



UK Terrestrial & Freshwater Habitat Types: Lowland Heathland Habitat descriptions

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<https://webarchive.nationalarchives.gov.uk/20190301141028/http://jncc.defra.gov.uk/page-4532>.

The descriptions include information on a habitat's characteristics, extent & distribution, pressures & threats, condition, protection, and management. Although much of the information remains of value and interest, it is historic and therefore does not necessarily reflect the most up-to-date state of knowledge of the habitat.

Please note that, given the age of the material, some of the links (particularly to external websites) may no longer work.

UK Lowland Heathland Habitats

Heathland is a well-known habitat type in the lowlands of the UK. It occurs on acidic, impoverished, dry sandy or wet peaty soils, and is characterised by the presence of a range of dwarf-shrubs. These include various types of heather and gorse, as well as bilberry / blaeberry, cowberry and crowberry.

Lowland heathland is a priority for nature conservation because it is a rare and threatened habitat. It has declined greatly in extent during the last two centuries – in England it is estimated that only one sixth of the heathland present in 1800 remains – and it still faces major pressures.

The habitat is also home to numerous highly specialised plants and animals. It is particularly important for reptiles, especially large lowland heathland blocks in southern England, which provide prime locations for the rare sand lizard and smooth snake. A number of scarce birds use lowland heathland as their primary habitat, such as the nightjar and Dartford warbler. Many scarce and threatened invertebrates and plants are found on lowland heathland.

The UK has a special obligation to conserve this habitat, given that it supports about 20% of the lowland heath in Europe. It also has high intrinsic appeal and provides a special sense of wilderness.

Lowland heathland is classed as a priority habitat under the UK Biodiversity Action Plan and there are five lowland heathland habitat types listed under Annex I of the EU Habitats Directive.

1 UK Lowland Heathland Habitat Types & Characteristics

1.1 Dry & humid heath



UK dry & humid heath typically occurs on freely-draining, nutrient-poor, acidic soils. The vegetation is characteristically dominated by one or more of the following dwarf-shrubs: heather *Calluna vulgaris*, bell heather *Erica cinerea*, cross-leaved heath *Erica tetralix*, gorse *Ulex europaeus*, dwarf gorse *Ulex minor*, western gorse *Ulex gallii*, bilberry/blueberry *Vaccinium myrtillus*, cowberry *Vaccinium vitis-idaea*, and crowberry *Empetrum nigrum* ssp. *nigrum*.

The habitat is generally dependent on grazing and burning to prevent invasion by trees and conversion to woodland. These factors also affect the height and canopy cover, which varies depending on the phase of development and grazing intensity. Following burning and where grazing is more intense, various grass species can be abundant, such as bristle bent *Agrostis curtisii*, purple moor-grass *Molinia caerulea*, sheep's fescue *Festuca ovina*, and wavy hair-grass *Deschampsia flexuosa*.

Dry & humid heath varies according to climate and is also influenced by altitude, aspect, soil conditions (especially base-status and drainage), maritime effects and management. There is a general gradation from southerly to northerly kinds, as well as both western (oceanic) and eastern (continental) forms. Humid heath, which occupies soils with slightly impeded drainage, is included in this group. Various lowland dry & humid heath communities, with different geographic ranges, have been identified based on differences in their vegetation communities. These are described below – for further details see [NVC field guide to mires and heaths](#).

Eastern continental dry heath

The semi-continental *Calluna vulgaris-Festuca ovina* heath of south-east and eastern England is generally species-poor and overwhelmingly dominated by heather. Sometimes it includes a modest diversity of bryophytes and, more especially, lichens. Common gorse is uncommon, except where there has been disturbance. Such heathland often supports an important fauna, including birds such as the European nightjar and Dartford warbler, and reptiles such as the sand lizard and smooth snake.



