

Bittern Countryside

Community Interest Company



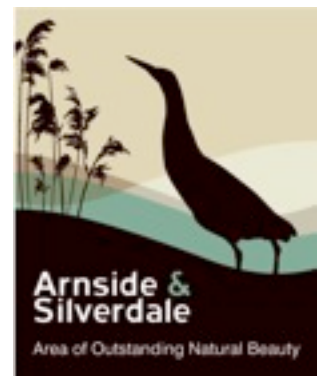
An Atlas and Guide to the Ferns of the Arnside & Silverdale AONB



Supporting the **Arnside & Silverdale** **Area of Outstanding Natural Beauty**

Bittern Countryside Community Interest Company
Registered Office: The Old Station Building, Arnside, LA5 0HG
Registered number 6363720

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An Atlas and Guide to the Ferns of the AONB

Ann Kitchen, September 2013

Why have an Atlas and what is it for?

For over 35 years the flora of the Arnside and Silverdale AONB has been recorded. First by Dr Margaret Baeker and Charles Bromley Webb followed by Julie Clarke who records for the BSBI. Geoffrey Halliday recorded the Cumbrian tetrads (2km squares) and Eric Greenwood those in North Lancashire for their published Floras. Ken and I first got involved when we helped Charles Bromley Webb put all his records onto a computer. Julie and I went on to follow in his footsteps as the botanical recorders for the Arnside and District Natural History Society. Aided by a willing band of amateur botanists we have tried to record every species growing in each one-kilometre square (monad) of the AONB and to record their progress through time. There is still plenty out there to be discovered especially as not all the monads have been surveyed.

This is an attempt to make some of the knowledge we have gained available to the wider public. Ideally it will make you want to go out to look at our flora with a more informed eye. We hope eventually to cover all 950 species of plants found in our area.

This booklet contains maps, help on identification and also habitat photographs. It is not a true wildflower guide. For that you need a proper guide such as “The Flora of the British Isles” by Stace or “The Fern Guide” from the Field Studies Council. A good web site is that of the British Pteridological Society at www.eBPS.org.uk

If you would like to add to the records, a photo together with the date, a grid reference, and site description should be sent to Ann Kitchen at knak@kenak.plus.com.

Photographs by Ken and Ann Kitchen unless otherwise stated.
Edited by Ann Kitchen

All profits from this publication will go towards recording and conserving the flora and fauna of the AONB.



Western (Intermediate)
Polypody at Coldwell Parrock

Ferns propagate by means of spores. Thus they have a 2 part life cycle. The spores germinate to form a tiny plant with male and female organs, either both on the same plant or on separate plants. Once the egg has been fertilised it then goes on to produce a new fern. Similar ferns are linked together here. Rather than divide them into their families, similar looking species are listed together.

Category 1 Page

Very small with a blade and a fertile spike.

<i>Ophioglossum vulgatum</i>	Adder's-tongue	6
<i>Botrychium lunaria</i>	Moonwort	7

Category 2

Small ferns often found in walls and cracks in rock faces.

<i>Adiantum capillus-veneris</i>	Maidenhair Fern	7
<i>Asplenium ruta-muraria</i>	Wall Rue	8
<i>Asplenium trichomanes</i>	Maidenhair Spleenwort	8
<i>Asplenium ceterach</i>	Rusty-back Fern	9
<i>Cystopteris fragilis</i>	Brittle Bladder Fern	9

Category 3

Medium ferns which grow from a creeping rhizome.

<i>Polypodium cambricum</i>	Southern Polypody	10
<i>Polypodium interjectum</i>	Western Polypody	10
<i>Polypodium vulgare</i>	Common Polypody	11
<i>Phegopteris connectilis</i>	Beech Fern	11
<i>Gymnocarpium dryopteris</i>	Oak Fern	12
<i>Gymnocarpium robertianum</i>	Limestone Oak Fern	12

Category 4

Medium ferns which grow in a shuttlecock.

<i>Asplenium scolopendrium</i>	Harts-tongue	13
<i>Asplenium adiantum-nigrum</i>	Black Spleenwort	13
<i>Blechnum spicant</i>	Hard Fern	14

Category 5

Tall ferns which grow from a creeping rhizome

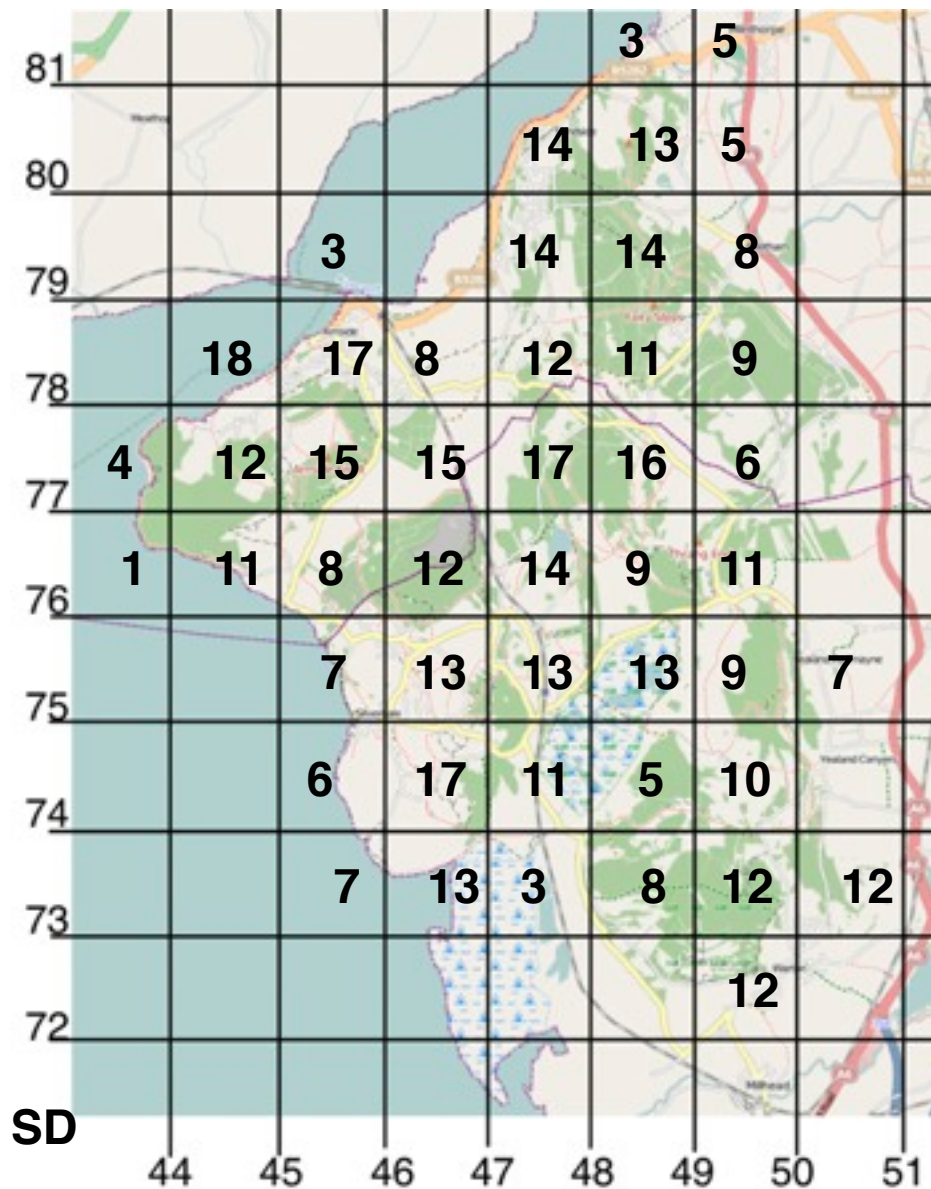
<i>Thelypteris palustris</i>	Marsh Fern	14
<i>Dryopteris carthusiana</i>	Narrow Buckler Fern	15
<i>Pteridium aquilinum</i>	Bracken	15

