JOINT NATURE CONSERVATION COMMITTEE

Common Standards Monitoring
for Designated Sites: First Six Year Report

Habitats

Common Standards Monitoring for Designated Sites: First Six Year Report

Legislation in the United Kingdom makes provision for Sites of Special Scientific Interest (SSSIs) designated for their biological or geological features. By March 2005, there were 6,569 SSSIs in England, Scotland and Wales, and a further 225 Areas of Special Scientific Interest in Northern Ireland (ASSIs), covering between them over 2.4 million hectares.

The United Kingdom has also entered into international commitments to establish a network of protected sites under the Ramsar Convention. Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) are required to be established under the EC Birds and Habitats Directives respectively. In many cases, the same area of land is protected by more than one designation; the basic building block is the SSSI or ASSI, which underpins the vast majority of the international site designations.

The basis of the common standards for site monitoring is that those special features for which the site was designated are assessed to determine whether they are in a satisfactory condition. The nature conservation component which is assessed is therefore not the site itself, but the feature (e.g. habitat, species, or earth science feature) for which it was designated. Sites may have one, two, or several interest features on them. Key attributes of the feature (e.g. extent, quality, supporting processes) are identified and targets set for each. Each attribute is then measured and compared against the target value set. If all the targets are met, the feature is in favourable condition. Human activities and other factors which are likely to be affecting the site adversely, and the conservation measures taken to maintain or restore the site, are also recorded.

The report is presented in four parts:

1. Summary
2. Geology
3. Species
4. Habitats

The first part is an introduction and executive summary which draws together results across the site networks as a whole. The subsequent three parts present the detailed data collated in 44 reporting categories. A standardised set of presentations and graphics have been created for each reporting category which portray the detailed results.

This information can also be found on the JNCC website at **www.jncc.gov.uk/page-3520**; these data will be updated at regular intervals.

Recommended citation:

Williams, J.M., ed. 2006. *Common Standards Monitoring for Designated Sites: First Six Year Report.* Peterborough, JNCC.

Habitats

Limestone pavement, inland cliffs and screes

Context

This reporting category covers both natural and artificial exposed rock surfaces, such as inland cliffs, caves, and screes and limestone pavements, as well as various forms of excavations and waste tips such as quarries and quarry waste. These habitats are typically upland in distribution, though there are examples in the lowlands, especially of calaminarian grassland.

A number of vegetation types associated with rock habitats are also included in this reporting category. These are:

- chasmophytic vegetation (plant communities that colonise the cracks and fissures of rock faces);
- calaminarian grassland (a grassland type which is found on soils which have levels of heavy metals, such as lead, chromium and copper, that are toxic to most plant species); and
- certain types of tall herb and fern vegetation, which as a result of grazing pressure are much reduced in extent and confined to areas inaccessible to grazing animals such as cliff faces and ledges, and to a lesser extent, on lightly-grazed steep rocky slopes and boulder fields.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 5 Non-montane rock habitats* and *Chapter 10 Artificial habitats* (for calaminarian grassland) of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

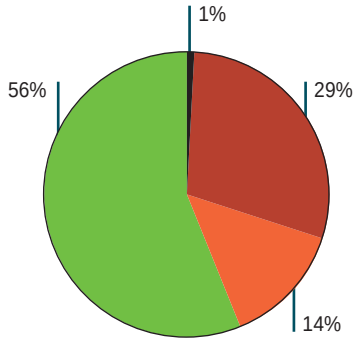
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition*	60%	56%	58%
Main monitoring coverage	E, S, W	E, S	
Reported assessments	117	155	272
Completeness of assessments	67%	unknown	
Distribution of features			UK

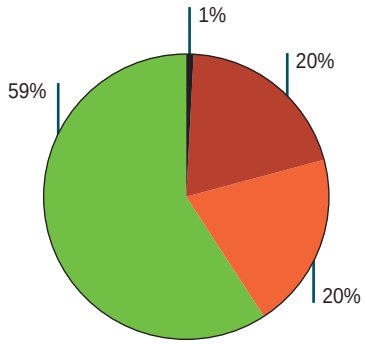
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	34	115
Scotland	69	35
Wales	10	0
Northern Ireland	4	5
United Kingdom	**117**	**155**

