

Bittern Countryside

Community Interest Company



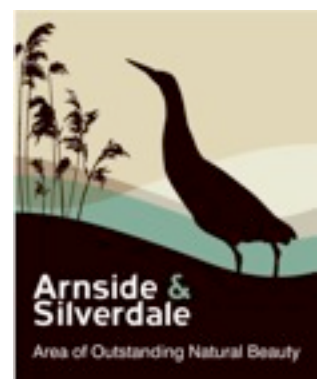
An Atlas and Guide to the Rushes of the Arnside & Silverdale AONB



Supporting the Arnside & Silverdale Area of Outstanding Natural Beauty

Bittern Countryside Community Interest Company
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Registered number 6363720

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Website: <http://www.arnsidesilverdaleaonb.org.uk/AONB/Support/Bittern-Countryside-CIC.html>

An Atlas and Guide to the Rushes of the AONB

Ann Kitchen, February 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 the Lancashire ones for their 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 its progress through time. I suspect that there is still plenty out there to be discovered. We have not managed to cover all the squares.

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 shots. 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 “Wild Flowers of Britain and Ireland” by Blamey, Fitter & Fitter.

If you would like to add to our 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 Ann and Ken Kitchen



Looking over Arnside Moss

Rushes are often confused with sedges and grasses. All three and the lily family had common ancestors but the rushes and the lilies are closer in structure than the others. They have six perianth segments, 3 or 6 stamens and 3 or 6 stigmas, just like the lilies and tulips. Similar rushes are linked together here. They really fall into 5 categories.

Category 1

Around 50 to 100 cm tall with flowers appearing to come from the top of the stem. They have leaves growing up the stems.

		Page Number
<i>Juncus acutiflorus</i>	Sharp-flowered Rush	5
<i>Juncus articulatus</i>	Jointed Rush	6
<i>Juncus subnodulosus</i>	Blunt-flowered Rush	7

Category 2

Around 80 to 150 cm tall with flowers appearing to come out of the side of the stems.

<i>Juncus inflexus</i>	Hard Rush	8
<i>Juncus effusus</i>	Soft Rush	9
<i>Juncus conglomeratus</i>	Compact Rush	10

Category 3

All around 20 to 80 cm tall with flowers appearing to come from the top of the stem.

<i>Juncus bufonius</i>	Toad Rush	11
<i>Juncus bulbosus</i>	Bulbous Rush	12
<i>Juncus tenuis</i>	Slender Rush	13

Category 4

Up to 100 cm tall forming large patches always by sea coasts and salt-marshes.

<i>Juncus maritimus</i>	Sea Rush	14
<i>Juncus gerardii</i>	Saltmarsh Rush	15

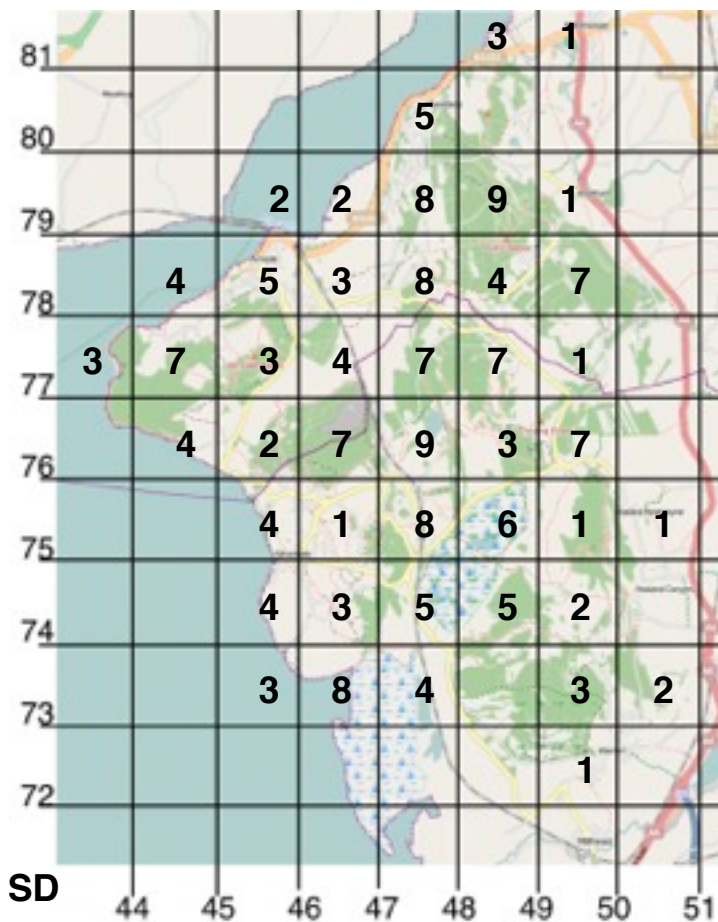
Category 5

Hairy leaves. Unlike the *Juncus* which have many seeds in each capsule, the wood-rushes have only three large seeds.

<i>Luzula campestre</i>	Field Wood-rush	16
<i>Luzula multiflora</i>	Heath Wood-rush	17
<i>Luzula pilosa</i>	Hairy Wood-rush	18
<i>Luzula sylvatica</i>	Great Wood-rush	10

The following alphabetical list gives the number of monads in which the species is present. The rushes are a well defined family and are all well recorded in the AONB so this information is meaningful.