In south-eastern and central southern parts of England (Kent to Dorset), *Calluna vulgaris-Ulex minor* heath occurs. This is generally dominated by mixtures of heather, bell heather, dwarf gorse and wavy hair grass. After fire, bell heather often increases because of its prolific seeding. Dwarf gorse normally plays a subsidiary role, forming a patchy understorey to heather. Common gorse is occasional, but may be locally abundant after disturbance.

South-western oceanic dry heath



The climate becomes increasingly mild and oceanic towards the south-west of England and in southern Wales. The soils here are therefore slightly damp and different types of dry heath are found.

From the New Forest and west to Dorset, *Ulex minor-Agrostis curtisii* heath occurs. Heather frequently dominates this vegetation, especially where there has been no recent burning. Dwarf gorse is a frequent associate, but very variable in abundance. Unlike on more easterly heaths, both bell heather and cross-

leaved heath occur and they can be prominent – bell heather especially after burning and cross-leaved heath on more strongly gleyed soils. Bristle bent and purple moor-grass are characteristic grasses – after burning they can also become prominent. Various other species can be found occasionally, for example bracken *Pteridium aquilinum*, tormentil *Potentilla erecta*, heath milkwort *Polygala serpyllifolia*, pill sedge *Carex pilulifera*, and the curious parasitic plant, dodder *Cuscuta epithymum*.

Across south-west England and into southern Wales, *Ulex gallii-Agrostis curtisii* heath occurs. This is very similar to *Ulex minor-Agrostis curtisii* heath, the major difference being the replacement of one dwarf gorse species by another, i.e. dwarf gorse *Ulex minor* by the western gorse *Ulex gallii*, the western limits of which in east Dorset forms the boundary between these two heath types.

Central warm oceanic heath

At low to moderate altitudes in warm oceanic parts of southern Britain (from south-west England, across Wales and the northern Midlands and round into Norfolk and Suffolk), the typical form of heathland is *Calluna vulgaris-Ulex gallii* heath. This vegetation type is a characteristically diverse with abundant heather, western gorse and bell heather, and no cross-leaved heath, purple moor-grass or bristle bent. Common gorse may be abundant on disturbed ground, and both bracken and bramble may be present.

Upland transitional (sub-montane) cool oceanic heath

In the cooler oceanic climate of western and northern Britain, where there is a transition from lowland-upland areas, western gorse becomes scarce and *Calluna vulgaris*-*Erica cinerea* heath becomes the common heath type. This is typically dominated by heather, although this depends on the intensity and timing of burning and grazing. Bell heather is frequent, especially on more southerly-facing slopes, and becomes dominant in the hyper-oceanic fringes of the north-west. However, bilberry/blaeberry, cowberry and crowberry remain relatively scarce.



In marked contrast, in the heather-dominated *Calluna vulgaris*-*Vaccinium myrtillus* heath, bilberry/blaeberry is commonly encountered and grows vigorously when out of reach of grazing animals, and both cowberry and crowberry can be locally abundant, along with bell heather. This heath type accounts for most of the heathland from less oceanic, northern and western, sub-montane areas, where burning is commonly practised, including many of the moors managed for grouse shooting.

In even less oceanic areas, at low to moderate elevations from the Midlands, across northern England and in parts of eastern Scotland, extensive stands of *Calluna vulgaris*-*Deschampsia flexuosa* heath are often encountered. This heath is characteristically species-poor and overwhelmingly dominated by heather, often growing with a fairly low and open canopy with some wavy hair-grass. No other dwarf-shrubs are consistently frequent, although some can be quite common and locally abundant; bilberry/blaeberry being the most important, particularly at higher altitudes, with cowberry and crowberry being more localised.

Coastal dry heath



Dry heath also occurs on cliffs and slopes around the UK located near to the sea. This mainly forms *Calluna vulgaris*-*Scilla verna* heath, which is characteristically low-growing and usually contains the attractive spring squill *Scilla verna*. Although dwarf-shrubs are a consistent feature of this vegetation, they are not always obvious and rarely continuous; even where more extensive, they are commonly penetrated by herbs such as bird's-foot trefoil *Lotus corniculatus* and wild thyme *Thymus praecox*. Heather is the most frequent dwarf-shrub and is often dominant, though on dry soils it

is normally accompanied by bell heather. On wetter soils, cross-leaved heath and/or crowberry are the usual associates. Western gorse is found occasionally. In the far north, on Orkney and Shetland, and in north-west Wales, there is an unusual lichen-rich, waved form of this heath type.

