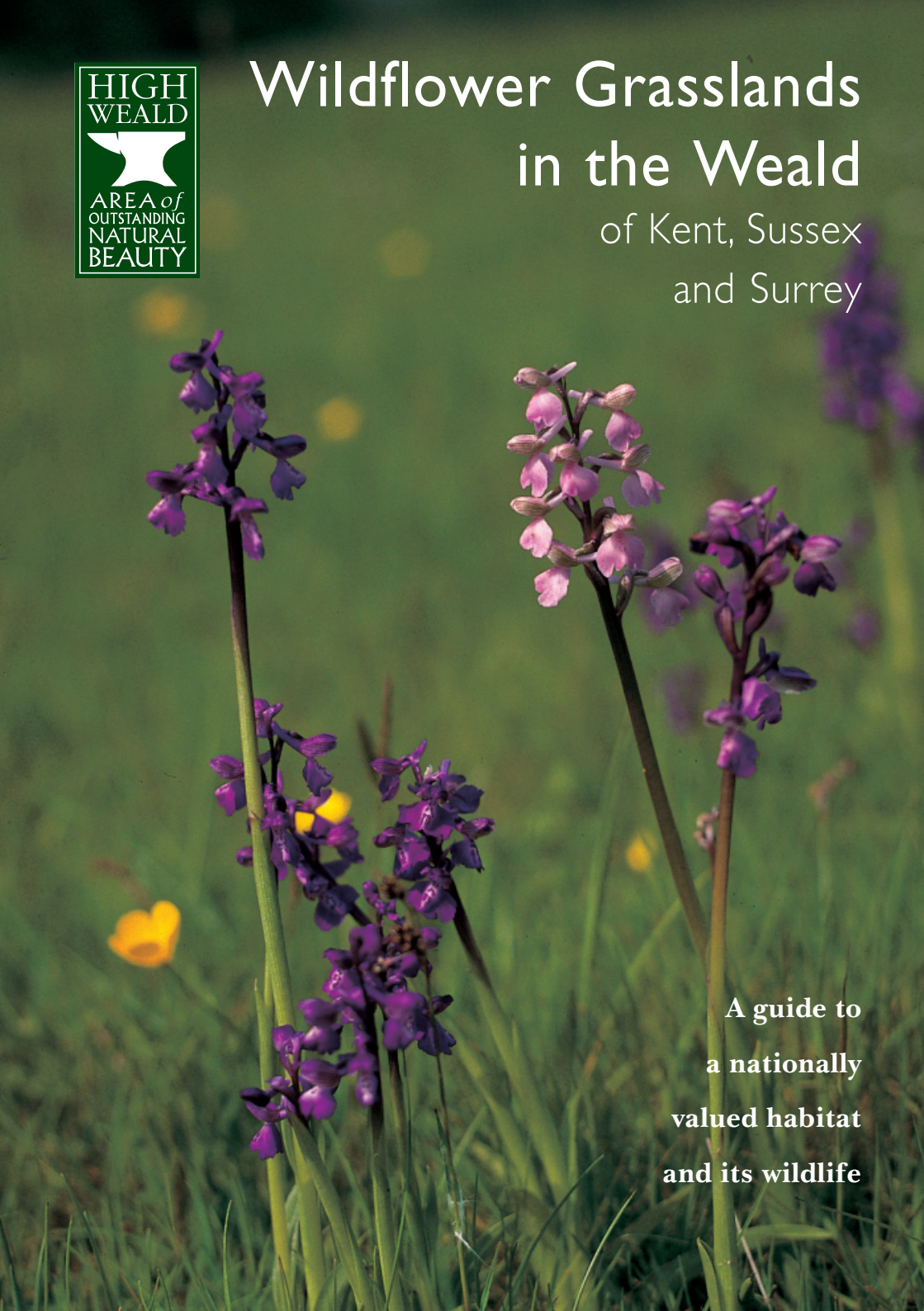
HIGH WEALD AREA of OUTSTANDING NATURAL BEAUTY

Wildflower Grasslands in the Weald

of Kent, Sussex and Surrey



A guide to a nationally valued habitat and its wildlife

The High Weald Area of Outstanding Natural Beauty

Wildlife-rich grasslands are glorious places in summer alive with colourful flowers and butterflies and literally buzzing with the activity of bees, grasshoppers and other creatures. These grasslands, which occur on the Weald's neutral and acid soils, represent an irreplaceable and vanishing aspect of the area's countryside and heritage.

