

Meadows



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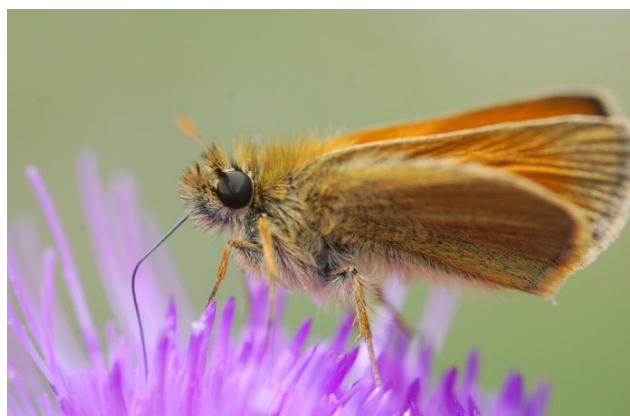
Meadows are one of the most diverse habitats in Britain. However, in the past 50 years the number of meadows has dramatically decreased losing about 95% of all meadows due to modern farming practices.

Why are they important?

Meadows are a valued part of our countryside for numerous reasons. Firstly they are typically species-rich and as a result of declining meadow numbers, many native wildflower species are also in decline and some have almost entirely disappeared.

Meadows are also valuable as they not only create a fantastic habitat for wildflowers but also for a vast array of insects, birds and mammals.

Whose habitat is it?



Small Skipper Butterfly

Wildflowers

In some of the best meadows there can be up to 50 species per square metre. As the seasons change so will the appearance of a meadow as different species come into flower.

Some of the wildflower species which are now recognised as being scarce and in decline include:

- Cowslip (*Primula veris*)
- Adder's tongue fern (*Ophioglossum vulgatum*)
- Dyer's greenweed (*Genista tinctoria*)

Insects

As well as meadows supporting many wildflower species, they also provide a great habitat for many invertebrates including:

- Butterflies e.g. skipper
- Grasshoppers
- Bees
- Beetles
- Flower bugs
- Moths

The flowers and insects which thrive in any meadow are dependent upon its locality and aspect along with its current and past management practices.



Orchid *DBAP Images*



Linnet *DBAP Images*



Field Vole *Darin Smith*



Cowslip *Phil Gates*



Long Horn Cow *DBAP Images*

Birds

Meadows also provide a great habitat for various bird species. Different types of meadows attract different birds, for example, fields which are more marshy and rushy, tend to be good breeding grounds for birds such as:

- Snipe
- Curlew

Whereas meadows which are drier tend to be nesting areas for:

- Skylarks
- Linnets

Mammals

Meadows are utilised by a wide variety of mammals both large and small. Some of the small mammals you will tend to find in meadows include:

- Field mice
- Bank and field voles
- Shrews

Along with these smaller mammals, you will often find larger mammals such as Roe Deer as they tend to use meadows for grazing, particularly when the first spring flushes of grass start to grow.

How are meadows managed?

Traditional hay meadow management

- Old hay meadows which contain vast arrays of colourful flowers are typically a result of using traditional land management techniques.
- Traditionally meadows are **grazed** in **autumn/winter** and **early spring**.
- Meadows are then normally **'shut up'** in **May**, when all the animal stock is removed, which allows the hay crop to grow.
- The hay crop is then normally **cut** in **July** or **August**, once the seeds have set.
- After the hay has been cut the animal stock is then returned back to the field for grazing as their hooves help to open up the sward which allows space for the seeds to begin germination.

- A light application of well-rotted manure is then often applied to restore some of the nutrients that have been lost with the removal of the hay crop.

Cutting regimes

The time of year when you decide to cut your meadow determines whether early or late flowering plants will thrive. When possible, cut the hay later to allow seeding of meadow plants that flower later.

Cutting the hay later is more beneficial for a number of reasons. Firstly because early cutting tends to reduce the variety of flowers in your meadow, and secondly early cutting is also bad for ground nesting birds as it can lead to high losses of nests and chicks.

If it is necessary for you to cut before mid-July then it may be more favourable to adopt wildlife-friendly mowing regimes such as:

- Cutting the field from the centre outwards or;
- Mowing from one side of the field to another

These methods often benefit late ground nesting birds with chicks and other wildlife such as young hares.



Skylark DBAP Images



Hare Darin Smith

Mowing that is followed by aftermath grazing produces the structural diversity needed to create maximum wildlife interest.