Category 6

Tall ferns that grow in a shuttlecock.

<i>Oreopteris limbosperma</i>	Lemon-scented Fern	16
<i>Athyrium filix-femina</i>	Lady Fern	16
<i>Dryopteris filix-mas</i>	Male Fern	17
<i>Dryopteris affinis</i>	Scaly Male Fern	17
<i>Dryopteris dilatata</i>	Broad Buckler Fern	18
<i>Dryopteris submontana</i>	Rigid Buckler Fern	18
<i>Polystichum aculeatum</i>	Hard Shield Fern	19
<i>Polystichum setiferum</i>	Soft Shield Fern	19

Number of fern species in each monad

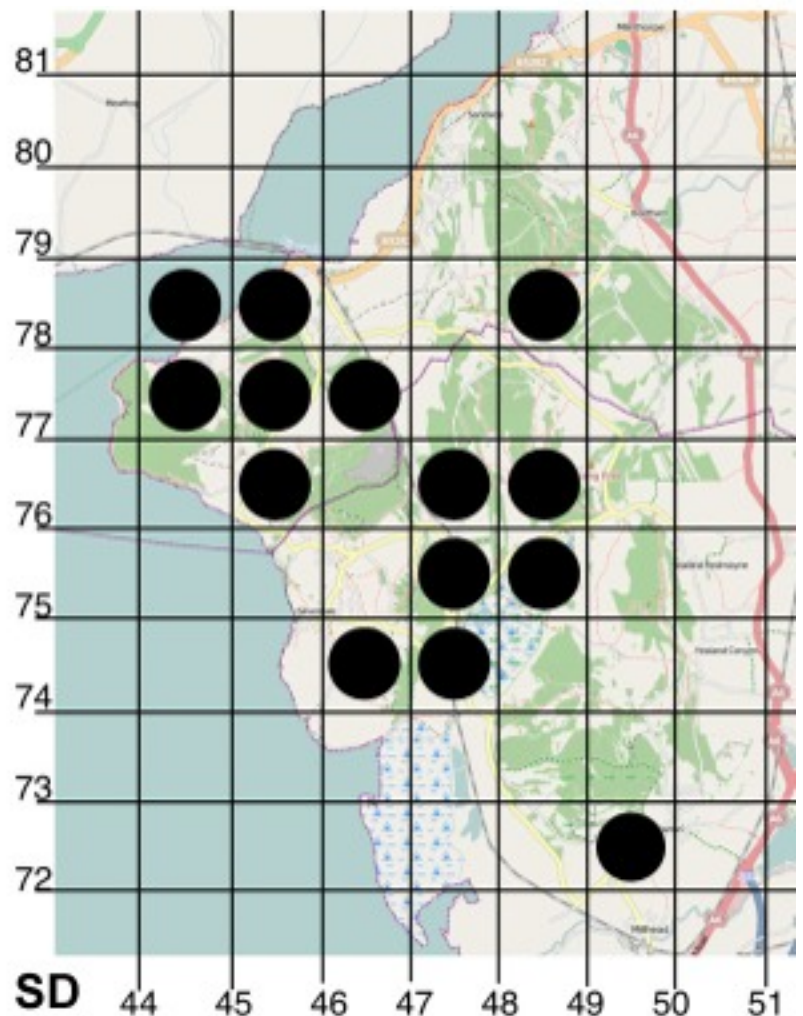


It is meaningful to show those monads with the widest diversity of ferns so this information is given above.

The following alphabetical list gives the number of monads in which the species is present. These plants are all well recorded in the AONB so this information is meaningful.

Scientific Name	Common Name	No of monads	Page
<i>Adiantum capillus-veneris</i>	Maidenhair Fern	1	7
<i>Asplenium adiantum-nigrum</i>	Black Spleenwort	14	13
<i>Asplenium ceterach</i>	Rusty-back Fern	16	9
<i>Asplenium ruta-muraria</i>	Wall Rue	35	8
<i>Asplenium scolopendrium</i>	Harts-tongue	44	13
<i>Asplenium trichomanes</i>	Maidenhair Spleenwort	38	8
<i>Athyrium filix-femina</i>	Lady Fern	23	16
<i>Blechnum spicant</i>	Hard Fern	11	14
<i>Botrychium lunaria</i>	Moonwort	4	7
<i>Cystopteris fragilis</i>	Brittle Bladder Fern	13	9
<i>Dryopteris affinis</i>	Scaly Male Fern	25	17
<i>Dryopteris carthusiana</i>	Narrow Buckler Fern	7	15
<i>Dryopteris dilatata</i>	Broad Buckler Fern	34	18
<i>Dryopteris filix-mas</i>	Male Fern	40	17
<i>Dryopteris submontana</i>	Rigid Buckler Fern	7	18
<i>Gymnocarpium dryopteris</i>	Oak Fern	1	12
<i>Gymnocarpium robertianum</i>	Limestone Oak Fern	7	12
<i>Ophioglossum vulgatum</i>	Adder's-tongue	13	6
<i>Oreopteris limbosperma</i>	Lemon-scented Fern	5	16
<i>Phegopteris connectilis</i>	Beech Fern	4	11
<i>Polypodium cambricum</i>	Southern Polypody	3	10
<i>Polypodium interjectum</i>	Western Polypody	22	10
<i>Polypodium vulgare</i>	Common Polypody	26	11
<i>Polystichum aculeatum</i>	Hard Shield Fern	27	19
<i>Polystichum setiferum</i>	Soft Shield Fern	24	19
<i>Pteridium aquilinum</i>	Bracken	40	15
<i>Thelypteris palustris</i>	Marsh Fern	1	14