The High Weald is a stronghold for wildlife-rich grasslands which now cover less than 1% of the UK. Understanding these precious, rare grasslands is key to their conservation, restoration and creation.

The High Weald is a medieval landscape of rolling hills draped with small irregular fields, abundant woods and hedges, scattered farmsteads and ancient routeways. It was designated as an Area of Outstanding Natural Beauty (AONB) in 1983 to aid its protection and management. It covers 563 square miles of countryside at the heart of the South East England.

Vanishing Wildflower Grasslands

• Species-rich grasslands or 'unimproved' grasslands have more than 15 different types of plants including rare or scarce species.

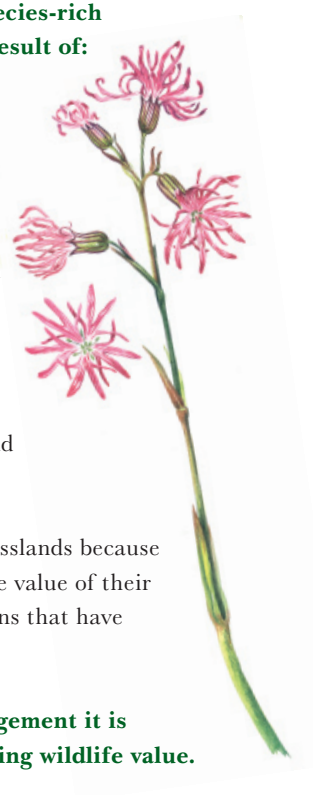
• 'Semi-improved' grasslands may have been ploughed once or twice many years ago, or had some fertiliser applied in the past. But they still retain a valuable number of wild grass and flower species, typically between 9 and 15.

• Species-poor grasslands or 'improved' grasslands contain few wild grasses and only a few vigorous wildflower species such as creeping buttercups. They are of little botanical value but can be made more species-rich with the right management.

Species-rich grasslands have evolved from ancient origins and been maintained by a continuity of traditional low-intensity grazing (pastures) or hay making (meadows) by generations of farmers. Sadly, agricultural intensification has meant we have lost 97% of our wildflower-rich grassland in the UK.

The few remaining species-rich bngrasslands are still being lost as a result of:

- ploughing and re-seeding (with a high yielding grass mix)
- planting trees
- overgrazing or undergrazing
- lack of, or inappropriate, management
- silage-making replacing the traditional hay cut
- conversion to arable crops
- use of inorganic fertilisers, slurry, herbicides or excessive lime
- lower water levels through drainage and abstraction.



Often harm is caused to these special grasslands because land managers are unaware of the wildlife value of their grassland and inadvertently make decisions that have damaging impacts.

Before changing your grassland management it is therefore important to assess its existing wildlife value.

How do I know if a meadow or pasture is valuable for wildlife?

Many roadside verges in the High Weald have escaped management changes and are remnant species-rich grasslands. You can see many of the indicator species (right) on historic routeways as you travel around the area in the summer.

The richest grasslands are those that have been managed in the traditional way for many decades without agricultural improvement.

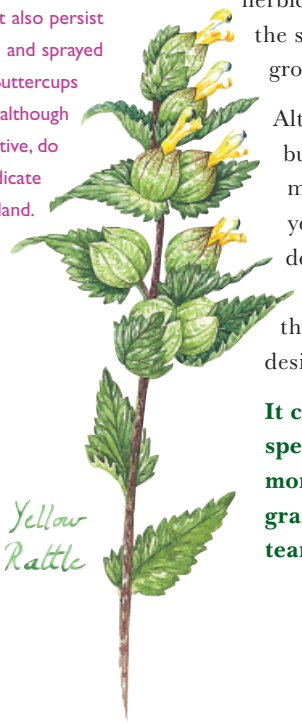
The presence of certain plants can indicate grassland of considerable wildlife value: yellow rattle, ox-eye daisy, devil's-bit scabious, common knapweed, ragged robin, Dyer's greenweed, orchids and fine-leaved grasses. Ant-hills and ridge and furrow (patterns left by ancient ploughs) can also be valuable indicators.

Buttercups often occur in profusion in flower-rich meadows but also persist in fertilised and sprayed fields. Buttercups therefore, although attractive, do not alone indicate valuable grassland.

To discover what flowers are present in a pasture which has always been grazed short without the use of fertilisers or herbicides, try temporarily fencing off a small area for the summer. You may be surprised at what flowers grow up!