In the warm, oceanic, coastal climate of The Lizard Peninsular in Cornwall, *Erica vagans*-*Ulex europaeus* heath occurs. This is a nationally rare and distinctive type of dry heath, in which Cornish heath *Erica vagans* and common gorse are the main co-dominants. Both western gorse and bell heather occur commonly and in places are abundant. Heather is, however, notably infrequent. The height and cover of dwarf-shrubs is variable, reflecting differences in grazing, burning and soil conditions – in exposed situations the vegetation can be very short. Various grasses and herbs are widespread, including betony *Stachys officinalis*, brown bent *Agrostis vinealis*, common dog-violet *Viola riviniana*, common milkwort *Polygala vulgaris*, glaucous sedge *Carex flacca*, and meadowsweet *Filipendula*

ulmaria. This reflects the peculiar association of this habitat with well-drained, moderately base-rich soils derived from serpentine rock.

Coastal dry heath also occurs in certain situations on acidic sand dunes and sandy shingle – see [UK Coastal Habitats Correspondence Table](#). This can take the form of *Calluna vulgaris*-*Carex arenaria* heath, in which sand sedge *Carex arenaria* is a constant and defining feature, and heather, bell heather, and (in north and east Scotland) crowberry are the main dwarf-shrubs. This is, by far, the key dune heath community in Scotland. In other places, the vegetation of coastal dunes takes on the characteristics of *Calluna vulgaris*-*Festuca ovina* heath (albeit distinguished again by the presence of sand sedge) or of *Calluna vulgaris*-*Erica cinerea* heath.

1.2 Wet heath

UK wet heath is associated with acidic, nutrient-poor, shallow peat or sandy soils with impeded drainage. The vegetation is typically dominated by a range of dwarf-shrubs and other species including cross-leaved heath, heather, bell heather, bilberry/blaeberry, bog myrtle *Myrica gale*, purple moor-grass, deer-grass *Scirpus cespitosus*, and various *Sphagnum* bog-mosses. Wet heath is an important habitat for a range of vascular plant and bryophytes species with an oceanic or Atlantic distribution in Europe. Various lowland wet heath communities, with different geographic ranges, have been identified based on differences in their vegetation communities. These are described below. For further details see [NVC field guide to mires and heaths](#).

Upland transitional wet heath

The typical form of this habitat where rainfall is moderate to high in the north and west of the UK is *Scirpus cespitosus*-*Erica tetralix* wet heath. The vegetation associated with this has few constants and shows wide variation in the pattern of dominance. Most stands comprise mixtures of purple moor-grass, deer-grass, cross-leaved heath and/or heather are usually characteristic, though one or more may be lacking entirely. Bell heather, bilberry/blaeberry, bog myrtle, *Sphagnum* bog-mosses, round-leaved sundew *Drosera rotundifolia*, bog asphodel *Narthecium ossifragum*, common cottongrass *Eriophorum angustifolium*, mat grass *Nardus stricta* and heath rush *Juncus squarrosus* are important in particular sub-communities. In the north, there may be a high cover of *Cladonia* lichens, whilst in the far north-west of Scotland, woolly fringe-moss *Racomitrium lanuginosum* and an abundance of Atlantic bryophytes is characteristic.