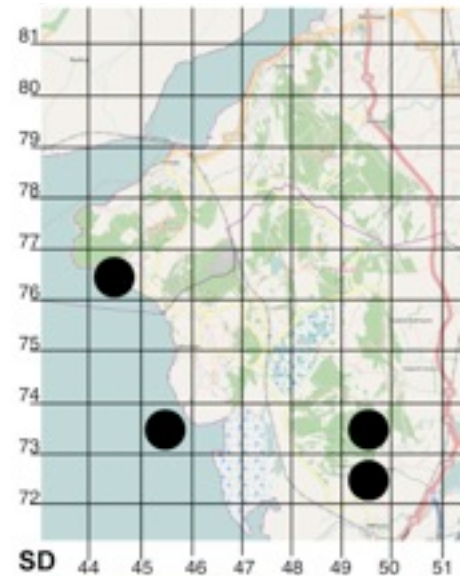
The picture to the right is taken of a spike struggling to get through a load of topsoil that had been dumped on the only patch of Adder's-tongue in Arnside Cemetery in 2009. That patch has now disappeared. Others have gone the same way. Try Hawes Water at SD478766 or Heald Brow at SD469747 in June or July.



***Botrychium lunaria* - Moonwort**



Another of our unmistakeable ferns. It has a fertile spike and a segmented non-fertile blade. It is tiny and very hard to pick out in the grassland. It likes dry places and rock ledges. It has been recorded in only four of our tetrads but this may be because it is so hard to spot. Try Warton Crag, Potts Wood at SD497728.



***Adiantum capillus-veneris* - Maidenhair Fern**

This very rare fern is found in only one place in the AONB at SD451784. It grows at a few other spots around Morecambe Bay but otherwise it is mainly found in Devon and Cornwall.

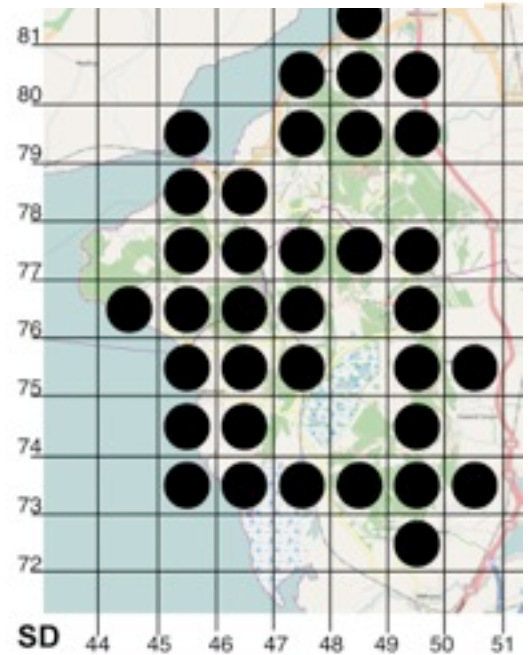
Its delicate fronds are wintergreen and it seems to cope with the brackish water from very high tides. It likes to grow in spots where there is always plenty of moisture.

As you can see from the icicles in the picture the water always runs down this particular rock face by the Coastguards' Station at Arnside.



Asplenium ruta-muraria - Wall Rue

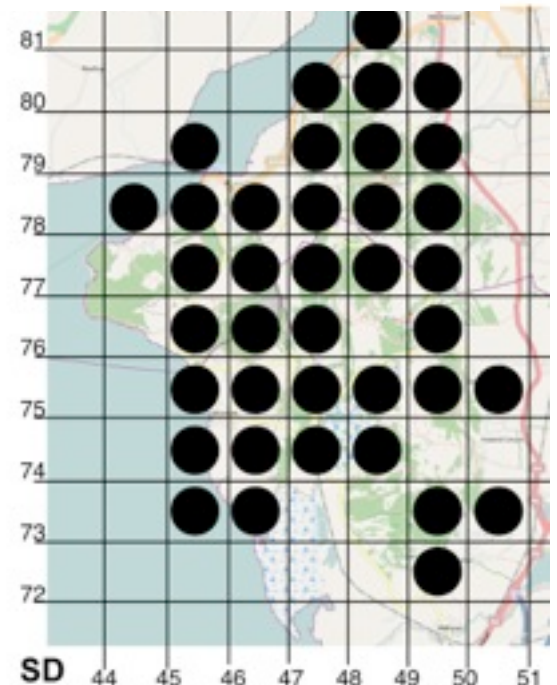
This tiny fern is found on most of the dry stone walls of the AONB. It is wintergreen and can also withstand the salt laden winds of winter.



Asplenium trichomanes - Maidenhair Spleenwort

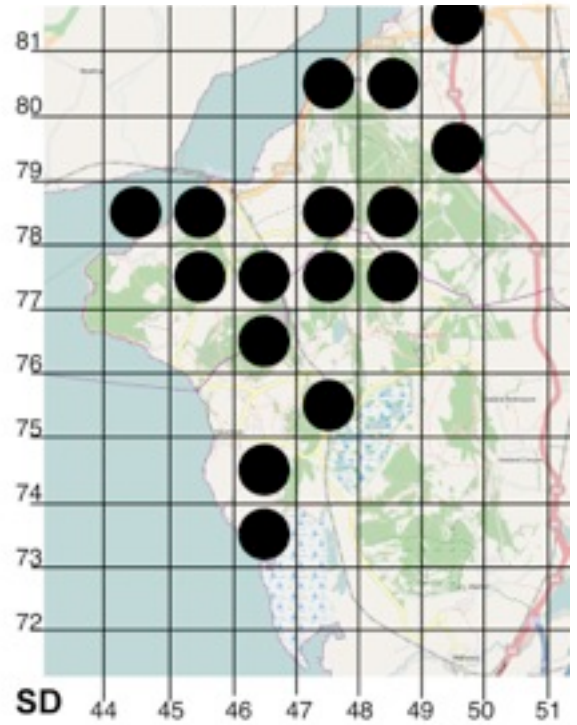
Although it is called Maidenhair Spleenwort it is not related to the Maidenhair Fern.

This wiry little fern is often found on walls next to Wall Rue. Both Maidenhair Spleenwort and Wall Rue can be found on the walls of Arnside Cemetery at SD460776. It is also common on limestone pavement and on rock outcrops.



