

Asplenium Wall-ferns in Wiltshire

There are five *Asplenium* species that occur more or less frequently in Wiltshire. In the main, they are habitat-specific. The five are: *Asplenium adiantum-nigrum*; *A. ceterach*; *A. ruta-muraria*; *A. scolopendrium*; and *A. trichomanes*.

This genus has been chosen as they are relatively easy to get to grips with, but occur in a habitat that is perhaps under-recorded, that of walls. Ferns are often considered difficult to identify and this article hopes to belay that idea. In addition, autumn and a mild winter are ideal times to search for ferns when other plants are resting.

The one thing this group all have in common is that they grow on damp rocky structures or in the case of Wiltshire, on old walls. The exception is Hart's-tongue Fern, *A. scolopendrium* that, although it is found on walls, this is often as a result of a leaking gutter or down-pipe - i.e. somewhere where water tends to flow or where the wall remains damp. It is frequently found in both ancient and secondary woodland, as well as in hedgerows: anywhere shady and damp.

Many of these ferns will have long histories at some locations, and we would like your help to find some more. Can you...

1. Record where you find a species.
2. Note down other species growing with it.
3. Indicate the type of wall or structure it is: e.g. brick, stone, railway bridge, farm wall, residential etc.

Following on below, each of the five ferns is given a page of description with a distribution map, followed by a page with photos showing a) the general appearance and b) the underside of the fronds with the sori (the spore-bearing structures).



Maiden-hair Spleenwort, Rustyback, and Wall Rue on a limestone wall in Swindon – with Ivy-leaved Toadflax *Cymbalaria muralis*.

Black Spleenwort

Asplenium adiantum-nigrum

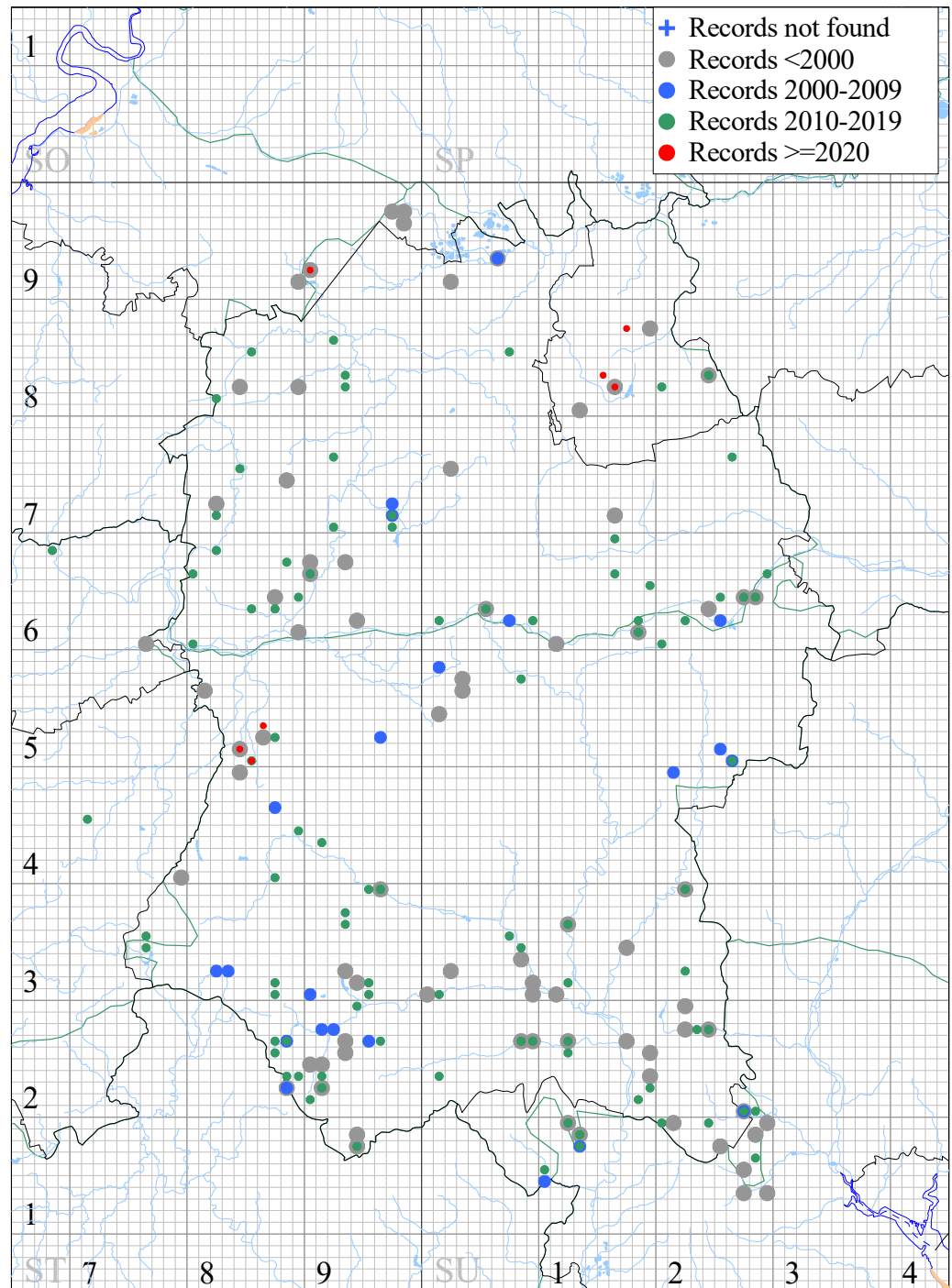
This is the least frequent of the five species described here and it is less tolerant of lime than the rest of the group. They prefer dark, dank habitats such as church cellar steps or shady walls that stay damp, or walls affected by winter wet. A number of records are attributed to the blue brick structures of the railway system i.e. bridge work (sometimes old park walls use these blue engineering bricks as a topper). Look also at red brick canal bridges. They do, of course, grow in natural habitats although more infrequent in the county, occurring in roadside banks and woodland particularly where the substrate is more acidic.