Alternatively if a grassland has become overgrown, but still not had fertilisers or herbicides applied, mowing small patches and keeping them short for a year or two will indicate whether other more delicate plants will come back from seed. A 'restoration cut' to shorten the grass, ensuring that all cuttings are removed, may then be desirable, unless ant-hills or barn owls are present.

It can be hard to tell if a grassland is species-rich, particularly outside the summer months. If you would like help assessing your grassland, please contact the High Weald AONB team for advice.



Caring for traditional meadows and pastures

• **Meadows** are managed by mowing for hay. They support mainly spring and early-summer flowering perennials with some annuals and drop their seed before the hay-cut. Wildlife-rich hay meadows are now our rarest grassland type.

• **Pastures** are managed by grazing with sheep or cattle. They support mainly summer-flowering perennials. Pastures also provide excellent habitat for insects because there is vegetation for them throughout the year.

Grassland needs to be managed! Past management is important when considering future management and management consistency will ensure species continuity. Old grasslands were traditionally managed in two main ways resulting in two important types of wildflower community: meadows and pastures.

Meadow management comprises the cutting and removal of a hay crop in mid/end of June to late July and grazing of the new growth (if weather and soil conditions allow) until the following spring when the fields are shut up again for hay.

A small amount of *light* poaching (pockmarks left by livestock hooves) can provide useful micro-habitats for insects, and germination sites for annual flowers, as well as perennials like ox-eye daisy. *No fertilisers should be used*.

Pasture management is where grazing alone is carried out year after year. Stock numbers should be regulated to allow a variety of sward heights to develop (from short to slightly tussocky) and some flowering and seed-setting to occur. This is particularly important for insects. Some grass seed-heads left over winter, at least around the margins of the field, are essential for the over-wintering stages of many butterflies, beetles, spiders, etc. *No fertilisers should be used*.

Undergrazing and overgrazing should be avoided:
Undergrazing leads to the dominance of coarse grasses at the expense of more delicate species, followed by the invasion of bracken, bramble and ultimately scrub.
Overgrazing can lead to excessive poaching and the creation of bare ground in which invasive weeds such as thistles, ragwort and docks can become established.

Restoration of neglected or inappropriately managed species-rich grasslands to their former glory is possible. For best results, seek specialist advice.

If grassland has limited wildlife interest how can it be enhanced?

Native and local provenance seed
Many grassland wildflowers are now scarce. UK native and local provenance seed, such as Weald Native Origin Seed, are genetic strains that tend to be more disease-resistant and well-adapted to specific local conditions.

Weald Native Origin Seed
Partners working across the Weald have established a network of ancient meadow sites that are sustainably 'wild' harvested to produce Weald Native Origin Seed. Most native origin seed comes from crops specifically grown to produce seed.

Purchasing Weald Native Origin Seed is a way of supporting the traditional management of the Weald's ancient hay meadows.

To enhance *species-poor grassland* and encourage wildlife, the most appropriate option will depend on soil fertility, the type of grasses present, any perennial, invasive weeds such as thistles and docks, and existing wildlife. Reinstating traditional meadow or pasture management is important to success.

Enhancement. It is possible to introduce wildflowers into low fertility, species-poor grassland containing only a few *wild* grasses. The grass may need to be cut or grazed short, and even harrowed, before broadcasting local provenance seed, or planting plant plugs, or both. The growth is then kept short for at least a year before adopting a traditional management regime.

Creation. To reseed low fertility, species-poor grassland or arable land, a weed-free seed-bed with a fine tilth is essential. Naturally shallow and poor soils, and fields with slopes or poorly drained areas are *particularly suitable*. Preparations need to be started well in advance with Weald Native Origin Seed pre-ordered. Seed should be broadcast in late summer/early autumn, and for mixes without the annual yellow rattle, the growth then kept short for at least a year. This approach is more expensive but can give particularly good results in the longer term.

Creation and restoration tips

- **Carrying out a soil nutrient test is an important starting point.**
- **If nutrient levels are too high it is unlikely that the wildflowers will survive.**
- **Yellow rattle can be sown to reduce competition before sowing other wildflower seed.**

If I wish to enhance species-poor grassland what should I expect?

Grants are available to help with managing grassland for wildlife, and introducing regenerative agriculture practices. Contact the High Weald AONB team for information.

Introducing **regenerative agriculture** techniques, such as planned holistic grazing, will also improve above and below ground wildlife.