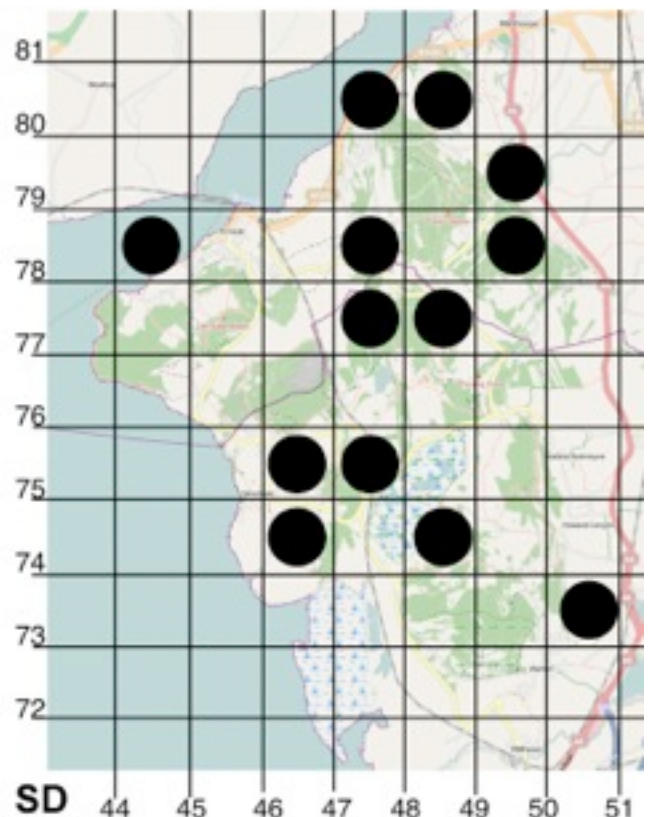
***Asplenium ceterach* - Rusty-back Fern**

Also called *Ceterach officinarum*, this is found in many of the garden walls along Arnside Promenade at SD455786. The rusty hairs on the back of the small leathery leaves make it easy to recognise. In dry weather they almost disappear but spring into life at the first signs of moisture.



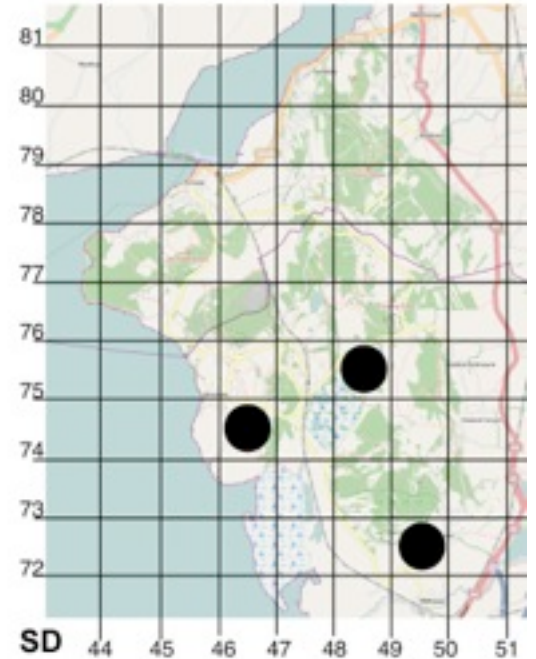
***Cystopteris fragilis* - Brittle Bladder Fern**

This beautiful delicate little fern likes limestone cracks and crevices in walls and crags. It is not wintergreen. It can grow up to 30 cm in length but is usually much smaller. It grows in tufts but can form quite a large patch. Look for it near Creep-i-th-Call Bridge at SD474779 or around Silverdale at SD461747.



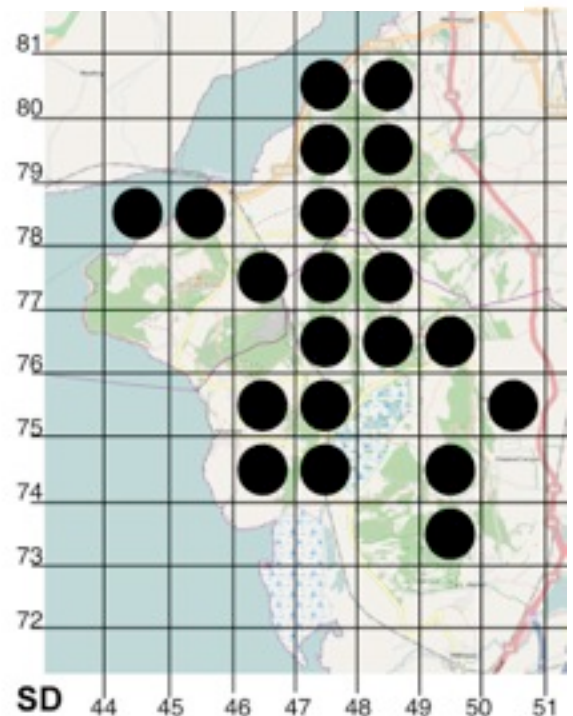
***Polypodium cambricum* - Southern Polypody**

This is the rarest of our polypodies. It has much larger and sometimes multi-pinnate fronds. Look for it in Trowbarrow at SD480758. It has bright yellow spores. It is at its best in winter or early spring dying down in the summer. It needs base rich soils often on steep cliffs.



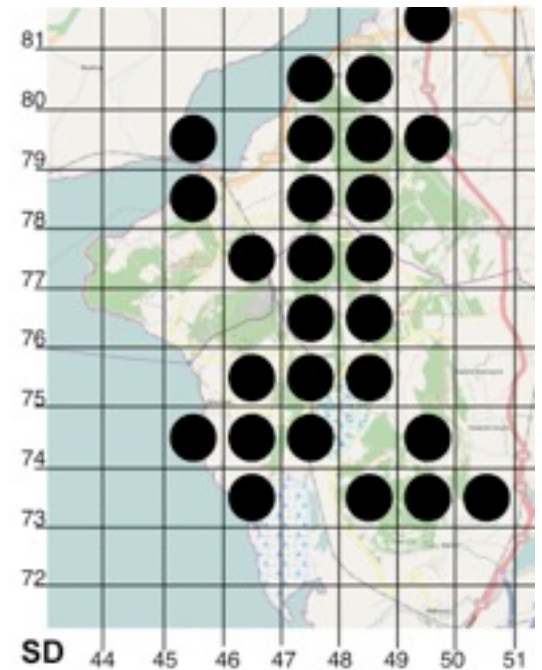
***Polypodium interjectum* - Western Polypody**

Sometimes called Intermediate Polypody this is often found with Common Polypody and can be difficult to tell apart. The lowest pinnae tend to bend forwards and the outline of the frond is widest towards the middle. The pinnae can be toothed and have pointed tips. Look at the walls in the Burton Well to Redbridge area at SD474757.



