

What are MAGical Meadows?

MAGical Meadows are the wildflower rich grasslands that grow on a type of rock called Magnesian Limestone. In the UK this is found in a narrow band stretching from South Tyneside to Nottinghamshire.

In places where the Magnesian Limestone reaches the surface, through erosion or quarrying, it supports a rich and unique group of wildflowers and grasses known as magnesian limestone grassland. Two-thirds of the UK's remaining magnesian limestone grasslands are found in east Durham and Tyne and Wear.



Why are MAGical Meadows Important?

Soils on limestone rock are very nutrient poor and slightly alkaline. As a result only certain plants can survive here. On the Durham Magnesian Limestone some of these limestone-loving plants are at the southern limit of their range and others at their northern limit. This combination of plants is completely unique and not found anywhere else in the UK.

Most of Britain's limestone grassland has been lost in the last 60 years. It has been ploughed up, built over, or fertilised to improve grazing. It is important to conserve the small amount that is left in east Durham and Tyne and Wear as it supports 13 nationally rare plants and 84 nationally rare invertebrates, such as the Glow Worm and the Northern Brown Argus butterfly. The MAGical Meadows Project aims to conserve and restore the unique and fragile magnesian limestone grassland in the Durham area.



Northern Brown Argus

Where can I see MAGical Meadows?

The remaining MAGical Meadows sites occur on outcrops of the Magnesian Limestone escarpment, which runs between Boldon in the north and Ferryhill in the south and along the plateau of the stunning Durham coast from South Shields to Hartlepool.

Many of the larger sites, including former Magnesian Limestone quarries, are now nature reserves, but you can see smaller examples on roadside verges, former railway lines and railway embankments.

These are some of the best examples of our MAGical Meadows that are open to the public. The best times to visit are from the beginning of June to the middle of August.

South Tyneside

Cleadon Hills LNR (NZ389631)
Marsden Old Quarry LNR (NZ394644)
The Leas (NZ394658)

Durham Coast

Beacon Hill (NZ442453)
Blackhall (NZ470392)
Castle Eden Denemouth NNR (NZ455403)

East Durham

Cassop Vale NNR (NZ336386)
Crow Trees LNR (NZ332374)
Little Wood LNR (NZ340375)
Raisby Hill Grassland (NZ333354)
Wingate Quarry LNR (NZ373375)

Sedgefield

Bishop Middleham Quarry (NZ331326)
Ferryhill Carrs LNR (NZ302327)
Thrislington NNR (NZ309327)



Marsden Old Quarry

Sunderland

Fulwell Quarry LNR (NZ388598)
Penshaw Monument (NZ338545)
Tunstall Hills LNR (NZ395543)

Key: NNR= National Nature Reserve LNR = Local Nature Reserve

For further information contact Michelle Appleby at Durham Wildlife Trust on 0191 584 3112. MAGical Meadows has received support from English Nature, through Defra's Aggregates Levy Sustainability Fund grants scheme. It is a Durham Biodiversity Partnership project supported by the following organisations: City of Sunderland, DEFRA, Durham City Council, Durham County Council, Durham Wildlife Trust, Easington District Council, English Nature, The National Trust, Sedgefield District Council, South Tyneside Council and Tyne Tees Farming & Wildlife Advisory Group.