Scientific Name	Common Name	Number of Monads	Page
<i>Juncus acutiflorus</i>	Sharp-flowered Rush	12	5
<i>Juncus articulatus</i>	Jointed Rush	11	6
<i>Juncus bufonius</i>	Toad Rush	20	11
<i>Juncus bulbosus</i>	Bulbous Rush	6	12
<i>Juncus conglomeratus</i>	Compact Rush	13	10
<i>Juncus effusus</i>	Soft Rush	27	9
<i>Juncus gerardii</i>	Saltmarsh Rush	13	15
<i>Juncus inflexus</i>	Hard Rush	18	8
<i>Juncus maritimus</i>	Sea Rush	10	14
<i>Juncus subnodulosus</i>	Blunt-flowered Rush	2	7
<i>Juncus tenuis</i>	Slender Rush	14	13
<i>Luzula campestris</i>	Field Wood-rush	30	16
<i>Luzula multiflora</i>	Heath Wood-rush	5	17
<i>Luzula pilosa</i>	Hairy Wood-rush	3	18
<i>Luzula sylvestris</i>	Great Wood-rush	2	19



Number of rush species in each monad

Again this information will not necessarily be given for other guides with more varied species, but it is meaningful here to show those monads with the widest diversity of rushes and so has been included.

Juncus acutiflorus - Sharp-flowered Rush

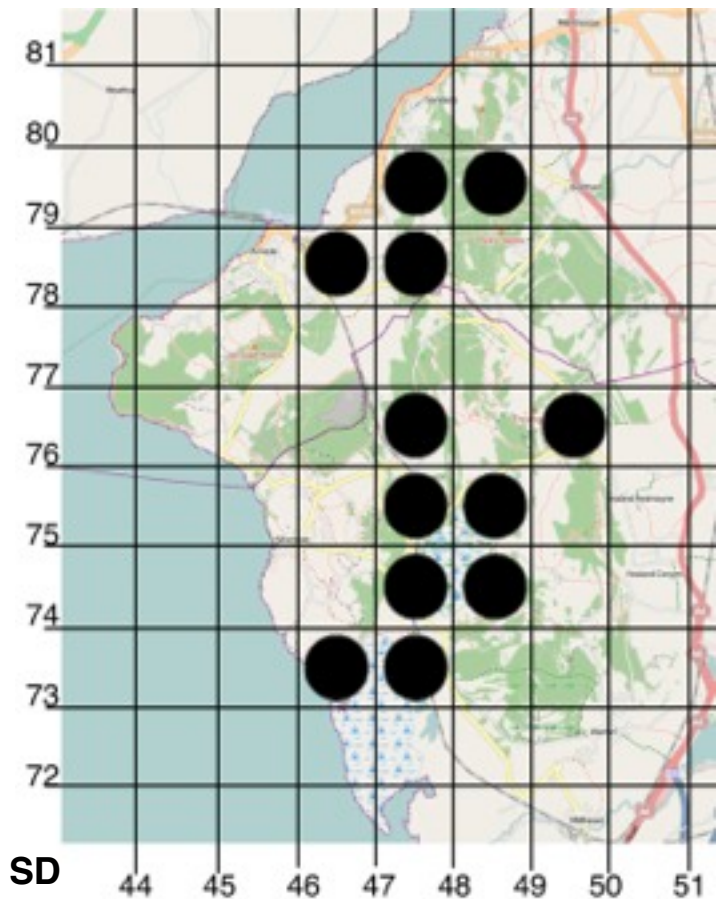


The Sharp-flowered Rush likes wet grassy areas such as the fields going to Hazelslack from Storth Lane End (SD473786). It can also be found in Lambert's Meadow.

The flowers are greeny-brown and the petal-like tepals are sharply pointed. The fruit is also very sharp and three sided and the leaves are circular and hollow with cross partitions.

It has far reaching rhizomes that also form large patches. It flowers in summer, July to August.

It has been found in all the wet mosses. It is probably in some other squares but not all are easy to access.



Arnside Moss

Juncus subnodulosus - Blunt-flowered Rush



Blunt-flowered Rush also has its flowers coming out of the top of its stem. It is much rarer and again likes peat and fen land.

The creeping rhizomes make great swards of bright green stems, each with one or two leaves.

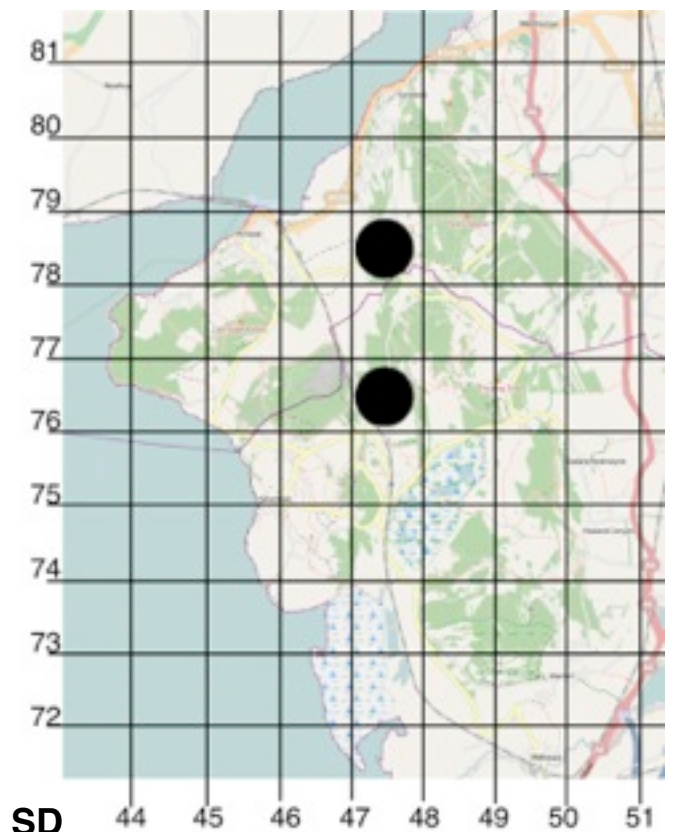


The leaves are round and hollow and subdivided but unlike *Juncus articulatus* the divisions run both lengthways and across.