***Polypodium vulgare* - Common Polypody**

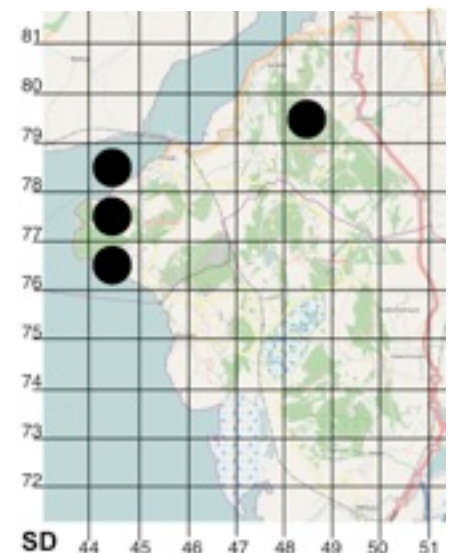
The frond is much more oblong with the lowest pinnae flat and almost as long as the next. The spore cases are a darker brown when ripe. It is equally happy on rocks, trees and banks unlike the Western Polypody which prefers calcareous rocks. Look on the walls opposite the chapel at Arnside Cemetery at SD460776.



***Phegopteris connectilis* - Beech Fern**

This bright green fern forms large patches on the woodland floor. It grows from slender creeping rootstocks in individual fronds which are close enough to form a carpet. The name Beech Fern does not mean any particular association with the beech tree. The blades of the fern are almost bent at rightangles to the stalk so they lie parallel to the ground. This makes them appear closer together than they really are. It likes damp soils in acidic woodland, the main reason why it is not found more widely in our area.

The best place to find it is on the side of Arnside Knott in Copridging Wood at SD447770.



***Gymnocarpium dryopteris* - Oak Fern**

Oak Fern is found only in Arnside Park below the Knott. It is abundant there. Look around SD445769 under the trees. It forms large patches.

It enjoys damp woodland and slightly acidic soils which may explain its scarcity in our area. It is a bright green fern with its 2 lower pinnae the same length as the rest of the frond. When young the two large pinnae and the upper part of the frond roll up into 3 separate balls.

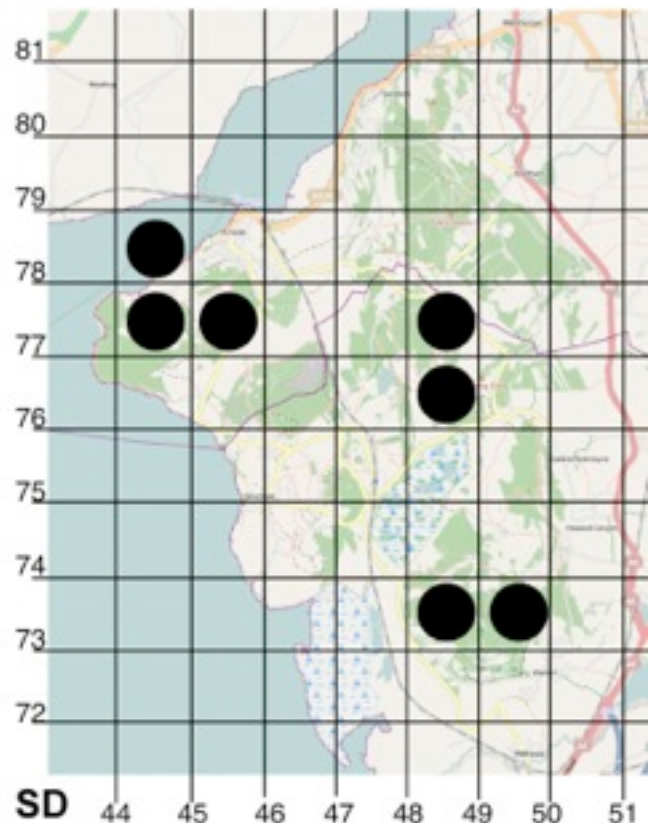


***Gymnocarpium robertianum* - Limestone Oak Fern**

This lime lover is more widely found in the AONB. It is a duller yellow green and in bud it is rolled into a single ball. It likes open limestone slopes. Look just below the toposcope on the Knott at SD451774. It is easily hidden in the grass so you will have to look hard. You can also find it in the lower pasture at SD450776.

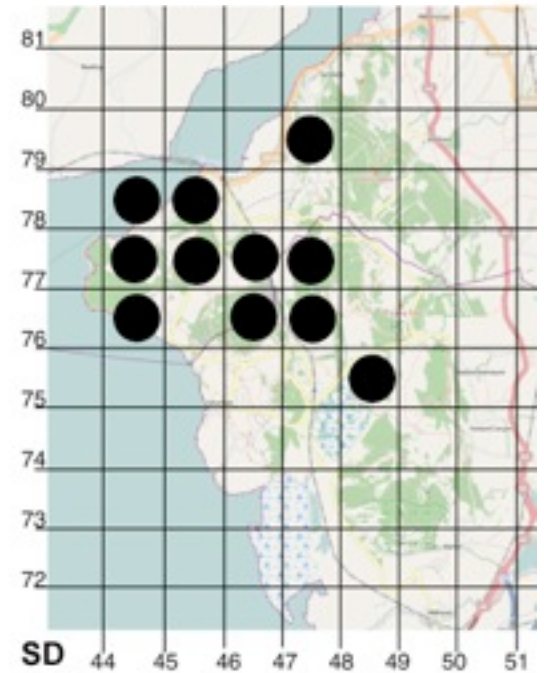


Below toposcope, Arnside Knott



***Blechnum spicant* - Hard Fern**

This is one of the few ferns where there are fertile and non-fertile fronds. These can look almost distorted. It likes acidic soils. It can be seen at several sites on Arnside Knott. Try SD454776.



***Thelypteris palustris* - Marsh Fern**

Marsh Fern also has fertile and sterile fronds. It grows in waterlogged places.

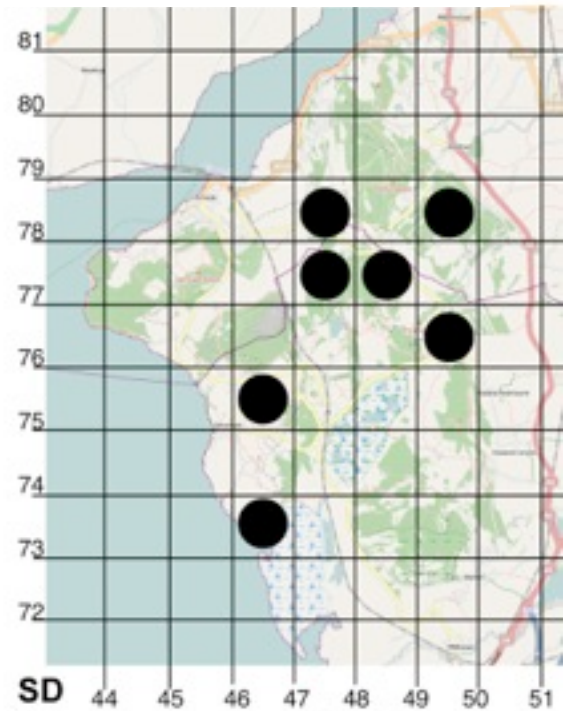
This is found in only one place in the AONB, off Guard Hill near Carr Bank. The site is privately owned but it is hoped that it may become a reserve. Contact the AONB office if you want to visit.