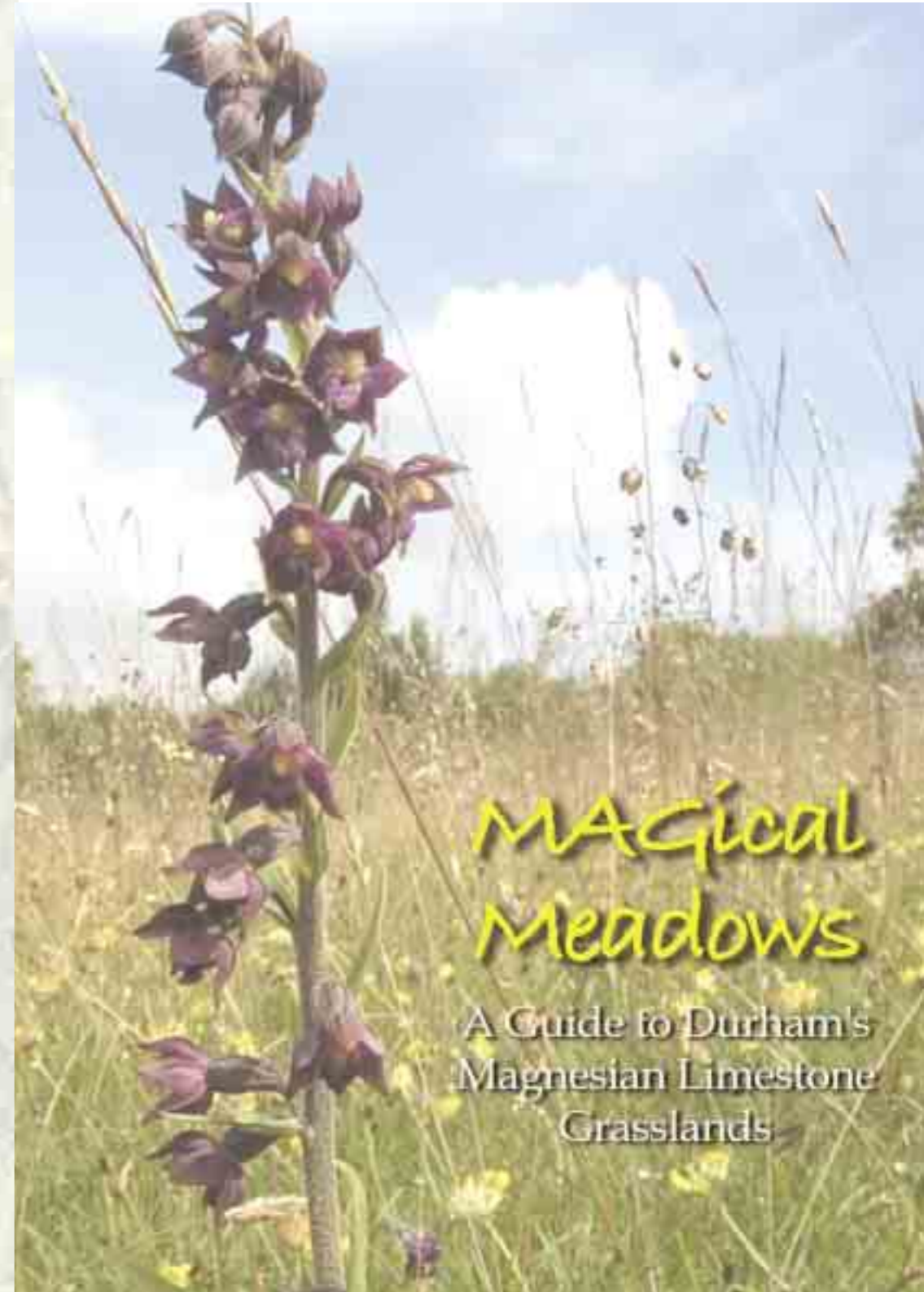
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MAGical Meadows

A Guide to Durham's Magnesian Limestone Grasslands



Wildflower and Grasses of MAGical Meadows

The following grasses and flowers are typical of magnesian limestone grassland. Some of them grow in other places too, but are frequently seen together on our MAGical Meadows.

Blue Moor-grass (*Sesleria caerulea*)

Size: 10 - 45cm

Description: A distinctive fine grass with green-grey leaves and short tufted flowering spikes, which can have bluish-purple tinges.

Flowering time: April - June



Keith Cunningham

Quaking-grass (*Briza media*)

Size: 20 - 50 cm

Description: A very delicate looking grass that has purple coloured, flat, triangular flower spikelets, most distinctive, dancing in the wind on slender stalks.