Look for it at Challon Hall and also near Hazelslack at SD474784.



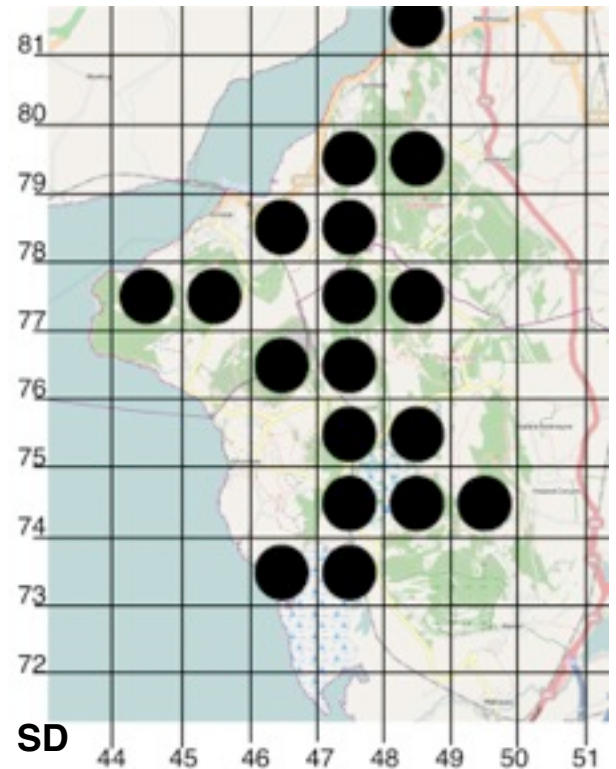
Challon Hall meadow near Hawes Water



Juncus inflexus - Hard Rush



This is more common on alkaline soils. The stem is ridged, a grey-green colour and has occasional gaps in the pith inside the stem. It can be found in most of our squares, growing in drier conditions than many of the other rushes.



The meadow at Grubbins Wood by New Barns, Trowbarrow and Arnside Moss are places where it is plentiful.



Trowbarrow Quarry

Juncus effusus - Soft Rush



This is very common in the AONB. The stem is a much lighter green than the Hard rush and it is unridged.

The style at the top of the fruit drops off as the fruit ripens.

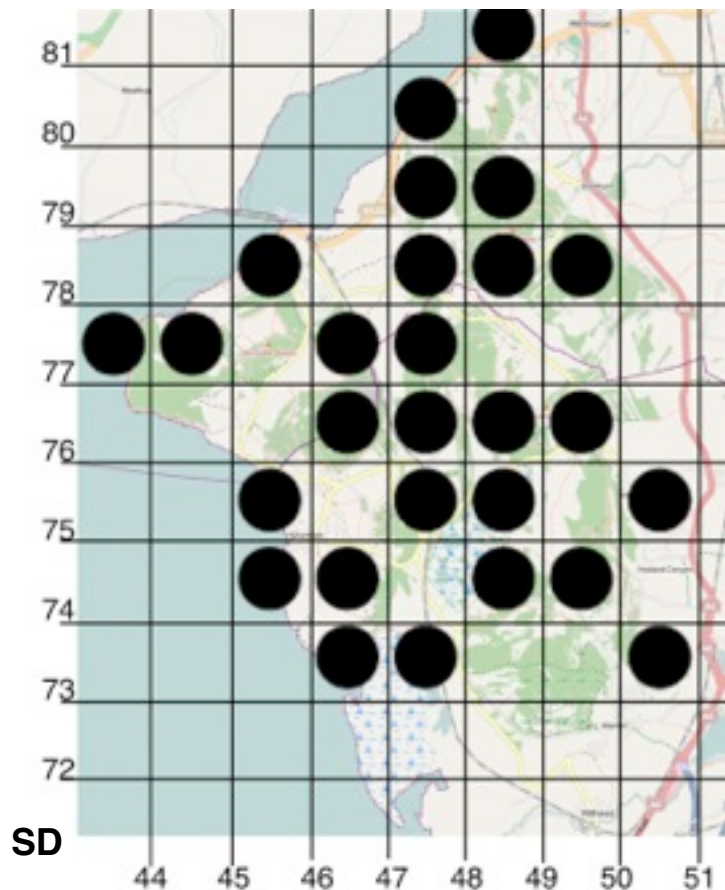
The pith inside the stem is unbroken. The flowers may come out in a tight head or on longer stems.

Look for this in most damp fields in the AONB.

Challon Hall fields and the path to Allan Hide at Leighton Moss are but two of many.



