

H. colchica is very distinct and the form mostly seen escaped has large, shining, leathery, deep green leaves (Fig. a). These are nearly all cordate, scarcely changing in the fertile stage. It may be found

Plant Crib

clothing banks and woodland floors or climbing tall trees when its distinct regular heart-shaped foliage lying like tiles on a roof may catch the eye. It has a distinct sweet umbellifer odour which in damp warm places can be detected without touching the plant. There are long narrow-leaved forms with sometimes sharp lateral lobes but the scent and behaviour is the same. The hairs are golden-brown, many-rayed, and form a 'stockinette' effect on the tips of young shoots (this may be seen without a lens).

H. colchica var. *dentata* (Figs. b-d) is much less thick and fleshy in its leaves which are more papery-leathery, dull and matt-surfaced and of a much lighter green. The blade has slightly down-turned margins which bear little teeth or prickles. It is often seen for sale in its cream-variegated form 'Dentata-variegata' (Fig. b) or the more modern form with central lime and golden markings, 'Sulphur heart' ('Paddy's pride') (Fig. d). The scent is less strong but similar.

	<i>Hedera hibernica</i> (G. Kirchn.) Bean	<i>Hedera helix</i> L.
Growt h	Mostly fast and vigorous; internodes to 18 cm or more; new shoots thick and succulent	Slower growing; internodes 3-8 cm; new shoots often wiry
Leave s	Variable but mostly larger, to 10 × 10 cm; frequently fleshy-waxy; in cold temperatures may turn pinkish or light bronze with apple-green margins to veins, sometimes not darkening; sinuses often deep and strongly arched, sometimes funnel-shaped; veins of sterile phases rarely raised on leaf surface, usually same colour as lamina, usually bordered in paler shade or yellow-green; the hyaline layer (a clear rim to the edge of leaves) is prominent due to up-turned edges	Variable but generally smaller 3-8 cm; often papery, but may become fleshy in coastal areas - in cold temperatures may turn purple-black; sinuses shallow to deep, blade flat except the margins; veins of sterile phase leaves almost always raised on leaf surface, often silver-white, rarely edged with paler colour; hyaline margin not apparent due to down-turned margins
Petiole s	Often ruby-red, especially in open in summer; in cold turn ruby-red.	Usually bronzy green, though new shoots often ruby in open in summer
Hairs (see note 1)	New shoot tips and leaves sparsely hairy; rays appressed, lying parallel to leaf surface; often tinted fawn, sometimes orange-brown 	New shoot tips and leaves often densely pubescent; rays projecting in all directions, grey-white 