Drier forms of wet heath

Where the conditions are drier in the north and west, but also in the south and east, *Erica tetralix*-*Sphagnum compactum* wet heath is characteristic. This is usually dominated by mixtures of cross-leaved heath, heather and purple moor-grass in variable amounts, being influenced by differences in the water regime, soil nutrient status, grazing and burning. The bog-moss *Sphagnum compactum* is typically abundant. Bell heather and western or dwarf gorse may be abundant in transitions to drier heath in southern England. In the south, species with a mainly southern distribution, such as marsh gentian *Gentiana pneumonanthe*, brown beak-sedge *Rhynchospora fusca* and meadow thistle *Cirsium dissectum*, enrich the vegetation. On Orkney and at high altitude in the Scottish Highlands, *Cladonia* lichens are abundant.

Other wet heath types

A further very local wet heath type is *Schoenus nigricans*-*Narthecium ossifragum* mire. This is mainly associated with transitions from heath to valley bog at a small number of lowland sites from south-west England to East Anglia. Black bog-rush *Schoenus nigricans* is usually

dominant, purple moor-grass abundant, and bog asphodel and bog pimpernel *Anagallis tenella* frequent. Other characteristic plants include round-leaved sundew, bell heather, and bog myrtle. A distinctive and nationally rare form of this habitat grows on the The Lizard Peninsular in Cornwall, i.e. *Erica vagans-Schoenus nigricans* wet heath. The Cornish heath *Erica vagans* makes a constant and prominent contribution to the vegetation, along with black bog-rush, purple moor-grass and cross-leaved heath. Western gorse occurs with some frequency and may be co-dominant, but heather is only occasional and bell heather is scarce. The spiny petty whin *Genista anglica* can occur frequently and is preferential to this community.

2. Correspondences between UK Lowland Heathland Habitat Types

The table below shows how the different lowland heathland habitat types recognised by the mainstream habitat classifications in the UK relate to each other. The types included are those recognised under the UK Biodiversity Action Plan (UK BAP), the EU Habitats Directive, and the British National Vegetation Classification (NVC).

The table shows only how the types broadly fit together – some examples of the types shown may fit into other vegetation/habitat types. For more detailed information see the [habitat correspondences interactive spreadsheet](#).

Table 2.1. Correspondences between UK lowland heathland habitat types (created 2010).

UK BAP priority habitats	EU Habitats Directive Annex I habitats	National Vegetation Classification types
Lowland heathland	H4010 Northern Atlantic wet heaths with <i>Erica tetralix</i>	H5 <i>Erica vagans-Schoenus nigricans</i> heath
		M14 <i>Schoenus nigricans-Narthecium ossifragum</i> mire
		M15 <i>Scirpus cespitosus-Erica tetralix</i> wet heath
		M16 <i>Erica tetralix-Sphagnum compactum</i> wet heath
	H4020 Temperate Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i>	H3 <i>Ulex minor-Agrostis curtisii</i> heath
		H4 <i>Ulex gallii-Agrostis curtisii</i> heath
		M16 <i>Erica tetralix-Sphagnum compactum</i> wet heath
	H4030 European dry heaths	H1 <i>Calluna vulgaris-Festuca ovina</i> heath
		H2 <i>Calluna vulgaris-Ulex minor</i> heath
		H3 <i>Ulex minor-Agrostis curtisii</i> heath
		H4 <i>Ulex gallii-Agrostis curtisii</i> heath
		H7 <i>Calluna vulgaris-Scilla verna</i> heath
		H8 <i>Calluna vulgaris-Ulex gallii</i> heath
		H9 <i>Calluna vulgaris-Erica cinerea</i> heath
		H10 <i>Calluna vulgaris-Erica cinerea</i> heath
	H12 <i>Calluna vulgaris-Vaccinium myrtillus</i> heath	
H4040 Dry Atlantic coastal heaths with <i>Erica vagans</i>	H6 <i>Erica vagans-Ulex europaeus</i> heath	
H7150 Depressions on peat substrates of the <i>Rhynchosporin</i>	M15 <i>Scirpus cespitosus-Erica tetralix</i> wet heath	
	M16 <i>Erica tetralix-Sphagnum compactum</i> wet heath	