Leighton Moss

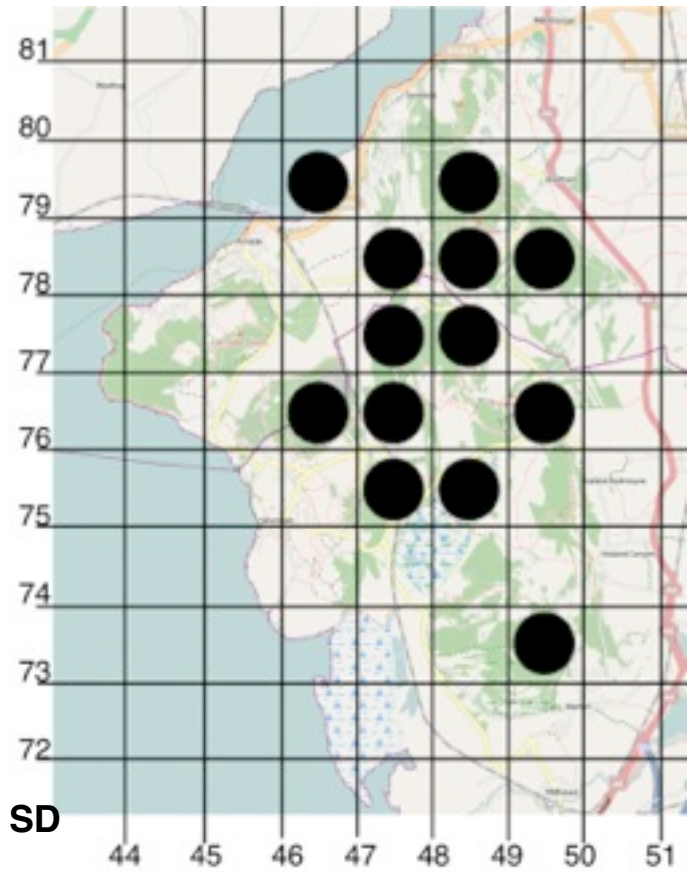


Juncus conglomeratus - Compact Rush



This is very common on acid soils. The stem is ridged like the Hard Rush but it has no holes in the pith.

There is plenty in Thrang Moss meadow at SD496766, Silverdale Moss or on the back path to the Lower Hide at Leighton Moss.



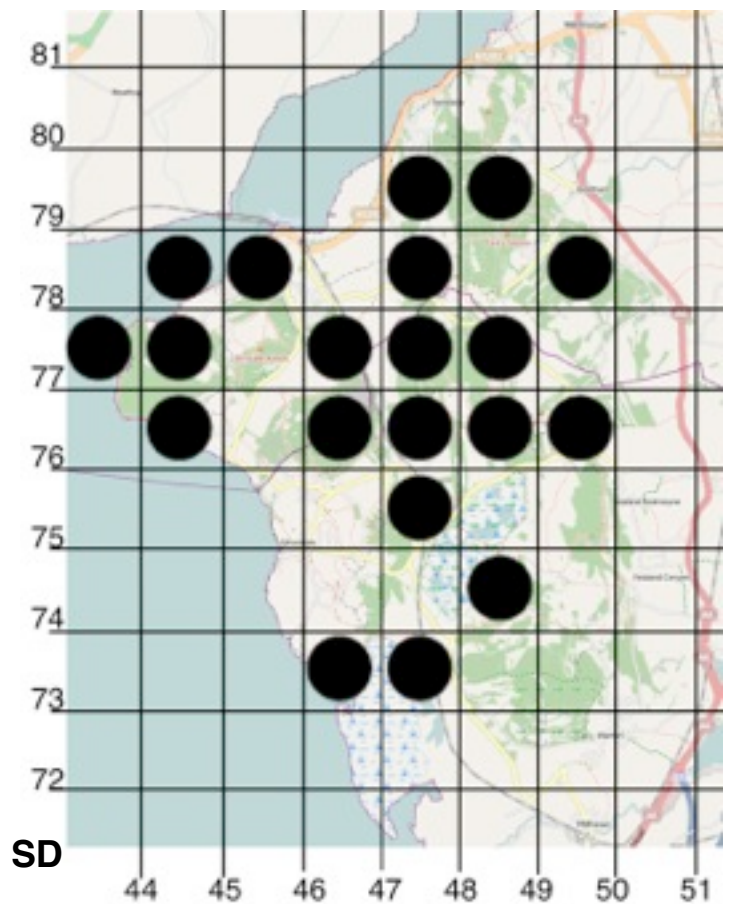
Field at corner of Storth Road and Coldwell Lane

Juncus bufonius - Toad Rush

This is an annual with greenish white flowers. It grows on disturbed areas around ponds and other damp places. Most of the leaves come from the base which often has a reddish tinge.

It is very common on Arnside shore but can also be found inland at Dogslack (SD472755) and Hawes Water.

(*Juncus ranarius*, Frog Rush may be present in marshy areas but it is easily confused and has not yet been recorded by the Society)



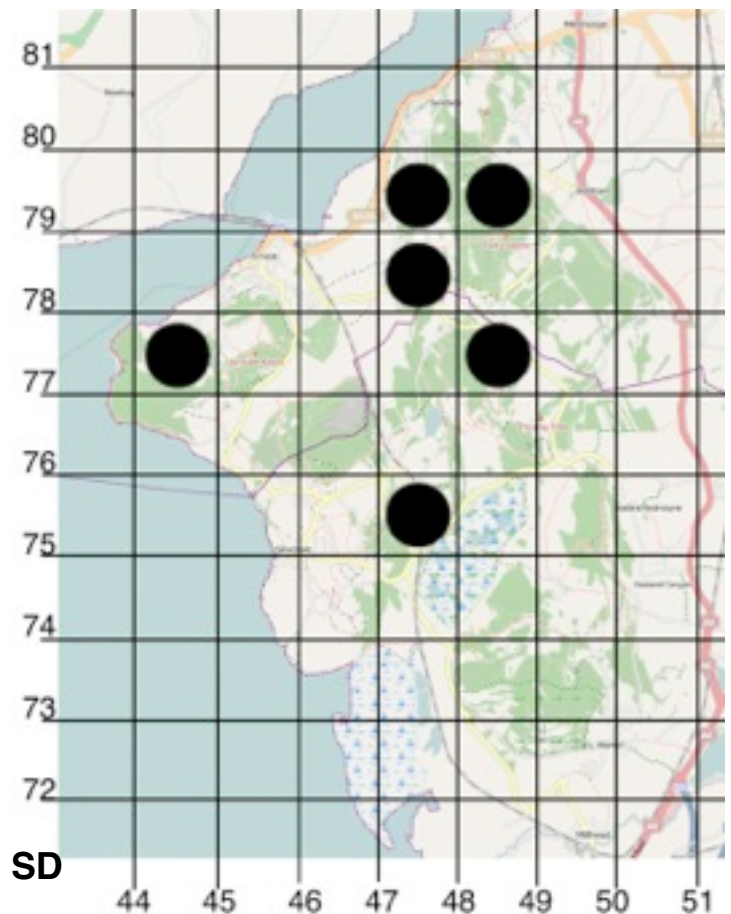
In the sea wall below Ashmeadow

Juncus bulbosus - Bulbous Rush



This has round leaves with many cross-sections. It swells to a bulb at its base. It is much happier by boggy pools and mosses and can often be found floating. It occurs only on acid soils. The seeds often start to shoot before they leave the parent plant.