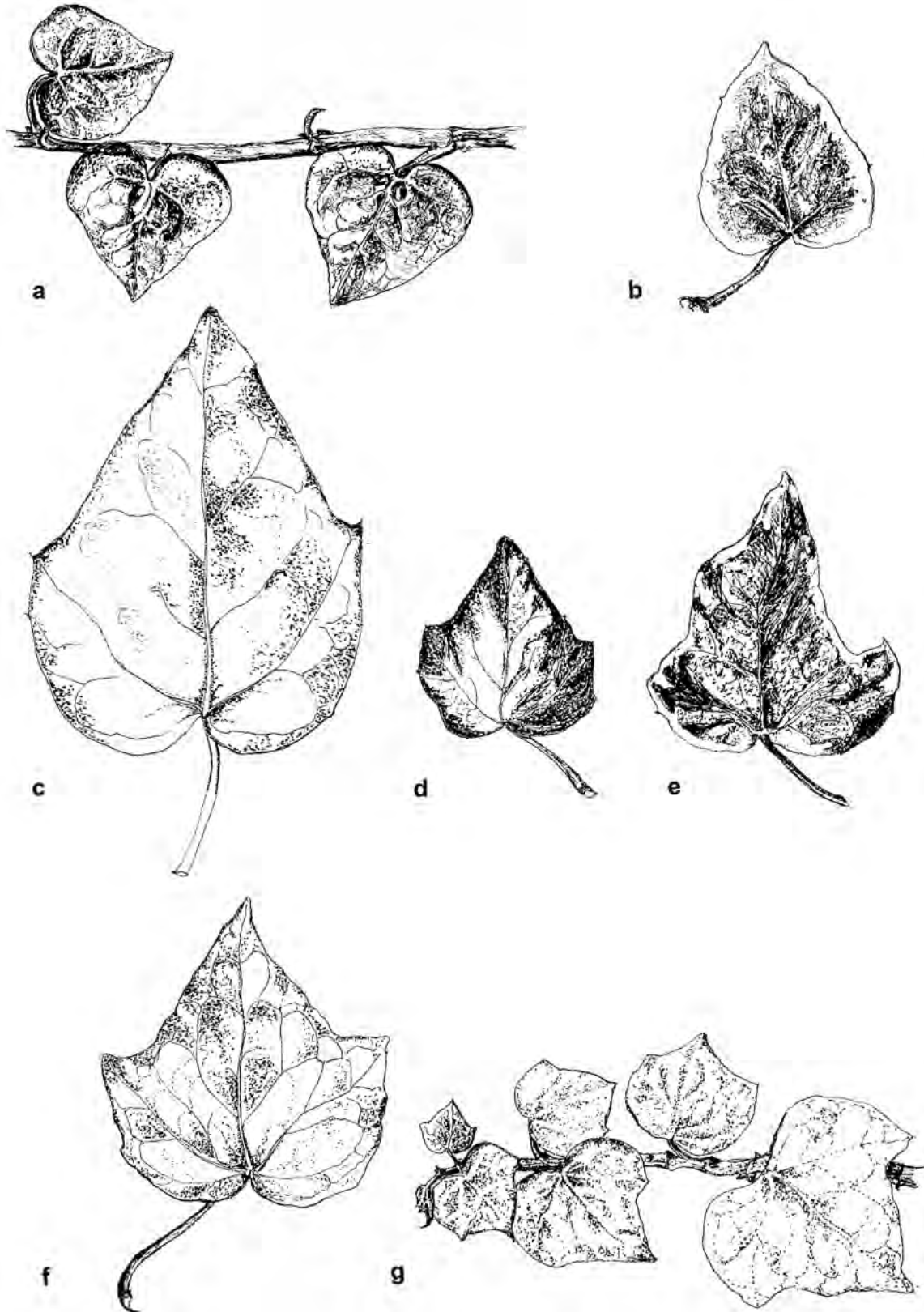
Plant Crib

Sap	Odour strong, often pine-like and sweet	Odour weak and usually rather acrid
Habitat	Tolerates a much wider range of soils and drought/wetness and acidity. Able to colonise unstable rock and places like storm beaches	Requires base-rich soils and enjoys some shade in sunny areas. Does not tolerate acid or boggy soils. Prefers stable rocks or cliffs, not seen on storm beaches

Note

1. The scale hairs are a certain way to distinguish these species, but great care must be taken in selecting material. Shoots which are windswept, which have been handled, are drought-ridden or nearing the fertile stage are unsuitable. Take young, fast-growing sprays and examine fully expanded foliage with a $\times 10$ or $\times 20$ lens. *H. helix* has the hairs with rays pointing in all directions and densely crowded to give the effect of downiness. *H. hibernica* has the rays mostly parallel with the leaf surface and the effect is of glistening lengths of spider's web laid on the leaf. Note both species at older stages have appressed hairs, and the projecting rays of *H. helix* can be dislodged and thus lead to misidentification.

Plant Crib



Hedera leaves (a) *H. colchica*, (b) *H. colchica* var. *dentata* - 'variegata', (c) *H. colchica* var. *dentata* (d) 'Sulphur heart' (e) *H. algeriensis* 'Gloire de Marengo', (f) *H. algeriensis*, modern soft-leaved form, (g) *H. algeriensis* leathery older introduction. Del. A Rutherford.

Plant Crib

H. algeriensis, being less winter-hardy, should be sought in south and western areas. It is commonly seen in its variegated form 'Gloire de Marengo' (Fig. e) and is frequently sold as '*H. canariensis*'. It is able to grow from cast out cuttings in damp woods. Two main forms occur, a leathery-foliaged, slowish growing, yellow-green form (an older introduction), and a more recently introduced green form of the variegated.

The leathery-foliaged form (Fig. g), has been found in the Bristol area and on the Isle of Man and the latter in V.c. 99. The leaves are mostly 3-lobed with cordate or rounded bases, the central lobe the longest, and may be quite leathery once developed. They are mostly light green but may, especially if the all-green of the variegated form, be a rich green.

The second form has soft and waxy leaves (Fig. f). The petioles and new growth are usually ruby-red or ruby-bronze, and redder in sun.

- References** Key, H. (1997). *Ivies. A Wisley Handbook*. pp 48-51. RHS, London.
Lum, C. & Maze, J. (1989). *Watsonia* **17**: 409-418.
McAllister, H. A. & Rutherford, A. (1990). *Watsonia* **18**: 7-15.
McAllister, H. A. & Rutherford, A. (1997). *European Garden Flora* **5**: 375-380.
Rutherford, A. (1979). *BSBI News* **22**: 8-9.
Rutherford, A. (1983). *Journal of the British Ivy Society* **6(2)**: 17-19.
Rutherford, A. (1995) *BSBI News* **69**: 24-27.
Rutherford, A. (1996). *BSBI Scottish Newsletter* **18**: 24-26.

Author A. Rutherford, October 1997.