3 Extent & Distribution of UK Lowland Heathland Habitats

The tables below give information on the extent (area covered) and distribution of lowland heathland habitats around the UK. Much of the habitat occurs in lowland England, including the distinctive heaths of Cornwall, Devon and Dorset, those across Hampshire, Surrey, Sussex and Kent, the eastern heaths of the Suffolk coast, Brecklands and Norfolk, and at Cannock Chase in Staffordshire, and Sherwood Forest in Nottinghamshire. In Wales, most of the lowland heath is found to the west, along the coasts of the Gower, Pembrokeshire, the Llyn Peninsula, and Anglesey. Lowland heath occurs from the coasts to the lowland-upland transition zone in Scotland, and is a scattered habitat across much of Northern Ireland.

Under the EU Habitats Directive, most UK lowland heathland falls within the European dry heaths type or Northern Atlantic wet heaths with *Erica tetralix* type. These types occur widely around the UK and mostly in the uplands, where they can form extensive stands; they are far more localised in lowland areas. The Cornish heaths on the Lizard Peninsular include all areas of the Dry Atlantic coastal heaths with *Erica vagans* type, whilst the Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix* type is a rare habitat occurring only in Cornwall, the Somerset/Devon border, and Dorset.

3.1 UK BAP habitats

The table below shows the estimated extent of the lowland heathland priority habitat recognised by the UK Biodiversity Action Plan. Values are given for the overall total and the percentage in each country. The data is based on values extracted from the [Biodiversity Action Reporting System \(BARS\)](#).

Table 3.1. Estimated extent (based on 2008 reporting data) of the two lowland heathland priority habitats recognised by the UK Biodiversity Action Plan.

UK BAP priority habitats	England (ha)	Scotland (ha)	Wales (ha)	Northern Ireland (ha)	United Kingdom (ha)
Lowland heathland	58,000	18,888	12,500	5,778	95,116

3.2 EU Habitats Directive Annex I types

The table below shows the estimated extent of lowland heathland habitat types on Annex I of the EU Habitats Directive.

Table 3.2. Estimated extent (in 2013) of the lowland wetland habitat types listed under Annex 1 of the EU Habitats Directive (derived from the 2013 UK Report on Implementation of the Habitats Directive). Note that for habitats that occur in both the lowlands and uplands, the area given is the total for both locations.

EU Habitats Directive Annex I types	England (ha)	Scotland (ha)	Wales (ha)	Northern Ireland (ha)	UK (ha)
H4030 European dry heaths [most of this habitat occurs in upland areas]	[320,000]	[479,000]	[77,740]	[16,800]	[893,540]
H4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> [most of this habitat occurs in upland areas]	[25,000]	[370,000]	[14,414]	[58,300]	[467,714]

EU Habitats Directive Annex I types)	England (ha)	Scotland (ha)	Wales (ha)	Northern Ireland (ha)	UK (ha)
H7150 Depressions on peat substrates of the <i>Rhynchosporin</i> [most of this habitat occurs in upland areas]	[>428]*	[>781]*	[17]*	unknown	[>1,226]*
H4040 Dry Atlantic coastal heaths with <i>Erica vagans</i>	600	–	–	–	600
H4020 Temperate Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i>	400	–	–	–	400

* minimum value based on or partly on the area of the habitat with SACs.

4 Threats to UK Lowland Heathland Habitats

UK lowland heathland habitats and their associated species are threatened by a range of factors. The text below lists the major pressures and threats and provides a summary of each. This is based on information in the 3rd UK Report on Implementation of the Habitats Directive, the UK Biodiversity Habitat Action Plans, and Common Standards Monitoring for Designated Sites: First Six Year Report.

4.1 Lack of appropriate site management



Lowland heathland is generally dependent on regular grazing by livestock, controlled burning, and prevention of encroachment by bracken, scrub or trees to maintain it in favourable condition. Many sites lack such management or are only recovering after recent re-instatement of such practices. Uncontrolled 'wild' fires have caused severe damage to a number of lowland heaths. However, given time, comparable heathland vegetation often reasserts itself.