Excepting Hart's-tongue, Black Spleenwort is larger than other

Asplenium ferns. It has a triangular, ovate outline and reaching up to 50cm in length but generally a lot less than this. Half of the length can be the petiole that has a distinctive black hue particularly to the lower quarter. The leaves are shiny, darkish green forming a tight tussock.

Wiltshire records 1980 to 1999 = 111; 2000 to 2020 = 142.

Asplenium adiantum-nigrum (Black Spleenwort)





Asplenium ceterach (Rustyback)

Rustyback *Asplenium ceterach*

This is another of the least frequently found ferns in the county. Historically, this species has been recorded more frequently to the west and certainly at the Cotswold villages in the north where it enjoys the limestone of the local structures and/or lime and lime-ash mix mortar.

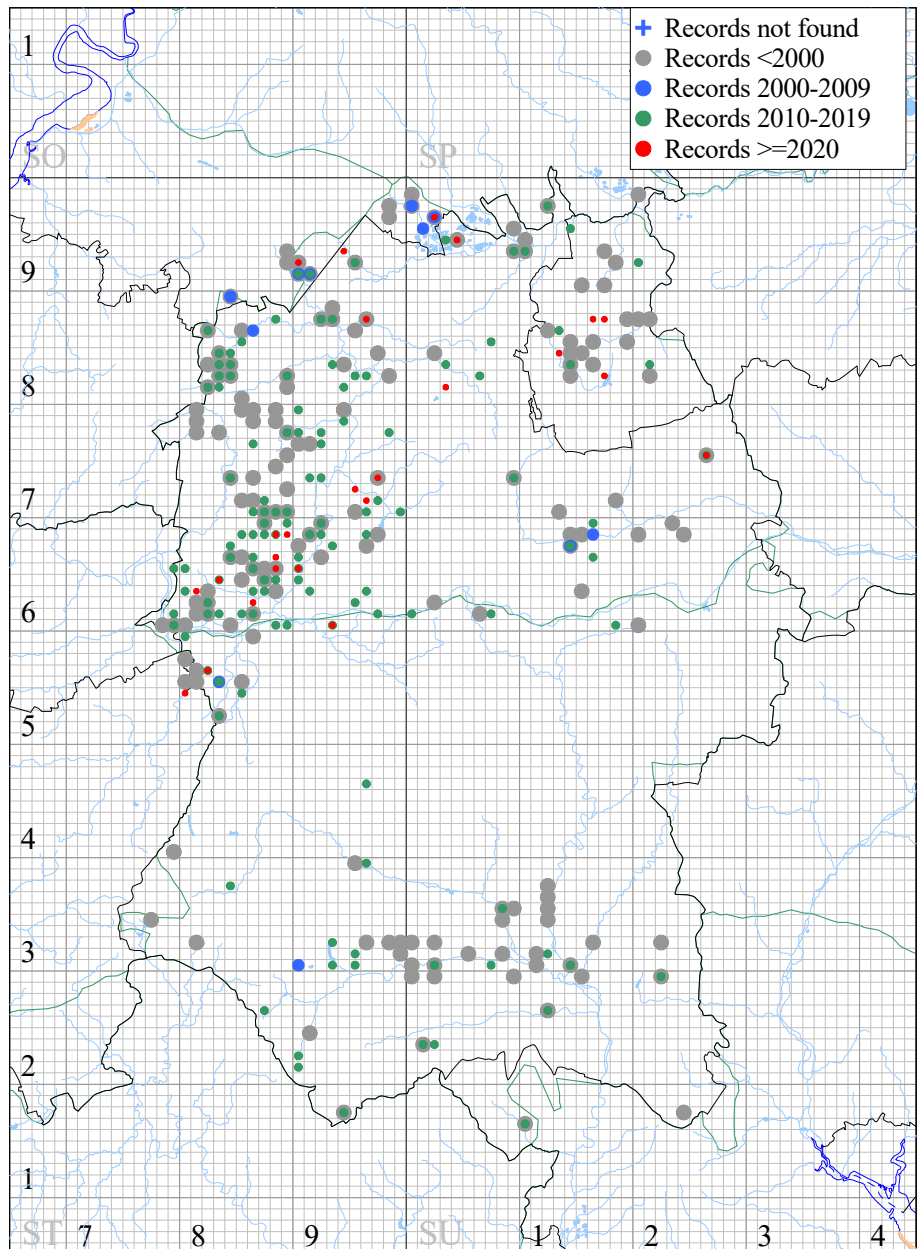
The leaves of this plant are simple but lobed, almost to the mid-rib. When mature the underside is covered by dense brownish scales which makes it easy to tell apart from the other species in the genus.