***Dryopteris carthusiana* - Narrow Buckler Fern**

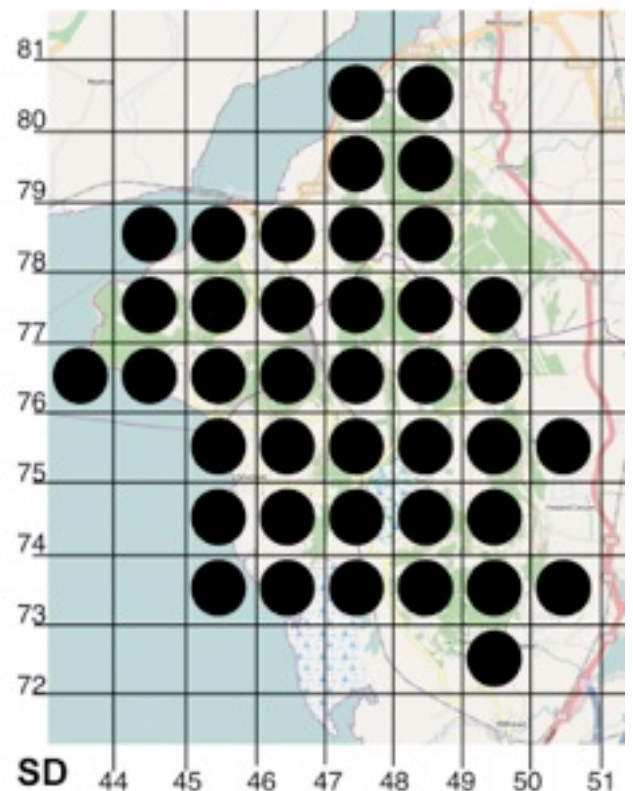
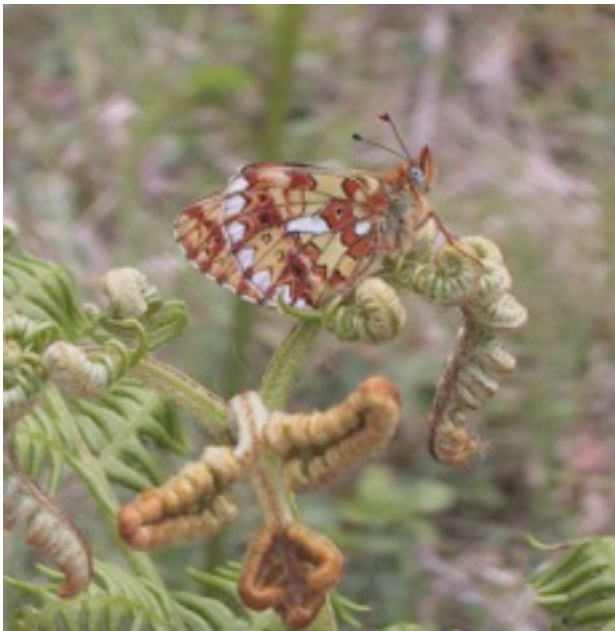
This grows on creeping rhizomes. Its stem is around the same length as the blade of the frond. The pinnae are also well spaced out. It is not nearly as common as Broad Buckler Fern.

It can be found at Teddy Heights at SD474789 or at Heald Brow.



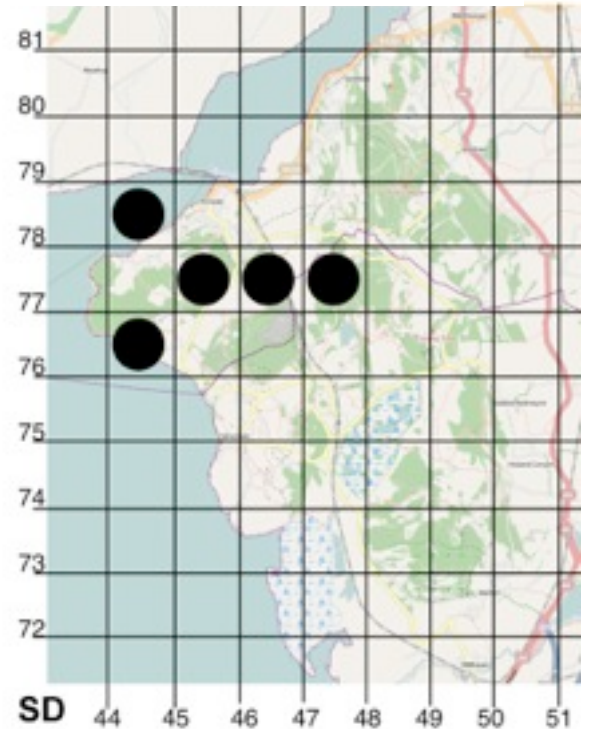
***Pteridium aquilinum* - Bracken**

Another of the common ferns that needs no description. You can find it all over the AONB. It can be a thug in the wrong place but is also needed by some of our iconic butterflies.



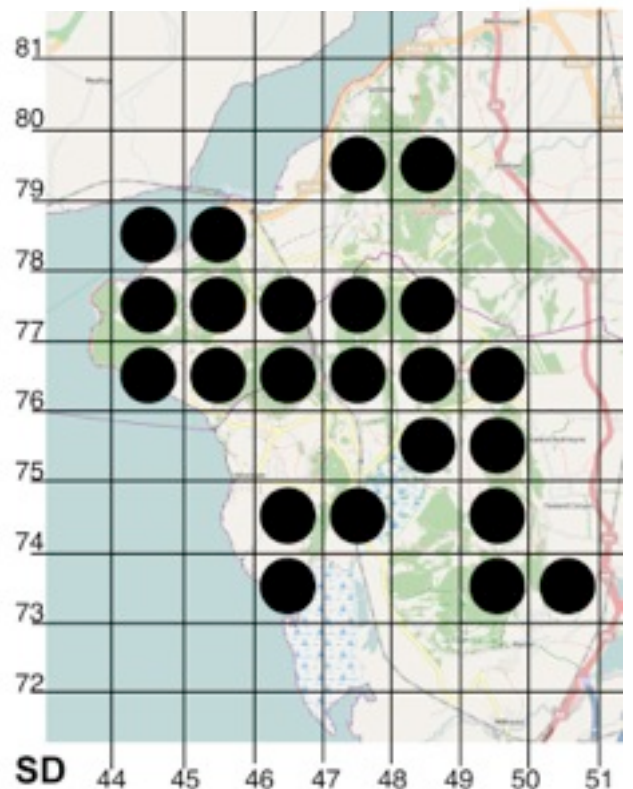
Oreopteris limbosperma - Lemon-scented Fern

This is one of the ferns that is easily confused with the Male Fern. It has the same habit of forming a large crown on top of its short rhizome. It can be identified by its more widely spaced pinna, the fact that the lower pinnae are much shorter than those higher up the blade and its sori are round the edge of the pinnae. The crushed young fronds give off a lemon smell. It can be found on the Knott at SD454776.