Look for this at New Barns or at the path to Hazelslack from Storth Road end (SD473783).

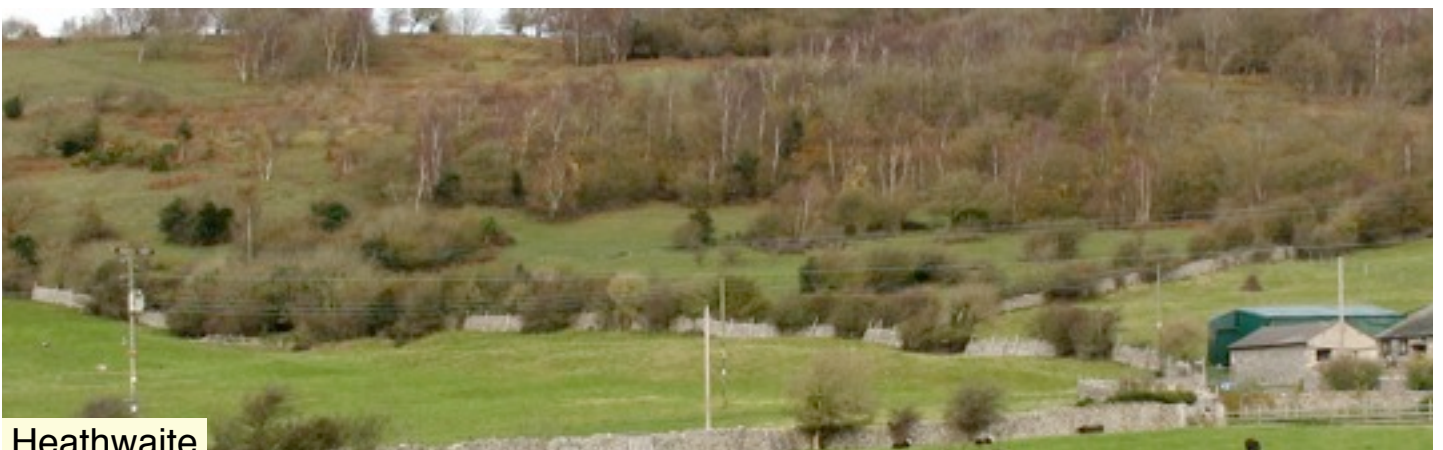
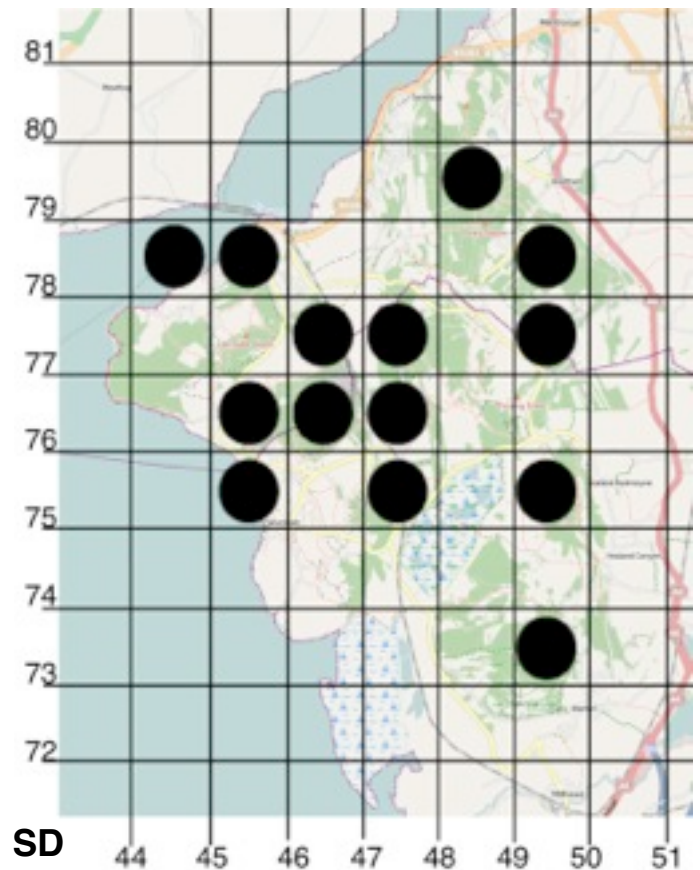


New Barns Bay

Juncus tenuis - Slender Rush



A very delicate rush that is easily overlooked. In fact it seems to enjoy being trampled on and is found on many of the footpaths in the AONB. Unlike the two previous rushes its 2 lowest bracts are much longer than the flowering stem. It is almost certainly under-recorded. Warton Crag, Cringlebarrow field and Eaves Wood all have it in plenty. It can also be seen on the lower slopes of Heathwaite.