Where it is found on the front walls of farm houses and associated buildings, although regenerating naturally, it has been conjectured that in the past it was purposely planted by farm workers who found it very attractive as it came into its own in the winter time.

It is more tolerant of summer sun than the others and can be found on 'both' sides of the wall. When dry, it will just shrivel back waiting for wetter times.

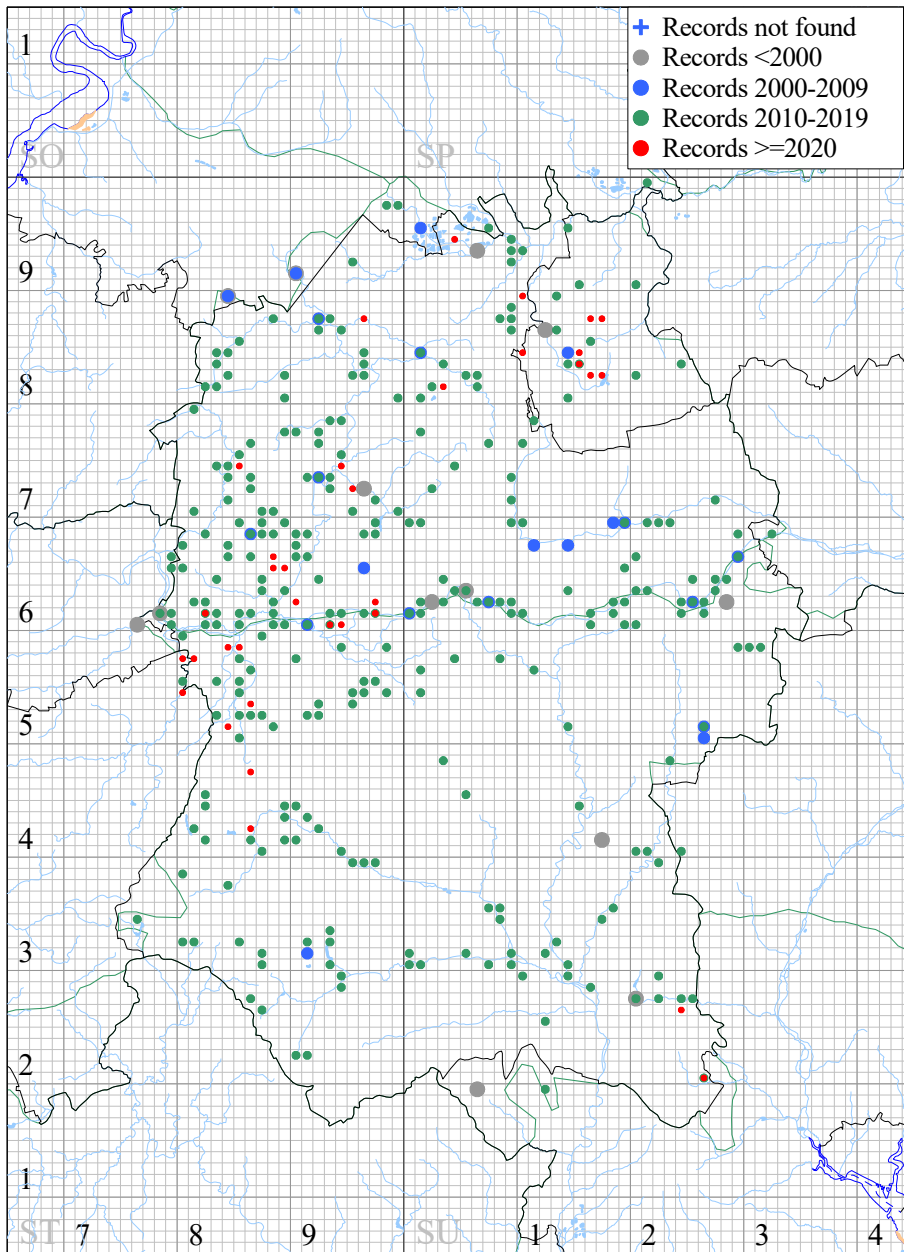
It is almost completely missing from the central part of Wiltshire and the Salisbury Plain areas; can you find it?