Flowering time: May - August



Dave Mitchell/English Nature

Glaucous Sedge (*Carex flacca*)

Size: 10 - 60cm

Description: The stems of sedges are triangular in cross section, unlike grasses (feel the base of the plant). This is the most common sedge of limestone grasslands.

Flowering time: April - May



Dave Mitchell/English Nature

Greater Knapweed (*Centaurea scabiosa*)

The flowers of this plant attract large numbers of bumblebees and butterflies.

Size: 50 - 80 cm

Description: A large branched plant with hairy stems and ragged looking purple-pink flowers on solitary stalks.

Flowering time: June - August



Dave Mitchell/English Nature



John Hope

Common Spotted Orchid

(*Dactylorhiza fuchsii*)

Size: 10 - 60 cm

Description: Many orchids have very obvious flowering spikes. This one is made up of small pink flowers which have three lobes marked with crimson dots and stripes.

Flowering time: Late May to July

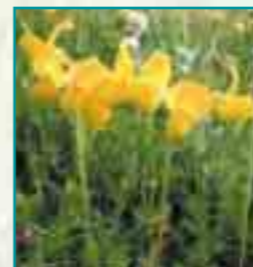
Bird's-foot-trefoil (*Lotus corniculatus*)

Also known as 'eggs and bacon' because of the red and yellow colouration of the flowers, this is an important food plant for many invertebrates including the Dingy Skipper butterfly.

Size: low growing plant, 10 - 20 cm

Description: The five leaflets on each leaf sometimes look like a bird's foot! Like all members of the pea and bean family it bears fruits in pods and has a characteristic flower shape. It has two to five yellow flowers per head.

Flowering time: May - September



Dave Mitchell/English Nature

Hoary Plantain (*Plantago media*)

Size: 10 - 40 cm

Description: As its name suggests this plant has very hairy leaves, which form a rosette at the bottom of the long flowering stalk. The untrained eye could mistake the dense and silvery-lilac flowering spike for the compact flowering head of a grass.

Flowering time: May - August



Keith Cunningham

Cowslip (*Primula veris*)

Size: Flowering stem 10 - 25 cm

Description: The leaves form a rosette on the ground and the long flowering stalk bears clusters of yellow tubular flowers in the spring.

Flowering time: April - May



Peter Wakely/English Nature



Keith Cunningham

Salad Burnet (*Sanguisorba minor*)

Salad Burnet is a good indicator plant of lime-rich soils.

Size: 20 - 90 cm

Description: The leaves of this plant are probably more distinctive than the flowers, which are small, round and green, red or purple in colour. The leaves are greyish green, compound and sharply toothed and smell of cucumbers when crushed.

Flowering time: May - September

Small Scabious (*Scabiosa columbaria*)

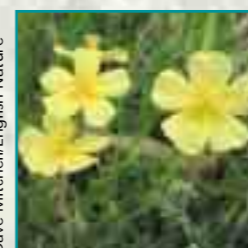
Size: 15 - 70 cm

Description: A smaller and less hairy version of Field Scabious, which you might also see. Small Scabious has bluish-lilac flower heads between two and four cm across with a single row of leaf-like sepals under the flower head. Field Scabious has a double row of sepals.

Flowering time: July - August



Dave Mitchell/English Nature



Dave Mitchell/English Nature

Common Rock-rose

(*Helianthemum nummularium*)

This is the foodplant for the Northern Brown Argus butterfly.

Size: 10 - 30cm

Description: A low-growing plant with small, elongated leaves and delicate yellow/cream 5-petaled flowers.

Flowering time: May - September

Wild Thyme (*Thymus polytrichus*)

Size: very low growing, 5 - 10 cm

Description: Thyme is a mat-forming plant that is woody at the base and creeps over the ground. The small oval (5mm) leaves have a pleasant smell when bruised.

Flowering time: June - September



Dave Mitchell/English Nature