4.2 Habitat loss & fragmentation

Many areas of heathland in lowland areas have been lost to housing, other urban development, planting mainly with coniferous trees, or conversion to farmland. This has also had the knock-on effect of leaving some areas of surviving heathland in a highly fragmented and isolated state – there is growing concern that opportunities for heathland species to disperse between such sites and to re-colonise sites under-going restoration are inevitably very limited. Encouragingly, the profile of the habitat has increased in recent years and losses have diminished greatly. In places, heaths have been re-established by removing conifer plantations and converting areas of former farmland (see a [snapshot of heathland restoration across England](#)). Nevertheless, development pressure remains a significant local threat.

4.3 Recreational & urban disturbance

Heathland is a popular recreational resource. This can lead to excessive disturbance of wildlife, pollution through dog-fouling and littering, and damage through trampling and

erosion. This type of pressure is much increased where heathland sites are located close to built-up areas.

4.4 Air pollution

Air pollution can result in the deposition of unwanted nutrients onto lowland heathland, which can critically alter the acidity and overall nutrient status of sites. Assessments indicate that critical air pollution loads for acidity and nutrient nitrogen are being exceeded on many lowland heaths, with dry deposition of ammonia very high in most parts of England, Wales and Northern Ireland. For further info: [UK Air Pollution Information System \(APIS\)](#).

4.4 *Phytophthora* disease

In recent years, dieback of bilberry/blaeberry on lowland heathland caused by species of *Phytophthora* has increased. These soil or water-borne fungus may have been introduced via the international horticultural trade. They have caused localised severe dieback of bilberry/blaeberry plants in the south-west and Midlands; this could spread and affect a wide-range of ericaceous dwarf-shrubs.

4.5 Water pollution and drainage

Wet heaths are dependent on adequate levels of unpolluted water. In places, such heathland is threatened by drainage or inflow of enriched water, which encourages non-heathland and rank vegetation to spread.

5 Condition of UK Lowland Heathland Habitats

The condition of UK lowland heathland habitats has been assessed using Commons Standards Monitoring Guidance for Lowland heathland habitats. This involves making an assessment of individual sites using a series of habitat characteristics or attributes and standardised condition categories.

Sites are judged to be in favourable condition when the objectives for the habitat are being met. Sites with habitat that is in an unsatisfactory state are classed as in unfavourable condition. Where this is the case, a judgement is made as to whether the habitat is: (i) recovering – moving towards the desired state; (ii) declining – moving away from the desired state; or (iii) no-change – neither improving nor declining. Sites are classed as destroyed (partially or completely) when the habitat is no longer present and there is no prospect of being able to restore it.

5.1 Condition on designated sites

The tables below summarise information on the condition of lowland heathland habitat at a UK-level as reported in 2006-07.

On sites designated as SSSI/ASSIs and SACs, the condition of the majority of the habitat was either favourable or unfavourable recovering. Nevertheless, a third was unfavourable and did not show signs of recovery. Information from SACs on the four lowland heathland habitat types recognised under the EU Habitats Directive showed that the condition of these varied greatly: one habitat was entirely favourable; one was mostly unfavourable recovering; and the majority of the other two was unfavourable with no signs of recovery.

Since 2006-07 the condition of some coastal habitats has improved (e.g. see [The State of the Natural Environment 2008](#)).

Tables of condition of UK lowland heathland habitats: The tables are based on data from the Common Standards Monitoring for Designated Sites: First Six Year Report (2006) and the 2nd UK Report on Implementation of the Habitats Directive (2007)

Table 5.1. Sites designated as SSSI/ASSIs (data from 2006)

	Favourable	Unfavourable recovering	Unfavourable not recovering	Destroyed or part destroyed
Lowland heathland	17%	47%	33%	3%

Table 5.2. Condition of Sites designated as Special Areas of Conservation (SAC) (data from 2007)

	Favourable	Unfavourable recovering	Unfavourable not recovering	Destroyed or part destroyed
Lowland heathland	21%	43%	33%	3%

Table 5.3. Sites designated as Special Areas of Conservation (SAC) – broken down into EU Habitats Directive Annex I types (data from 2007).