Wiltshire records 1980 to 1999 = 219; 2000 to 2020 = 181





Asplenium ruta-muraria (Wall-rue)



Wall-rue *Asplenium ruta-muraria*

Wall-rue is a plant of similar habitats to Maidenhair Spleenwort but is generally more common and more widespread in the county, especially in VC7 where there is an abundance of stone walls.

Morphologically, the plant is unlike any of the other spleenworts described here. Merryweather * has an interesting illustration of the various spleenworts on P76 of his book (details below). Of the species detailed here it demonstrates how easy they are to tell apart, especially when size is taken into account.

Wall-rue fronds are technically bipinnate or twice-divided although this is not immediately apparent because of the fan or diamond-shaped pinnules (smallest segments). As is the case with all of the spleenworts, the sori are linear but when mature the spores occupy much of the under-surface of the pinnule.

Take heart – even Merryweather states that there are no similar species!

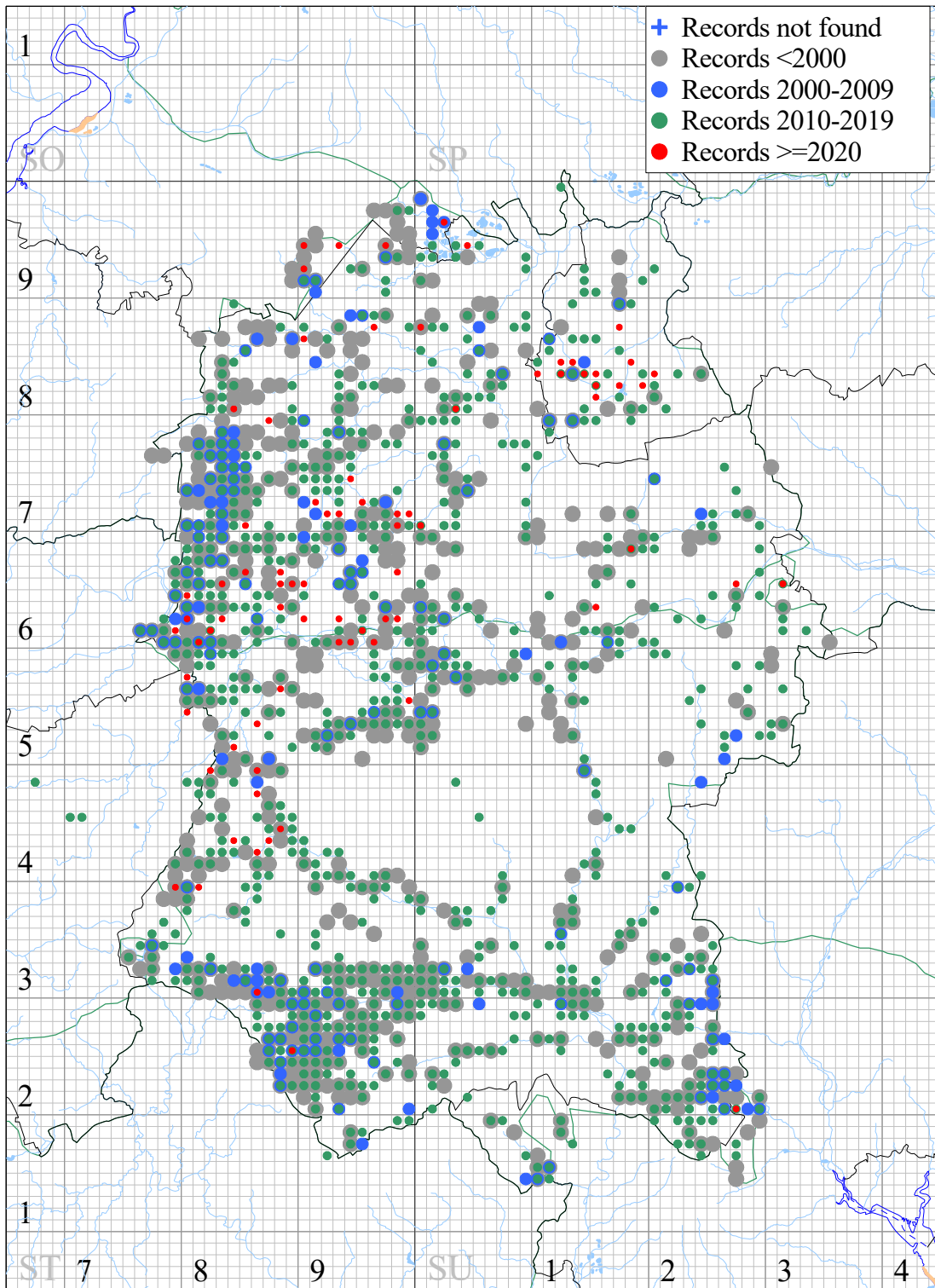
* Merryweather J. 2020, 'Britain's Ferns' – a field guide to the clubmosses, quillworts, horsetails and ferns of Great Britain and Ireland. WildGuides Ltd.

Also very useful and lighter is Merryweather J. 2007, 'The Fern Guide' a field guide to the clubmosses, quillworts, horsetails of the British Isles' AIDGAP / FSC.

Wiltshire records 1980 to 1999 = 316; 2000 to 2020 = 354.



Asplenium scolopendrium (Hart's-tongue)



Hart's-tongue *Asplenium scolopendrium*

This is the simplest and most distinctive of all ferns that cannot be reasoned as anything else having strap-like fronds that are undivided. Although best known from shady woods and ditches it will occur on brick and stone structures; anything from walls, cellar steps, road drains and gullies and even broken gutters and drain-pipes. It is these man-made habitats we are interested in.