Condition assessment - SSSI features



Condition assessment - Natura 2000



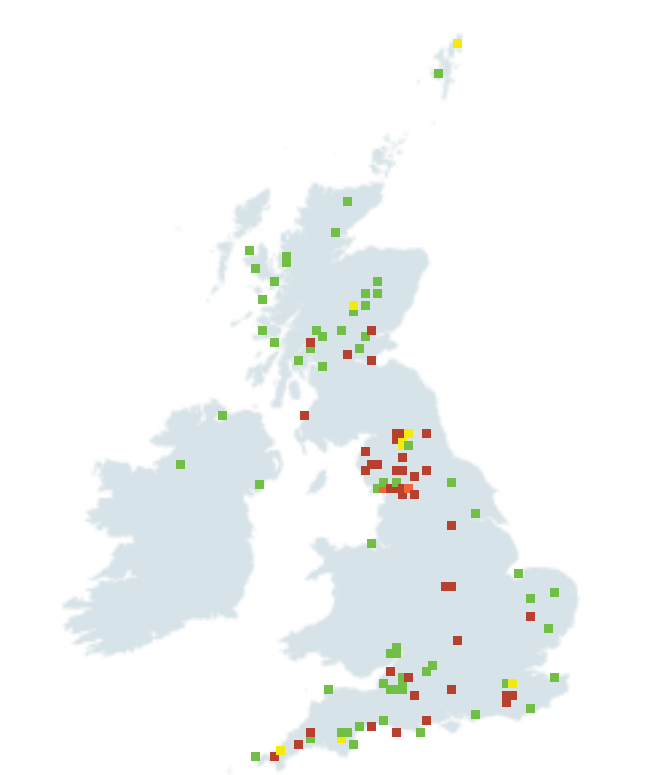
Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

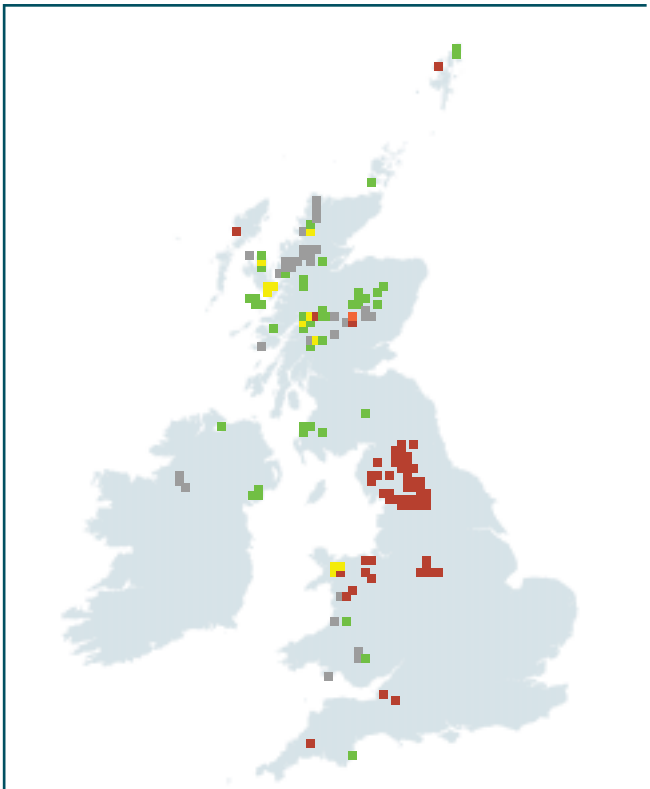
**Note: the figure for favourable condition in the pie charts is marginally different from that shown in the summary statistics table - this is a result of rounding to show small segments effectively; the figures in the summary statistics table are correct.*