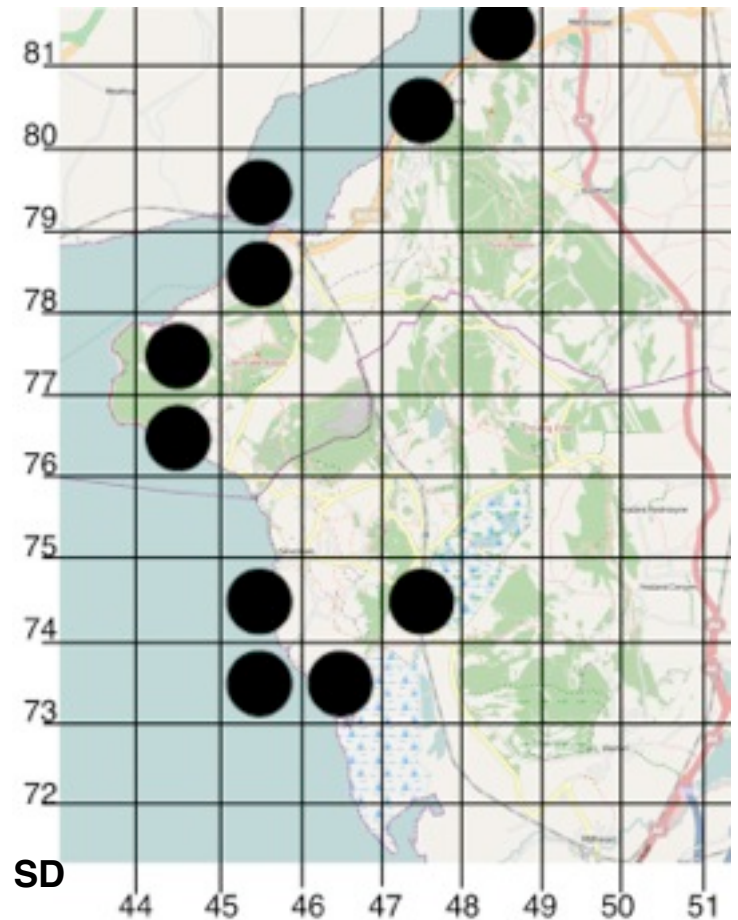


Heathwaite

Juncus maritimus - Sea Rush

This rush is very similar at first glance to Hard Rush. However it grows by the side of the estuary. It also differs in having leaves coming from the base of the stem.

The longest bract, which is very pointed, overtops the flower considerably. The flowers are yellowish.

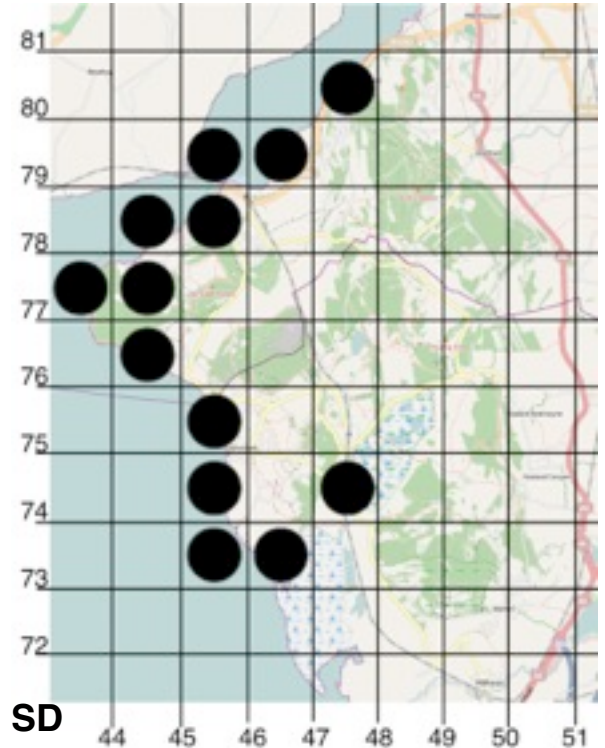


Grubbins Wood from New Barns Bay

Juncus gerardii - Saltmarsh Rush



This rush resembles Jointed Rush at first sight with its flowers at the top of the stem. However it grows only in the saltmarshes and brackish places. It also has very thin cylindrical leaves. It forms very dense patches from its long rhizomes. You can find it along Arnside shore to New Barns.

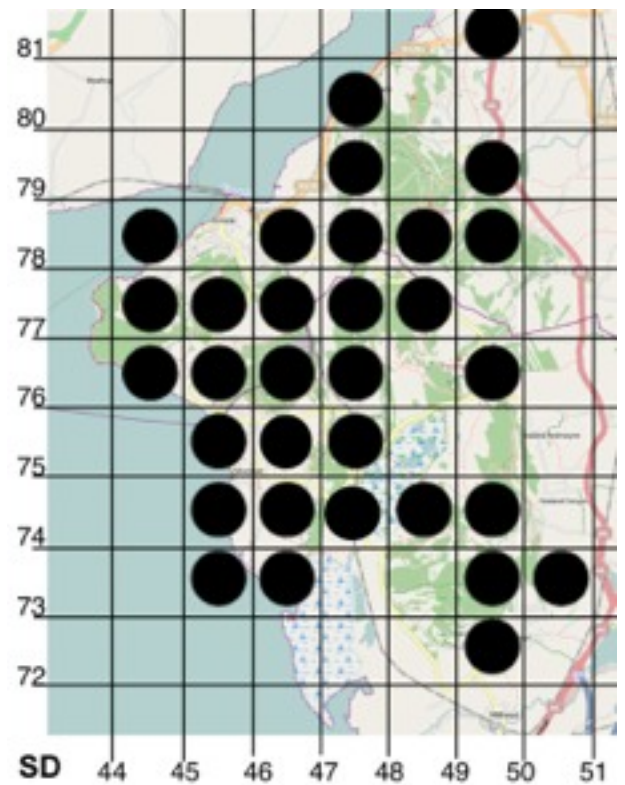


Arnside shore

Luzula campestre - Field Wood-rush



This is a compact little wood-rush with creeping runners. It has very bright yellow anthers at flowering time, March to June, which make it stand out. The stem ends in between 4 and 7 heads of flowers. The leaves are sparsely hairy. It is common in short grassland, paths and woods. It is also common in lawns throughout the area.