When cutting it is ideal to leave a height of about 6-7cm as this can then be lightly grazed. Grazing will leave a height of no more than 10cm by the end of the growing season.

Grazing Regimes

As previously stated grazing often increases structural diversity, the number of species in the sward and aids new seed germination. Aftermath grazing also reduces the dominance of the most competitive species.

To increase the variety of wild flowers in your meadow and if you have access to sheep and cattle, it is best to graze sheep in spring (before the field is 'shut- up'), then graze cattle post cut, in autumn.

How can I create a meadow?

Even if you do not own a large expanse of land, you can still create a valuable meadow in your own garden.

Wild flowers usually thrive in soils that are poor and lacking in nutrients, as this means they do not have to compete with vigorous plants such as nettles and some grasses, which thrive in nutrient rich conditions.

If your garden soil is rich in nutrients, do not worry as there are various ways you can make your garden fit for wildflowers. For example: although it may sound drastic, one of the best ways of reducing soil fertility is by removing the top-soil.

Ground preparation

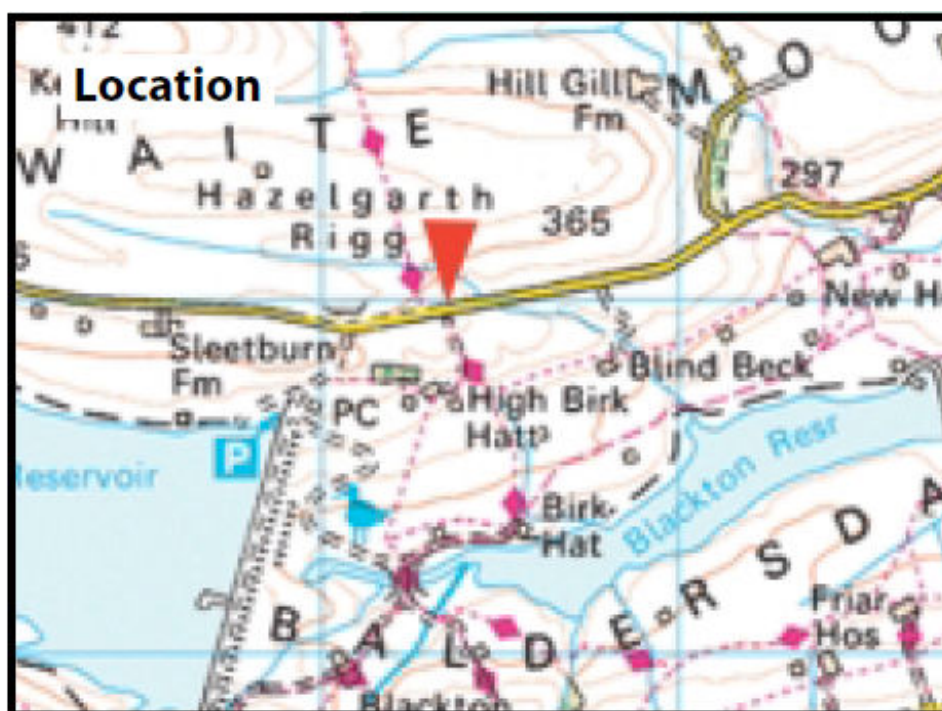
One of the most important aspects of making a successful meadow is good ground preparation.

Creating a meadow from seed will work best if the area you intend to use for your meadow is free from weeds such as thistles, docks, nettles etc.

The ground you are intending to use also needs to be exposed which can be done by removing the layer of turf. Leaving the area bare for a couple of weeks will allow any annual weeds to grow, which you can then remove.

Finally before sowing your seed it is important to rake and roll the soil to produce a suitable seed bed.

Where can I view this type of habitat?



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Sowing the seed

The best time of year to sow seed is in **autumn** (September/October) as this will benefit species which need the cold, frosty weather to break their in-built dormancy. You can also sow seed in **spring** (April), however the seeds will not benefit from the frost which means they will not germinate in their first year after being sown.

Important: *when choosing which seeds to use always choose seed and plants that reflect what naturally grow in your area. NEVER use imported seed or plants grown from an unreliable source. See flora locale's website for advice.*

Hannah's Meadow

From Barnard Castle follow the B6277 to Romaldkirk, then follow the Balderhead road via Hunderthwaite. The reserve is adjacent to the public road 1 1/4 mile east of the Balderhead Reservoir Car Park.

Further Information

- North Pennine Upland Hay Meadows:
www.northpennines.org.uk/index.cfm?articleid=5037
- Flora Locale: www.floralocale.org

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