



Some ferns will grow only on walls and rocks. Others grow there occasionally but are more often found elsewhere - if a fern is abundant enough, its spores are likely to find a suitable piece of wall occasionally (hence one often sees bracken growing out of the bottoms of walls). This key is intended to be used on normal specimens, and may be less reliable for specimens in unusually dry and hot, or cold, damp and shady, situations. It is intended mainly for mature ferns, and not for recently germinated specimens. The wall specialists will usually be thriving, so may be abundantly fertile; if other species occur, such as some of the woodland ferns which usually grow in rich soil, they are likely to be stunted and will often die without producing spores.

- 1 Fronds completely undivided, evergreen, strap-shaped, glossy bright green. Spore masses, when present, linear, 1-3cm long. Fronds up to 60cm x 6cm in ideal conditions.

Hart's-tongue *Phyllitis scolopendrium*

Fronds at least lobed or simply pinnate, sometimes more finely divided. 2
- 2 Underside of all fronds thickly covered with a felt of ginger-brown overlapping scales. Fronds leathery dark-green above, simply pinnate, the pinnae bluntly triangular and untoothed. Small, fronds up to 10cm long.

Rustyback *Ceterach officinarum*

Underside of fronds not covered in ginger scales. 3
- 3 Fronds simply pinnate, the pinnae sometimes toothed but never lobed or more finely divided. 4
Fronds 2-pinnate or more finely divided. 8
- 4 Leaves arising singly along a creeping rhizome, spore masses on underside of fronds, circular and not covered with any protective structure. 5

(Polypody *Polypodium spp.*)

Leaves arising in tufts at the apex of a short stem or rootstock. If spore masses are circular, they are covered with a protective disc or shield, at least when young. 6
- 5 Frond blade about 2-2.5 times as long as broad, rather oval or triangular in outline, the longest pinnae being the fourth or fifth from the base. Most pinnae c. 5cm long, tips usually tapering, margins usually slightly toothed. Lowest 1-2 pairs of pinnae usually folded forward and slightly upward. Spore masses, if present, oval when young. New leaves produced in late summer and autumn.

Intermediate Polypody *Polypodium interjectum*

Frond blade mostly 3-3.5 times as long as broad, at least 1/3 of the frond approximately parallel-sided, with most of the pinnae about the same length. Most pinnae 2-4cm long, with rounded tips, their margins not or very slightly toothed. Lowest pinnae not usually folded forward. Spore masses, if present, circular when young. New leaves produced in early summer.

Polypody *Polypodium vulgare*
- 6 Fronds dark green, triangular, rather irregularly branched, made up of small triangular, diamond- or fan-shaped segments. Fronds up to 12cm, but often much smaller. Spore masses linear, c. 2mm long, near bases of leaf segments. 7

Wall-rue *Asplenium ruta-muraria*

Fronds regularly pinnate, with paired lobes either side of central stalk. 7

- 7 Leaf blade rather soft and thin. Fronds lanceolate, about 4-5 times as long as wide. Pinnae elongate-triangular, at least twice as long as broad, with toothed or lobed margins. Stem greenish, rather stout, covered in golden-brown scales when young.

Male-fern *Dryopteris filix-mas* (young specimens)

Leaf blade rather glossy-leathery. Fronds usually 8-20cm long, and rarely more than 2cm wide, very narrowly lanceolate. Pinnae oval or circular, usually less than 2.5cm long. Stem thin and wiry, usually blackish.

Maidenhair Spleenwort *Asplenium trichomanes*

- 8 Leaves arising singly along a creeping rhizome. Fronds often large (up to 2m when growing in soil, usually smaller in walls), triangular, 2-3-pinnate. Stalks very tough. Spore masses linear, along inrolled underside edges of pinnules, not covered with any protective structure.

Bracken *Pteridium aquilinum*

Leaves arising in tufts at the apex of a short stem or rootstock. Fronds either much smaller (to 40cm), or lanceolate and no more than 2-pinnate. Stalks easily snapped. If spore masses are present, they are on flat surface of underside of pinnules. If circular, they are covered with a protective disc or shield, at least when young.

9

- 9 Frond dark green, triangular, evergreen 2-3-pinnate, up to 40cm long, on long, glossy purple-black stalks. Spore-masses linear, 1-2mm long, with no protective covering.

Black Spleenwort *Asplenium adiantum-nigrum*

Fronds usually pale- or yellow-green, lanceolate, dying back in winter, 2-pinnate, up to 150cm long, on a short, stout greenish stalk covered with golden-brown scales when young. Spore-masses c. 1.5mm, circular, covered by a flat circular or kidney-shaped protective indusium.

Male-fern *Dryopteris filix-mas*

The following additional species of fern have been recorded, rarely, on walls and rocks in the three counties in the past. *Adiantum* and the three alien *Pteris* species have been recorded recently in Cambridgeshire:

Maidenhair Fern	<i>Adiantum capillus-veneris</i>
Brittle Bladder-fern	<i>Cystopteris fragilis</i>
Limestone Fern	<i>Gymnocarpium robertianum</i>
Ribbon Fern	<i>Pteris cretica</i>
	<i>Pteris multifida</i>
	<i>Pteris nipponica</i>
Holly-fern	<i>Polystichum lonchitis</i>