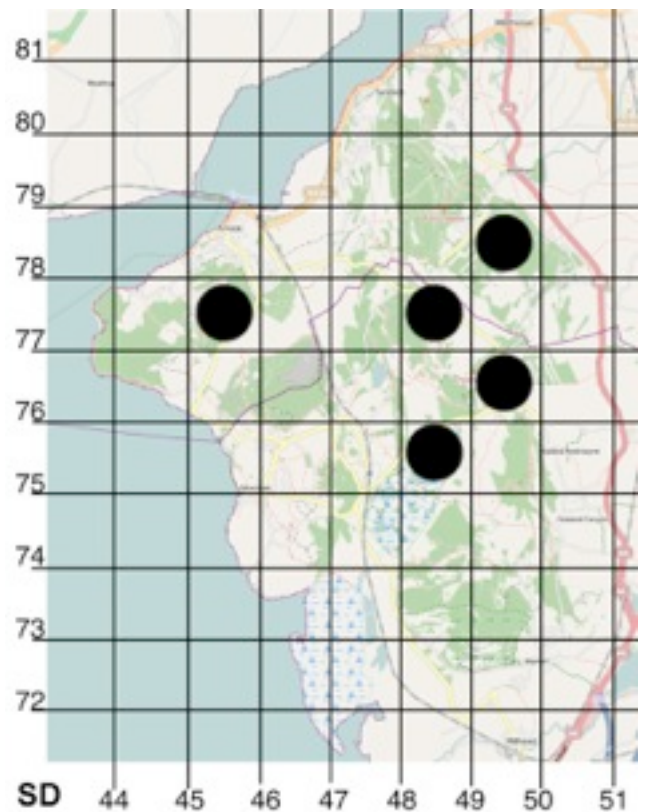


Luzula multiflora - Heath Wood-rush



This is quite similar to Field Wood-rush but is hairier, larger and the flowers form more of an umbel. There are also many more heads of flowers, between 8 and 14. You can find it in the same sorts of habitats as Field Wood-rush but it is seldom found in lawns.

Try the paths in Redhills Wood or the North half of Leighton Moss RSPB reserve.



Leighton Moss

Luzula pilosa - Hairy Wood-rush

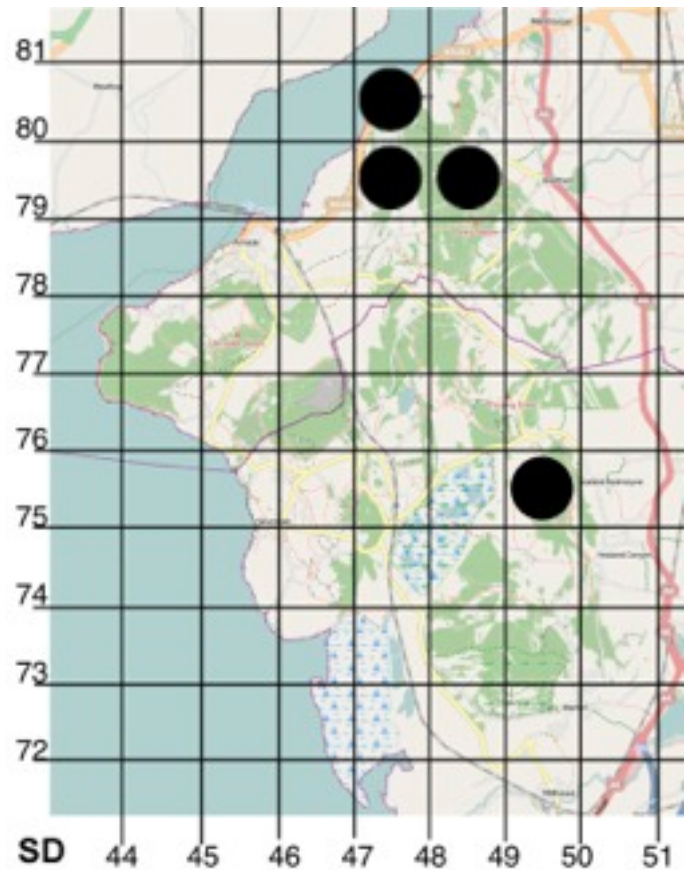


This has densely hairy leaves and a much taller stem which ends in lots of very stiff stalks that radiate out in all directions. Each flower is on the end of its own fairly long stalk, sometimes you can get two together.

It is found in woods, by the sides of paths and hedgebanks.

It can be found by the path edges in Underlaid Wood.

Probably all the wood-rushes except Field Wood-rush are under recorded.