SSSIs



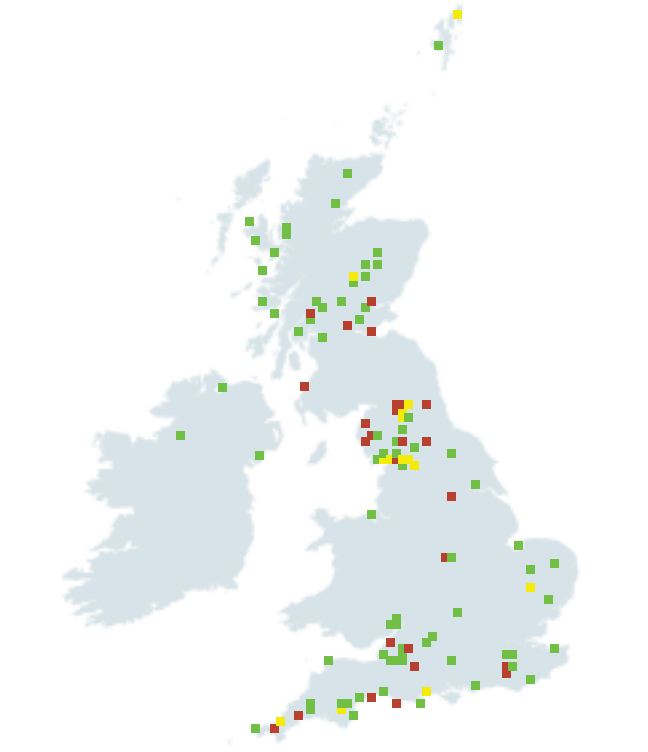
Current condition of SSSI/ASSI features

Natura 2000

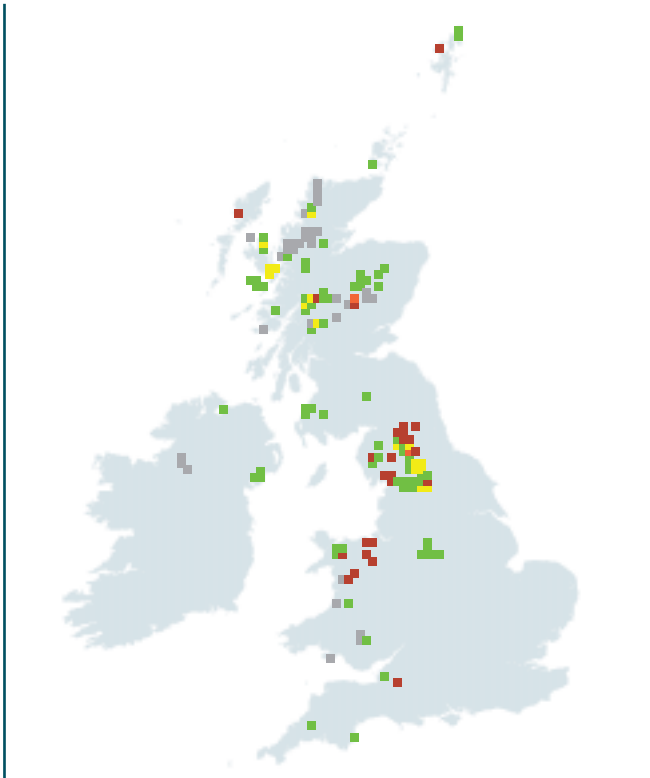


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

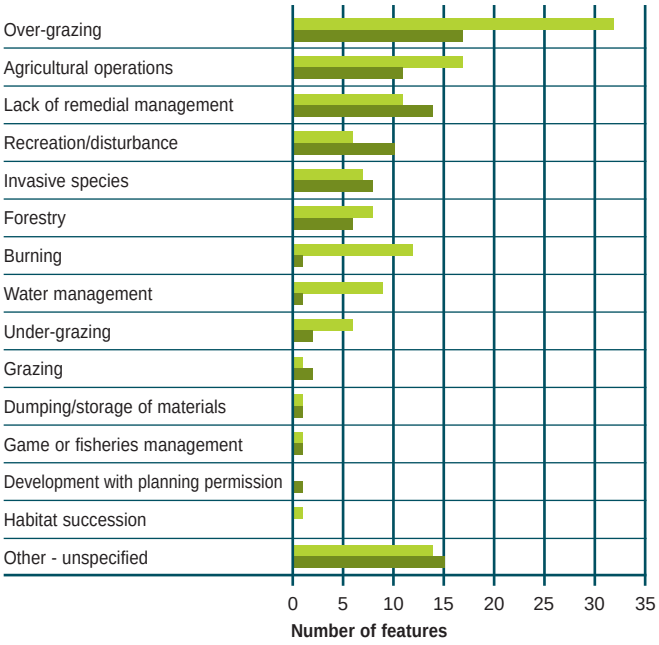
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20% Not assessed (Natura 2000 only)

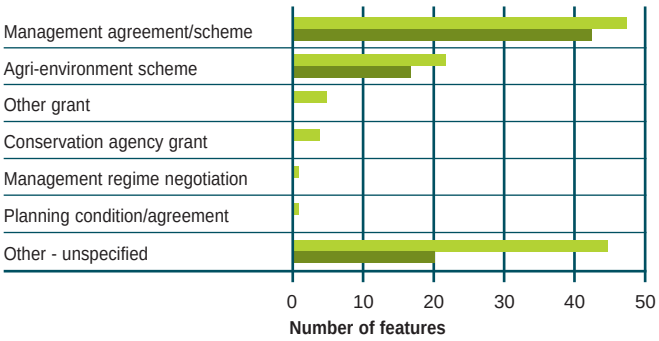
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

58% of rocky habitat features reported are in favourable condition. This is well above the average for terrestrial habitats, above the average for habitat features, and about the average for all features combined. 56% of the SSSI/ASSI features and 60% of SAC features reported are in favourable condition. 14% of A/SSSI and 20% of SAC features reported are unfavourable-recovering.

There is considerable variation between habitats types in the reporting category. The percentage of features reported in favourable condition includes 25% of caves, 27% of limestone pavements, 71% of crevice habitats, 72% of scree habitats (both acid and base-rich), and 79% of herb-rich habitats.

The reported activity that has had the greatest impact contributing to unfavourable condition on rocky habitat features is over-grazing. This leads to loss of vegetation structure and the failure of more palatable or vulnerable species to reproduce and maintain themselves. It can also lead to the loss of plant species and associated fauna, and the spread of rank, unpalatable plant species. In extreme cases, very heavy grazing and trampling can lead to exposure of bare soil and erosion. There is, therefore, a need for grazing to be undertaken at the right time and with the right intensity. The reporting of measures taken to address unfavourable condition indicates that management agreements/schemes and agri-environment schemes are in place on many sites. However, it is not yet known how long it may take to return rocky habitat features to favourable condition.

Calaminarian grassland

46% of calaminarian grassland features reported are in favourable condition. 67% of A/SSSI and 39% of SAC features reported are favourable. A further 28% of SAC features reported are unfavourable-recovering.