	Favourable	Unfavourable recovering	Unfavourable not recovering
H4040 Dry Atlantic coastal heaths with <i>Erica vagans</i>	100%	-	-
H4020 Temperate Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i>	19%	81%	-
H7150 Depressions on peat substrates of the <i>Rhynchosporin</i> [most of this habitat occurs in upland areas]	[43%]	[26%]	[31%]
H4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> [most of this habitat occurs in upland areas]	[21%]	[28%]	[51%]
H4030 European dry heaths [most of this habitat occurs in upland areas]	[6%]	[28%]	[66%]

[all tables created Dec 2010]

6 Protective Measures for UK Lowland Heathland Habitats

6.1 Conventions and legislation

A number of International Conventions, European Directives and pieces of National Legislation apply to UK lowland heathland habitats. Amongst the most important are:

- [The Convention on Biological Diversity](#)
- [The Convention on the Conservation of European Wildlife and Natural Habitats](#)
- [The EU Habitats Directive](#)
- [The EU Birds Directive](#)
- [The EU Water Framework Directive](#)
- [The Wildlife and Countryside Act](#) (plus amendments & supplements)

These have been instrumental in the design of the following biodiversity strategies, priority habitat lists, and site-based designations.

6.2 Biodiversity Strategies

The [UK Post-2010 Biodiversity Framework](#) sets out priorities for biodiversity conservation activities at a UK-level. Additional priorities are set out in the Country Biodiversity Strategies for England, Northern Ireland, Scotland and Wales. The main objectives of these strategies are to:

- halt and reverse previous biodiversity loss through targeted actions
- increase awareness, understanding, enjoyment and engagement with biodiversity conservation
- restore and enhance biodiversity through better planning, design and practice
- ensure biodiversity is taken into account in wider decision-making
- ensure knowledge on biodiversity is available to policy makers and practitioners

These high-level strategies largely succeeded the [UK Biodiversity Action Plan](#) (UK BAP), which operated from 1992-2012.

6.3 Priority habitats

Statutory lists of habitats of priority or principal importance for biodiversity conservation exist for [England](#), [Scotland](#), [Wales](#) and [Northern Ireland](#). These are largely based on the [UK BAP priority habitats list](#). This includes all lowland heathland habitat.

6.4 Site-based designations

Special Areas of Conservation: Special Areas of Conservation (SACs) are strictly protected sites designated under the EU Habitats Directive. They contribute to the [Natura 2000 Network](#), which consists of a series of high-quality nature reserves spread across the European Union. A total of about 74 SACs, covering an area of around 30,000 ha, have been designated to represent the five UK lowland heathland habitat types listed under Annex I of the EU Habitats Directive. Information on individual UK SACs can be found in the [UK SAC information](#) spreadsheet. These were selected according to various [SAC selection criteria and principles](#).

Sites/Areas of Special Scientific Interest: SSSI/ASSIs are the fundamental statutory mechanism for protecting sites of ecological and geological interest in the UK. Sites of Special Scientific Interest (SSSIs) apply in England, Scotland and Wales, whilst Areas of Special Scientific Interest (ASSIs) apply in Northern Ireland. Legal responsibility for notifying and protecting such sites lies with the relevant statutory nature conservation agency in each country. The SSSI/ASSI series is intended to form a representative network covering the full range of wild flora and fauna, and especially those types and individual sites that are of greatest value to nature conservation. Detailed [Guidelines for the selection of biological SSSIs](#) are available specifically for lowland heathland habitats.

The tables below shows the extent of lowland heathland habitats in SSSIs in England and Wales only. Comparable data was not available for Northern Ireland or Scotland.