Wiltshire records
1980 to 1999 = 835;
2000 to 2020 =
1485



Maiden-hair Spleenwort

Asplenium trichomanes

This small fern grows well on limestone and hence is found most frequently in the north-west of the county on the fringes of the Cotswolds. Like all ferns, water is essential for it to complete its life cycle and thus it is most prolific in sheltered, north-facing situations. It can be found almost anywhere in the county where conditions are suitable because, even in areas of high acidity, it is able to take advantage of mortar used in walls. Most notably, it is absent from Salisbury Plain but has anyone checked the walls of Imber Church? The older the walls the greater the chance that the plant has spread there, so old railway and river bridges make good hunting grounds but, sadly, church walls are all too often relieved of anything that might try to grow there.

Like many of the ferns which grow in or on walls, it is a small plant with fronds rarely more than 10cm

in length and often much less. The pinnae are arranged in pairs along a conspicuously dark rachis which often persists after the pinnae have dropped. The sori are on the under-surface and there can be about eight of these arranged along the branches of the veins. They appear to be longitudinal when immature but, as the spores ripen, so the brownish mass spreads to cover much of the surface of a pinna.

There are no similar species occurring in Wiltshire, but three sub-species are now recognised.

A. trichomanes subsp. *quadrivalens* is the only one that has been recorded so far in Wiltshire. All our records may be for this subspecies, but there is a possibility that others might occur. Fret not: records to species level will be most welcome!

Wiltshire records 1980 to 1999 = 215; 2000 to 2020 = 179

Asplenium trichomanes (Maidenhair Spleenwort)