Athyrium filix-femina - Lady Fern

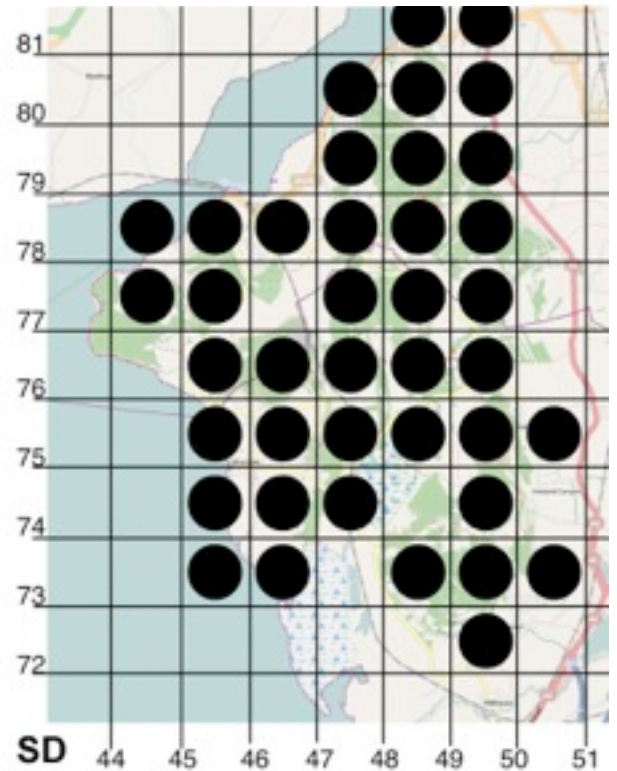
A very lacy looking fern. It likes acid to neutral soil and so is most often found in the deep soils of woodlands. The indusia vary from crescent shaped to hooked and darken to a rich brown when ripe from July to November. Look in Grubbins Wood all along the lower path at SD446779.



***Dryopteris filix-mas* - Male Fern**

This is a very common fern. It is not wintergreen and grows up from a crown to form a large plant.

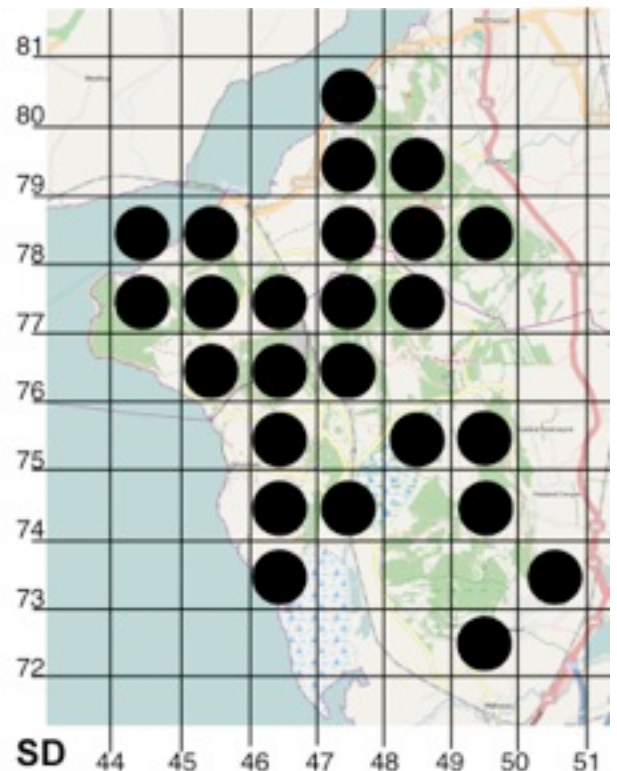
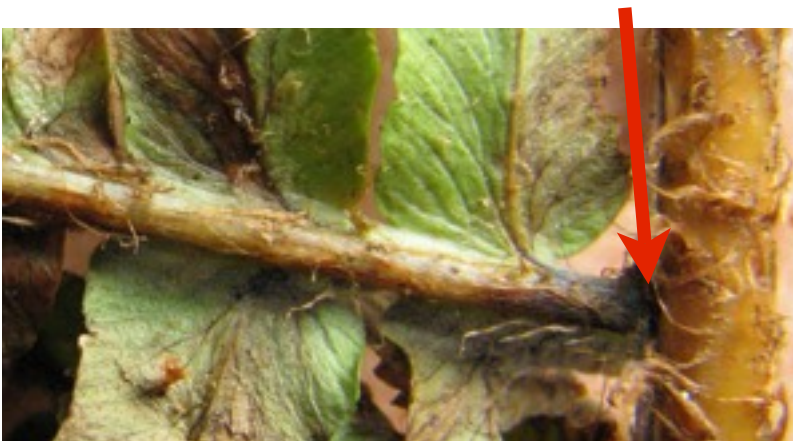
The pinnules have rounded tips and are equally toothed all round. Eaves Wood at SD470760 is among one of the many spots to find it.



***Dryopteris affinis* - Scaly Male Fern**

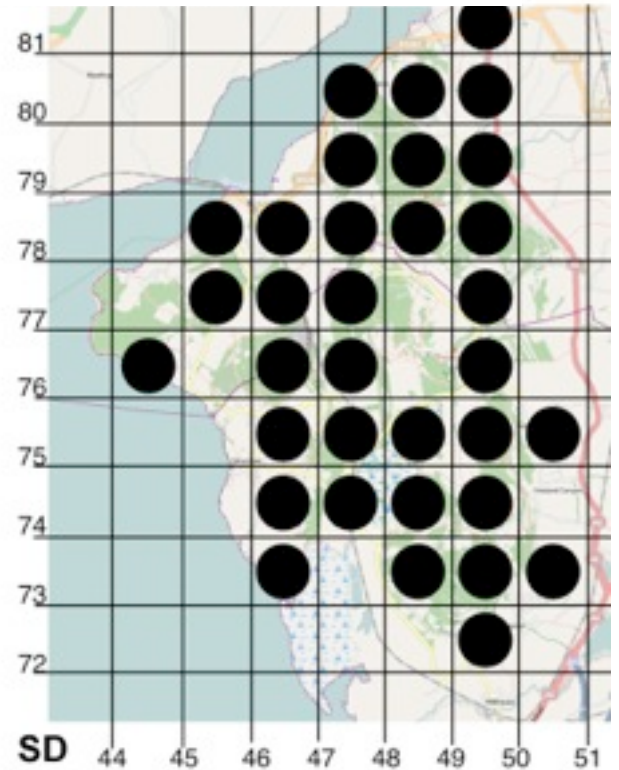
This has stems which are much scaly. The pinnules are more or less straight sided. Each pinna has a small black spot underneath just where it joins the main midrib as shown below. The golden opening fronds are very noticeable in the spring but some fronds may overwinter. Again it is plentiful in Eaves Wood. Look around SD470762.