Unfavourable condition has resulted at least partly from under-management and successional change. Supplementary feeding can also cause problems through intensive trampling and dunging in limited areas. Underlying causes of under-management are still thought to be largely due to current agricultural economics and policies, leading to a reluctance to keep stock on pasture perceived to have little nutritional value. The extent to which atmospheric nutrient deposition is affecting the composition of grassland sites is a largely unknown quantity.

Montane grasslands and heaths

Context

Montane grasslands and heaths include a range of vegetation types that occur exclusively in mountains, such as prostrate dwarf shrub heath, snow-bed communities, sedge and rush heaths, and moss heaths. The distinction between the sub-montane and montane zone is often blurred and the two usually merge through a band of transitional vegetation.

Exclusively montane habitat types can be recognised by their floristic composition and character (prostrate vegetation). Widespread arctic-alpine species such as stiff sedge *Carex bigelowii*, crowberry *Empetrum nigrum hermaphroditum*, trailing azalea *Loiseleuria procumbens*, dwarf willow *Salix herbacea*, and alpine clubmoss *Diphasium alpinum*, in association with woolly fringe-moss *Racomitrium lanuginosum* or cladonia lichens *Cladonia* spp., and other macro-lichens such as *Cetraria islandica*, are indicators of montane communities. Montane calcareous grasslands are enriched by a distinctive assemblage of arctic-alpine plants, such as alpine lady's mantle *Alchemilla alpina*, moss campion *Silene acaulis*, spring gentian *Gentiana verna* and mountain avens *Dryas octopetala*.

Calcareous grasslands, fens and springs, blanket bog and rock habitats which also occur in the montane zone are included in this habitat type rather than in the *Calcareous grassland*, *Fens and marshes*, *Bog*, and *Limestone pavement, inland cliffs and scree* reporting categories.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 9 Upland habitats* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

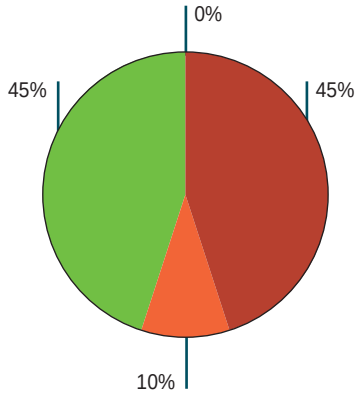
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	27%	45%	32%
Main monitoring coverage	E, S	E, S	
Reported assessments	49	20	69
Completeness of assessments	53%	unknown	
Distribution of features			UK

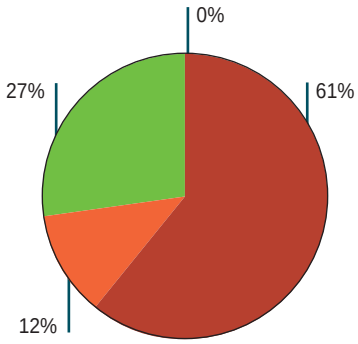
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	5	7
Scotland	41	11
Wales	1	0
Northern Ireland	2	2
United Kingdom	**49**	**20**

Condition assessment - SSSI features



Condition assessment - Natura 2000



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

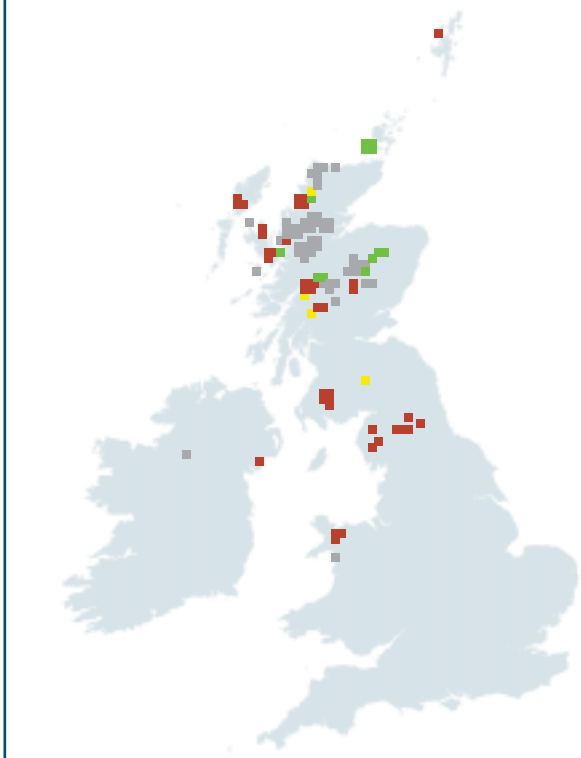
Key:

Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

SSSIs

Current condition of SSSI/ASSI features

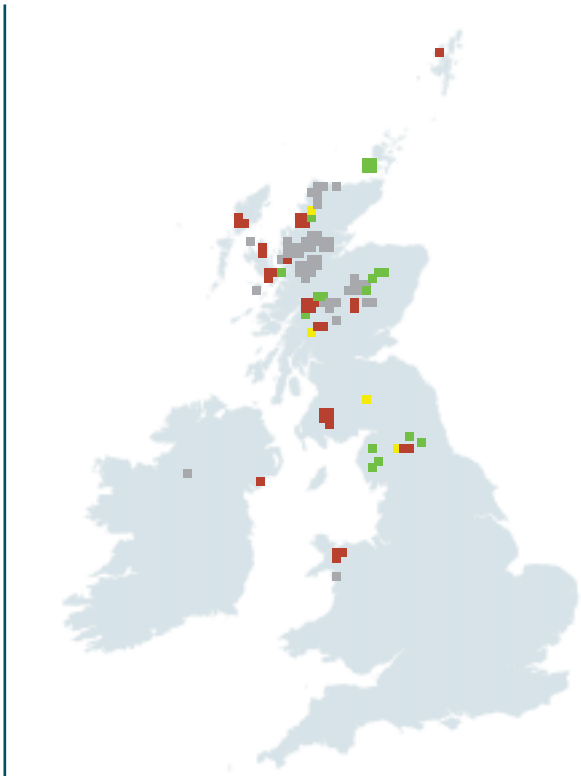
Natura 2000



Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).

Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

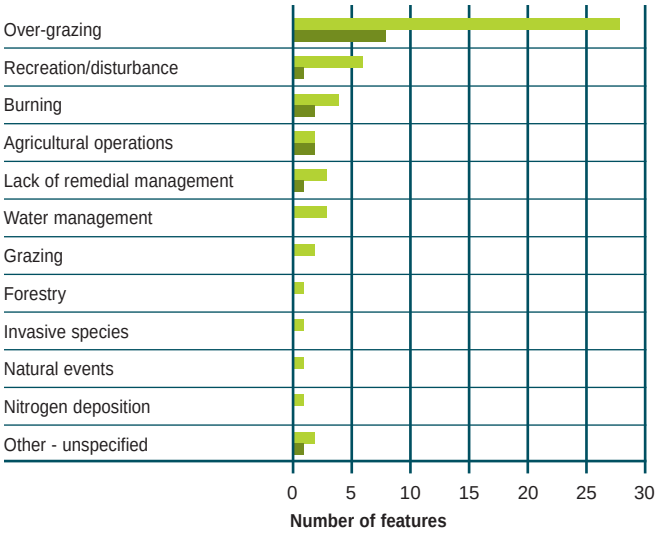
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100%	50-80%	20-50%	0-20%	Not assessed (Natura 2000 only)

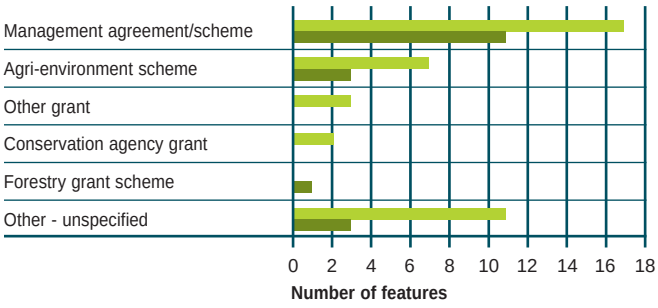
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

32% of alpine grass and heath features reported are in favourable condition. This is below the average for terrestrial habitats, all habitats or all features combined. 45% of the A/SSSI features and 27% of SAC features reported are in favourable condition. 10% of A/SSSI and 12% of SAC features reported are unfavourable-recovering.

The reported activity that has had the greatest impact contributing to unfavourable condition on montane features is over-grazing. This leads to loss of vegetation structure and the failure of more palatable or vulnerable species to reproduce and maintain themselves. It can also lead to the loss of plant species and associated fauna, and the spread of rank, unpalatable plant species. In extreme cases, very heavy grazing and trampling can lead to exposure of bare soil and erosion. There is, therefore, a need for grazing to be undertaken at the right time and with the right intensity. Recent research indicates that air pollution in the form of nitrogen deposition and ozone, may have significant impacts on montane vegetation. At the present time, however, it is not possible to determine what the detail of the impacts are, or what interaction any such impacts might be having with the grazing pressure.

The reporting of measures taken to address unfavourable condition indicates that management agreements/schemes and agri-environment schemes are in place on many sites. However, it is not yet known how long it may take to return montane features to favourable condition.