Table 6.1. SSSIs in England

	Area of habitat within SSSIs (ha)	Total area of habitat (ha)	% of habitat within SSSIs
Lowland heathland	45,847	56,819	77%

(created Dec 2015 from data in Biodiversity 2020 England Indicators December 2014 Report)

Table 6.2. SSSIs in Wales

	Area of habitat within SSSIs (ha)	Total area of habitat (ha)	% of habitat within SSSIs
Dry heath	1,248	8,920	14%
Wet heath	969	3,600	27%

(created May 2010 from: (i) SSSI area data from CCW Features Database April 2010; (ii) total habitat area data from Blackstock, T.H. et al. (2010) Habitats of Wales: A Comprehensive Field Survey 1979-1997, University of Wales Press)

7 Management of UK Lowland Heathland Habitats

Given the threats to lowland heathland habitats, it is often necessary to undertake some form of management to improve or maintain their condition. There are a number of sources of information to guide such action, examples of which are outlined below.

7.1 Habitat management search engine

JNCC has developed a customised search engine, [Habitat Management on the Web](#), which is designed to direct users to information about how to manage UK terrestrial and freshwater habitats for biodiversity conservation.

7.2 Annex I management models

The European Commission has published [Management Models for Annex I Habitats](#), including some heathland examples. Each document includes information on the distribution, ecological requirements of the habitat, main trends and threats. Relevant management actions and prescriptions are described in detail. Main constraints, risks and modifiers of the proposed management have been also included. Finally, relevant parameters for cost estimates, cost estimate examples and potential sources of EU financing are illustrated.

7.3 Guidance on heathland burning management

Where heathland is managed by burning, it is important to observe the codes of practice produced by each country. These include: the [English Heather and Grass Burning Code](#); the [Welsh Heather and Grass Burning Code](#); and the [Scottish Muirburn Code](#) and [Muirburn Guide to Best Practice](#).

7.4 Lowland heathland management for invertebrates

[Buglife](#) has produced guidance for the management of UK BAP priority habitats for invertebrates, including advice on [Management of Lowland Heathland for Invertebrates](#).

7.5 Managing lowland heathland for reptiles

The [Reptile Habitat Management Handbook](#), produced by Amphibian and Reptile Conservation, brings together habitat management advice for all native UK reptiles – lowland heathland being a particularly important habitat for this group of species.

7.6 Managing heathland in the face of climate change

The [2008 National Heathland Conference](#) reported on the latest developments in heathland management and science in terms of climate change, nutrient management, fire management, housing and development, and heathland interpretation.

8 Resources for UK Lowland Heathland Habitats

This page aims to list additional sources of information on lowland heathland issues, partnerships and initiatives. See also:

- [Management of UK Lowland Heathland](#)
- [JNCC heathland publications](#)
- [JNCC Lowland Heathland Lead Co-ordination Network Newsletters](#)

8.1 Statutory Agencies

- [Natural Resources Wales](#) (formerly Countryside Council for Wales)
- [Natural England](#)
- [Northern Ireland Environment Agency](#)
- [Scottish Natural Heritage](#)
- [Forestry Commission](#)

8.2 Datasets

- [Heathland Extent and Potential \(HEaP\) maps](#)
- [East of England Heathland Opportunity Mapping Project](#)
- [National Biodiversity Network Gateway](#)
- [Atlas of the British and Irish flora](#)
- [Nature on the Map](#)
- [Natural England GIS Digital Boundary Datasets](#)
- [Countryside Survey](#)
- [JNCC NVC distribution maps](#)
- [CCW Phase 1 habitat survey](#)

8.3 Partnerships & projects

- [Dorset Heathland Project](#)
- [European Heathland network](#)
- [Hampshire Heathland Project](#)
- [HeathnetUK](#)
- [New Forest LIFE II Project](#)
- [Surrey Heathland Project](#)
- [Tomorrow's Heathland Heritage Programme](#)
- [The Coversands Heathland Project](#)
- [The HEATH Project](#)
- [Urban Heaths LIFE Project](#)