Enhancing 'species-poor' grassland and creating wildflower grasslands from scratch can be very rewarding – however you should not expect to replicate an ancient wildflower meadow in just a few years!

Other grasslands can also be important for wildlife. One enhancement approach, appropriate only on species-poor grassland, is to create '**rough grassland**'. This is done by allowing the grass to develop a tussocky structure with overwintering grass seedheads and perhaps a few scattered native shrubs. This will encourage voles and exciting predators such as kestrels and barn owls, but only a few flowers.

Tussocky grassland (with thick, matted 'clumps') should be cut or lightly grazed every second or third year, at the end of summer, to prevent the invasion of brambles and rejuvenate the sward. When mowing, the cutting blades should be set to a height of 4 inches.

Grassland managed in this way can also support a variety of butterflies, grasshoppers, bees and other insects, if a few more 'robust' wildflowers such as knapweed, common sorrel and tufted vetch are present.

This option may also be combined with other grassland management options. For example you could allow a wide, unmanaged, tussocky margin around the edge of the field, mowing and removing cuttings every 18 to 24 months to prevent coarser grasses and a reversion to scrub.

The Weald Meadows Network

Weald Meadows Network supporters

- High Weald AONB Partnership
- High Weald Landscape Trust
- Agrifactors
- East Sussex County Council
- Kent Wildlife Trust
- Natural England
- People Need Nature
- Plantlife
- Royal Botanic Gardens Kew and the UK Native Seed Hub
- Sussex Biodiversity Record Centre
- Sussex Wildlife Trust
- University of Sussex

Over the past 25 years, land managers in the High Weald AONB have been at the forefront of meadow restoration. They have helped to hold back the decline of species-rich grasslands and established new meadows on a landscape scale.

The **Weald Meadows Network** is supported by a team of individuals and organisations passionate and knowledgeable about species-rich grasslands, who:

- offer an advisory service
- run specialist training and events
- help with grassland surveys
- access resources for meadow creation, enhancement and management
- encourage collaborative working
- undertake grassland research
- raise the national profile of the Weald's rare grasslands.

Further information

Further reading on species-rich grasslands and saving meadows:

www.highweald.org

www.magnificentmeadows.org.uk

www.plantlife.org.uk

For details of who can help you assess, manage, restore or create a species-rich grassland – or to join the Weald Meadows Network mailing list for updates on its activities – contact:

High Weald AONB Partnership T: 01424 723011

E: info@highweald.org W: www.highweald.org

For purchases of Weald Native Origin Seed – and ground preparation and sowing advice – contact the Weald Meadows Partnership:

Dawn Brickwood T: 07863 081281
E: meadows@highwealdlandscapetrust.org
W: www.highwealdlandscapetrust.org/weald-meadows-partnership

Photos by Ralph Hobbs, illustrations by Sandra Fernandez

Wildflower Grasslands in the Weald

For tree-planting, species-poor or 'improved' grasslands should be selected, instead of wildlife-rich ancient meadows and pastures.

Unmanaged grassland can lose its wildflower interest as coarse grasses swamp delicate flowers.

Wildlife-rich grasslands are scattered across the small, medieval fields of the High Weald.

New meadows can be created on poor soils using local provenance grass and wildflower seed.

Ancient meadows and pastures are rare and threatened.

Specialised harvesting machinery collects seed from ancient meadows for local supply.

Meadows are traditionally mown to produce herb-rich hay in June and July, after flowers have set seed.

Sheep and cattle lightly graze pasture, preventing scrub and coarse grass taking over.

In autumn look for brightly-coloured waxcap fungi in unimproved grassland like grazed pastures, old lawns, parkland and churchyards.

Wet flushes support special plants such as ragged robin.

Ant-hills support delicate plants such as trailing St John's-wort and attract green woodpeckers which feed on ants.

Wildflower-rich grasslands are an important home for pollinators.

Rabbits graze some areas short; benefiting plants such as bird's-foot trefoil.

Plants and insects of species-rich grasslands. These plants can indicate grassland of national wildlife value.

Ragged Robin
Common Knapweed
Devil's-Bit Scabious
Common Blue Butterfly
Small Copper Butterfly
Birds-foot Trefoil
Common Sorrel
Burnet Moths
Bumble Bee
Meadow Grasshoppers
Small Quaking Grass
Sweet Vernal Grass
Crested Dog's Tail
Meadow Barley
Dingy Skipper
Green-Winged Orchid
Ox-eye Daisy