Upland Assemblages

Context

The upland assemblages discussed here have only been used in Scotland. The assemblages were devised as a way to encompass the reasoning in the SSSI selection guidelines for selecting sites based on whole topographic units. It has tended to be used in Scotland for SSSIs where citations did not clearly pick out specific habitats. The term is used for areas of mosaic habitats where the assemblage itself is an important aspect. The assemblage can include feature types of: calcareous grasslands, acid grasslands, dwarf shrub heath, fen, marsh and swamp, bogs, montane, inland rock, scrub and woodland.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 9 Upland habitats* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

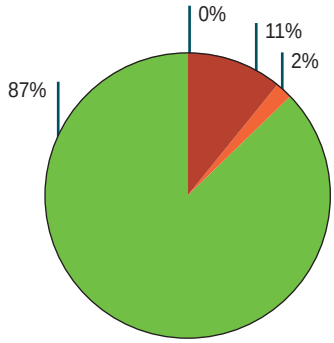
Summary statistics

	SSSI/ASSI	Total
Favourable condition	87%	87%
Main monitoring coverage	S	
Reported assessments	55	55
Completeness of assessments	unknown	
Distribution of features		S

Number of assessments reported by country and site type

Country	SSSI/ASSI
England	0
Scotland	55
Wales	0
Northern Ireland	0
United Kingdom	**55**

Condition assessment - SSSI features



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

Favourable

Unfavourable-recovering

Unfavourable

Destroyed (whole or part)

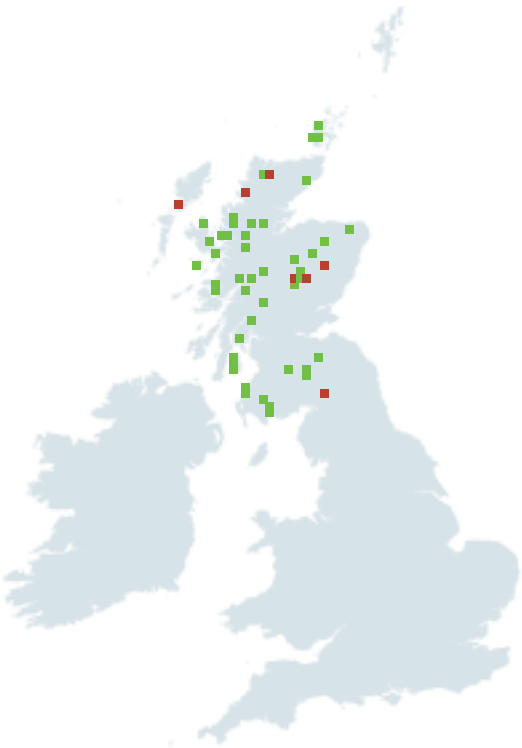
Interpretation

87% of the SSSI features reported are in favourable condition. This is the highest proportion of favourable condition for any habitat type, and is well above the average for terrestrial habitats, all habitats, or for all features combined. A further 2% of features reported are unfavourable-recovering.

However, many of these sites are also covered by SACs, for which particular habitat features have been identified, and the SAC features, which are reported under other reporting categories, probably give a better indication of the condition of features on these sites. The likely reason why these features have been assessed to be in better condition than other upland habitats is that it is the continued presence of the components of the assemblage which is assessed, not the condition of the detailed habitat types.

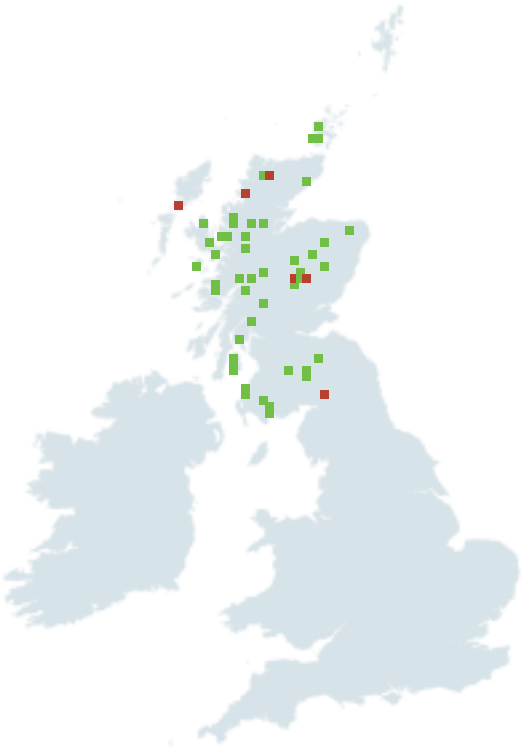
The reported activity that has had the greatest impact contributing to unfavourable condition on upland assemblages is over-grazing, followed by invasive species and burning. There is still a need to get the right amount of grazing at the right time of year. The reporting of measures taken to address unfavourable condition indicates that management agreements/schemes and agri-environment schemes are in place on many sites.