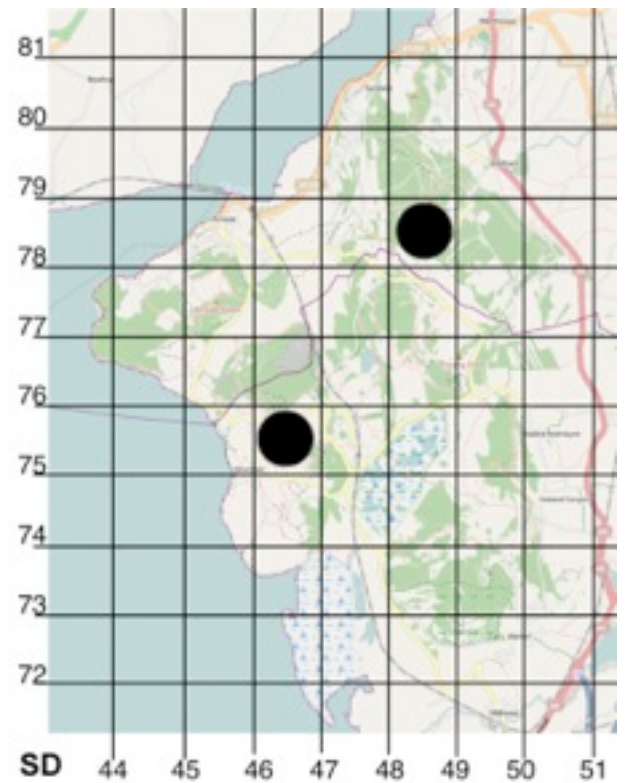


Coldwell Parrock

Luzula sylvatica - Great Wood-rush

As its name suggests, this is the largest of our wood-rushes. It grows in woods and moors on acidic soil. It forms large tussocks of plants. Each stem ends with many stiff stalks which re-branch several times. The flowers grow in groups of 3 or 4 at the tips of these stalks.

You can find this in Underlaid Wood and also round Silverdale Village.



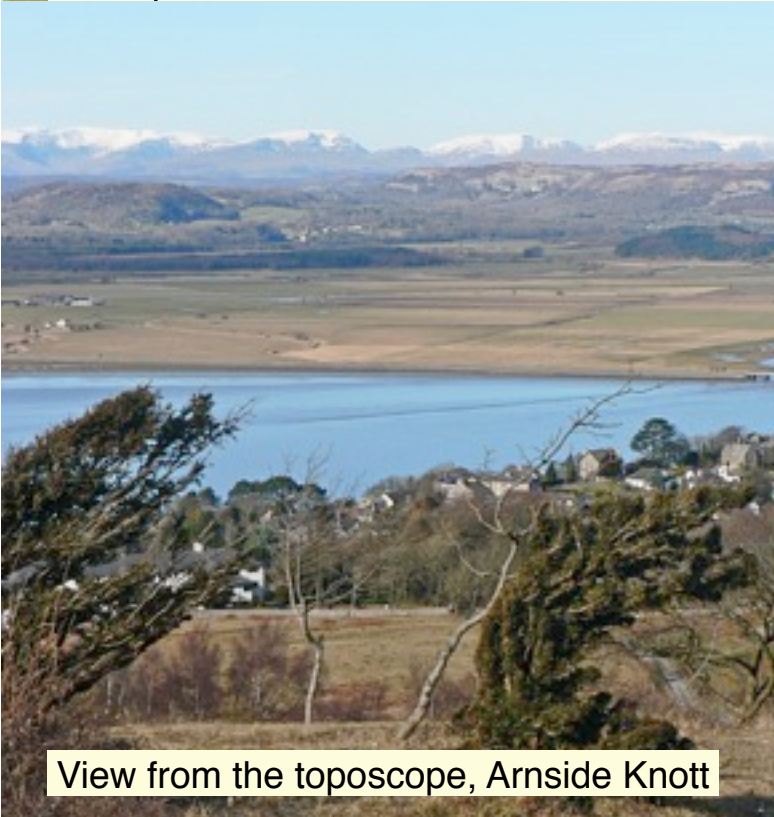
Underlaid Wood



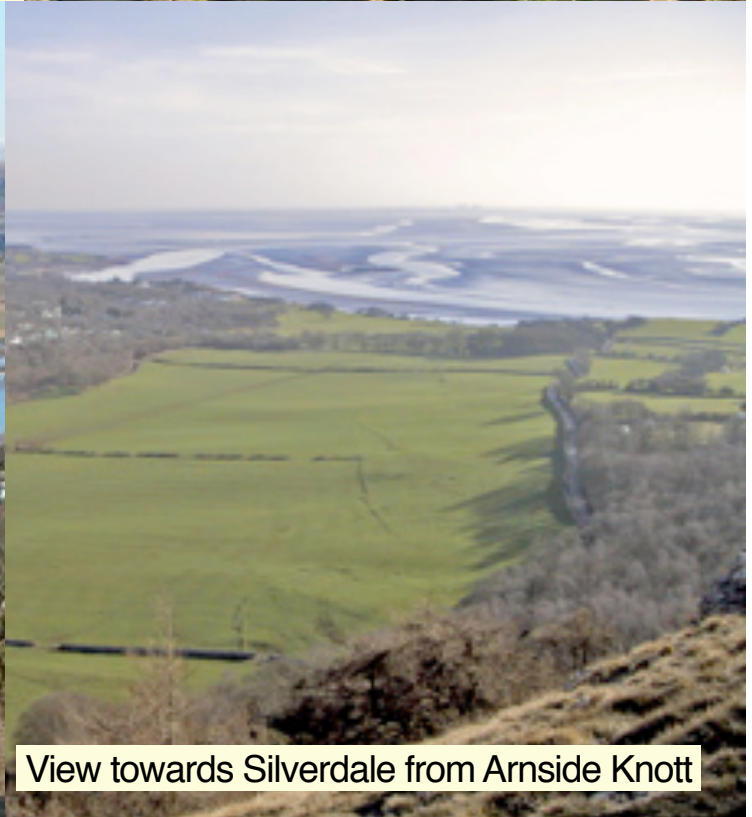
Field below Arnside Tower



Foothpath to Hazelslack from Coldwell Lane



View from the toposcope, Arnside Knott



View towards Silverdale from Arnside Knott