Black Spot



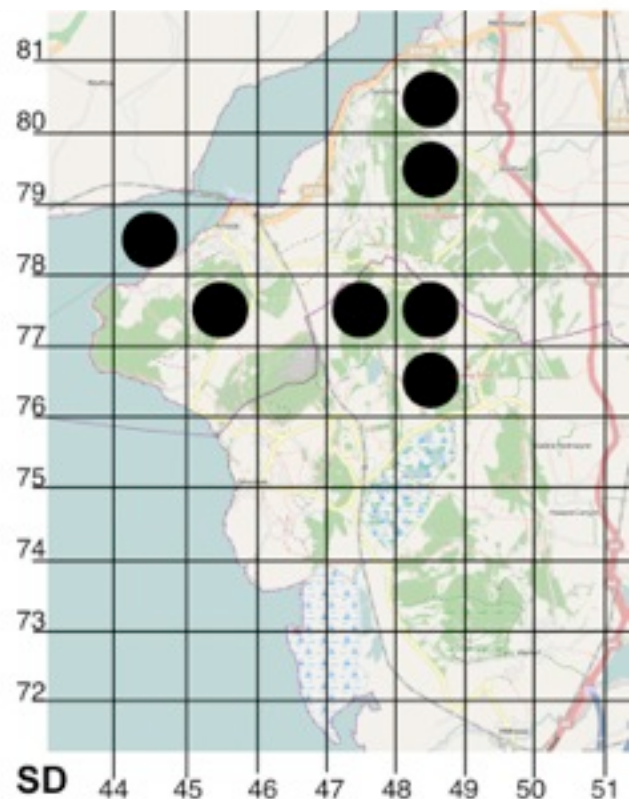
***Dryopteris dilatata* - Broad Buckler Fern**

The most common of our Buckler Ferns. The fronds are triangular in outline and arch outwards. The scales on the stems are pointed with a dark brown rib down the middle. The lowest pinnae are asymmetric, see below. This occurs in all our woods but again Eaves Wood is a good place to look at SD470760.



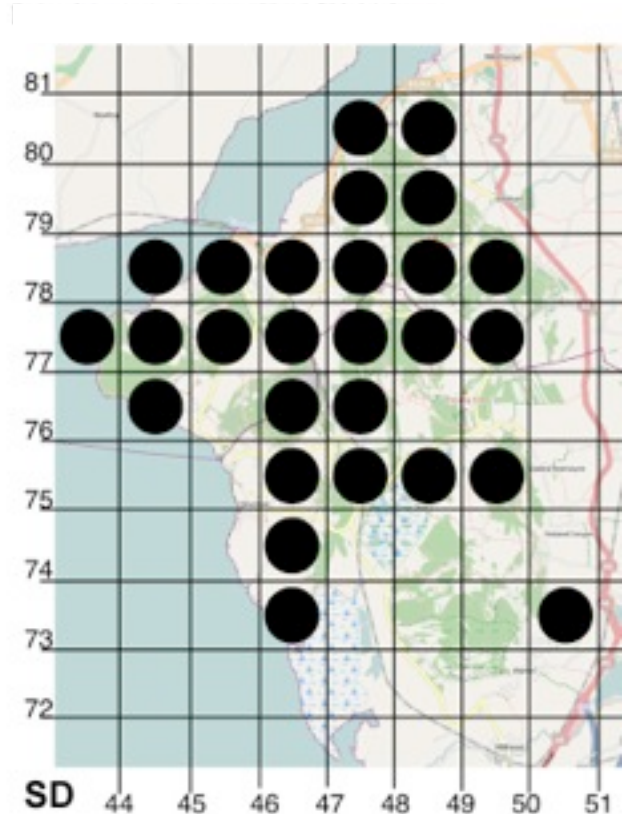
***Dryopteris submontana* - Rigid Buckler Fern**

This is a plant of limestone pavements and is easily found at Gait Barrows at SD482770 with its fronds sticking up from the grikes. It is not a common plant. The lower stem is covered with shaggy scales and the lowest pinnae are not markedly asymmetric. The surfaces of the pinnae have stalked balsam scented glands on them. It is also found on Arnside Knott.



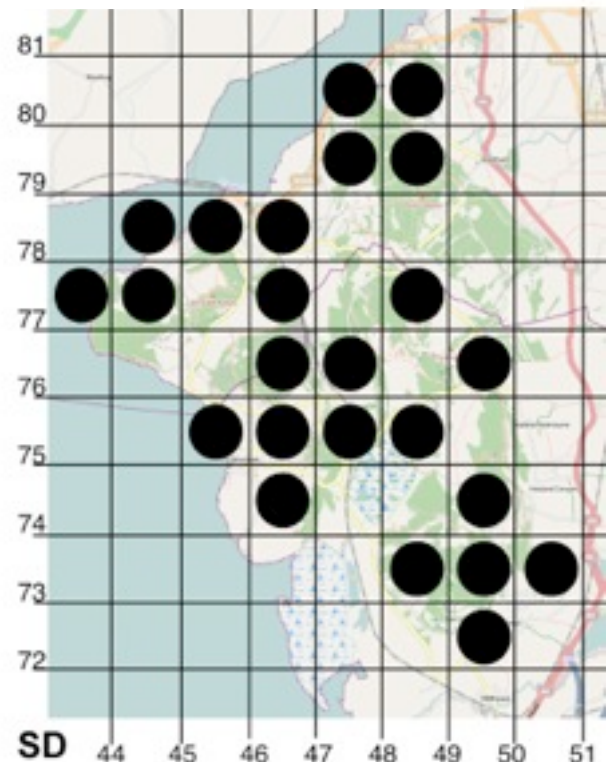
***Polystichum aculeatum* - Hard Shield Fern**

One of our common wintergreen ferns, the fronds darken and become even more leathery to the touch as the year progresses. They also have a pronounced bend to them. Look in any woodland or try SD483805.



***Polystichum setiferum* - Soft Shield Fern**

While superficially similar this is not really wintergreen and the fronds are soft to the touch. The stems are densely scaly. The picture shows how pinnae unroll individually. It is common in all the woodlands but likes alkaline soils. Look at Beachwood at SD450783.





View from Coldwell Parrock



Redhills Wood



Trowbarrow



Footpath from The Row



Tower Farm