SSSIs



Current condition of SSSI/ASSI features

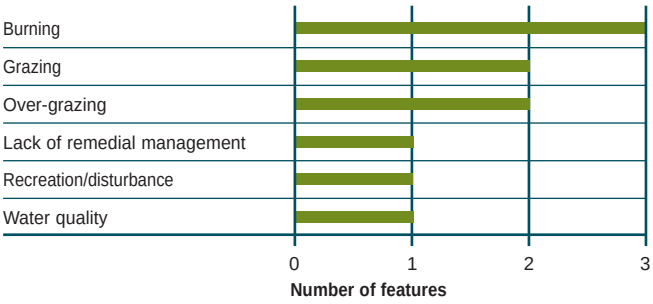
Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'

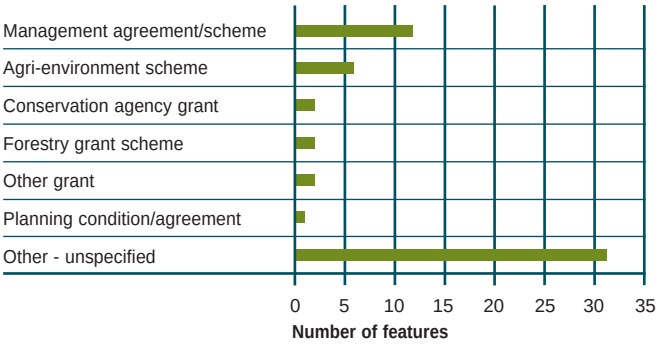
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. This map shows the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

SSSI features

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20%

Acid grasslands - upland

Context

Upland acid grassland is characterised by vegetation dominated by grasses and herbs on a range of lime-deficient soils which have been derived from acid rocks such as sandstones, acid igneous rocks and on superficial deposits such as sands and gravels. Although the habitat is typically species-poor, a wide range of communities occur in the UK. Large expanses of acid grassland, uniform in character, occur in the uplands. These areas have a limited biodiversity interest, but a proportion contribute to the conservation interest of the moor. Upland is defined as above the level of agricultural enclosure. The altitude at which this occurs varies across the UK, typically becoming lower as one travels North. Acid grassland types and snow-bed communities which occur exclusively in the montane (alpine) zone are included in the *Montane grasslands and heaths* reporting category.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 9 Upland habitats* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis – the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

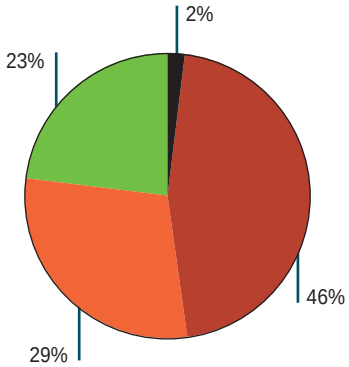
Summary statistics

	SSSI/ASSI	Total
Favourable condition	23%	23%
Main monitoring coverage	E	
Reported assessments	56	56
Completeness of assessments	unknown	
Distribution of features		GB

Number of assessments reported by country and site type

Country	SSSI/ASSI
England	54
Scotland	2
Wales	0
Northern Ireland	0
United Kingdom	**56**

Condition assessment - SSSI features



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

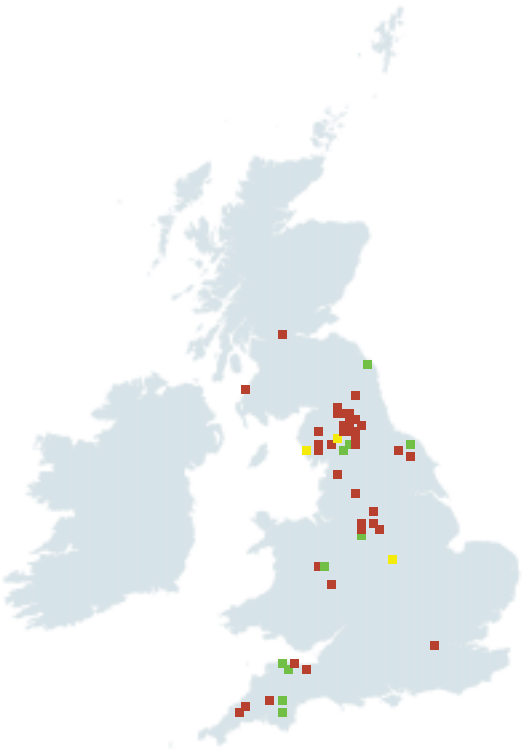
Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

Interpretation

23% of the SSSI acid grassland features reported are in favourable condition. This is well below the average for terrestrial habitats, all habitats, and all features combined. 29% of features reported are unfavourable-recovering. These results raise serious concerns that features at more than three out of four sites are failing to meet favourable condition.

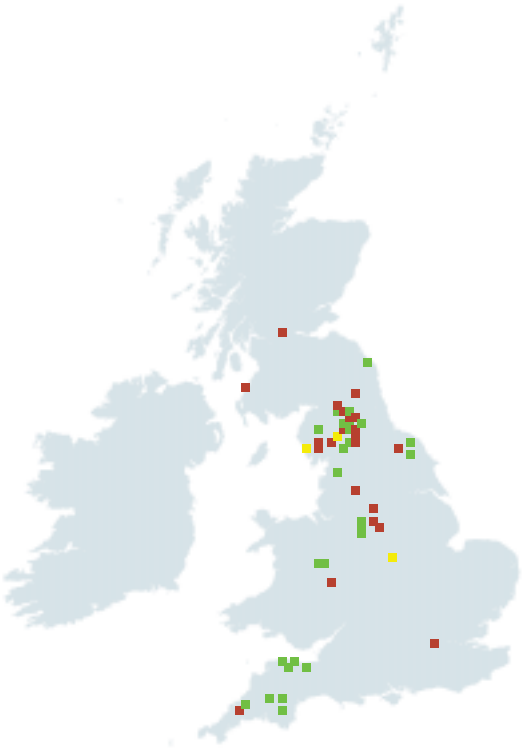
The reported activity that has had the greatest impact contributing to unfavourable condition on acid grassland features is over-grazing, though under-grazing also has an important impact. Both lead to the loss of vegetation structure and the failure of more palatable or vulnerable species to reproduce and maintain themselves. Both can also lead to the loss of plant species and associated fauna, and the spread of rank, unpalatable plant species. In extreme cases, very heavy grazing and trampling can lead to exposure of bare soil and erosion. There is, therefore, a need for grazing to be undertaken at the right time and with the right intensity. The reporting of measures taken to address unfavourable condition indicates that management agreements/schemes and agri-environment schemes are in place on many sites. However, it is not yet known how long it may take to return upland acid grassland features to favourable condition.

SSSIs



Current condition of SSSI/ASSI features

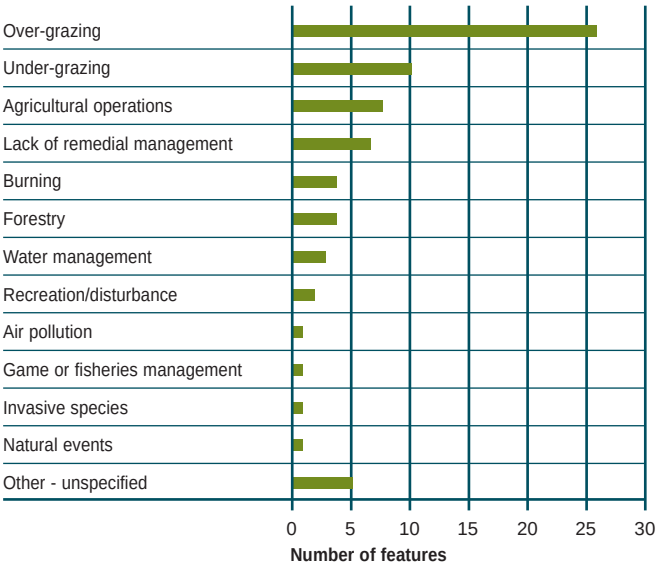
Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'

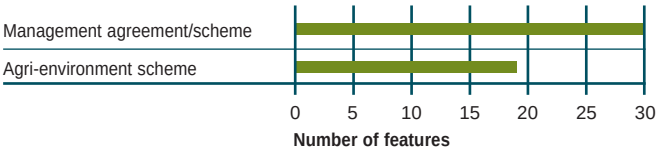
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. This map shows the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

SSSI features

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20%

Acid grasslands - lowland

Context

Lowland acid grassland is characterised by vegetation dominated by grasses and herbs on a range of lime-deficient soils which have been derived from acid rocks such as sandstones, acid igneous rocks and on superficial deposits such as sands and gravels. Although the habitat is typically species-poor, a wide range of communities occur in the UK. In the lowlands, acid grasslands are now rare and, particularly in areas such as East Anglia, they provide an important reservoir of rare species. This habitat type includes a range of types from open communities of very dry sandy soils, which may contain many annual species, through closed pastures on red brown earths, to damp acidic grasslands typically found on gleys and shallow peats. Lowland is defined as below the level of agricultural enclosure. The altitude at which this occurs varies across the UK, typically becoming higher as one travels South.

Acid grassland is characterised by a range of plant species such as heath bedstraw *Galium saxatile*, sheep's-fescue *Festuca ovina*, common bent *Agrostis capillaris*, sheep's sorrel *Rumex acetosella*, sand sedge *Carex arenaria*, wavy hair-grass *Deschampsia flexuosa*, bristle bent *Agrostis curtisii* and tormentil *Potentilla erecta*, with presence and abundance depending on community type and locality. Acid grassland types found on coastal dune and shingle habitats are included in the *Dunes, shingle and machair* reporting category.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 3 Lowland grasslands* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

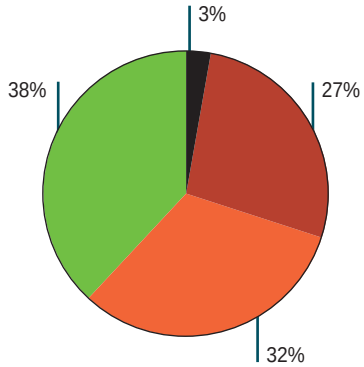
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	0%	38%	38%
Main monitoring coverage	E	E, S	
Reported assessments	1	173	174
Completeness of assessments	100%	unknown	
Distribution of features			GB

Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	1	161
Scotland	0	12
Wales	0	0
Northern Ireland	0	0
United Kingdom	**1**	**173**

Condition assessment - SSSI features



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

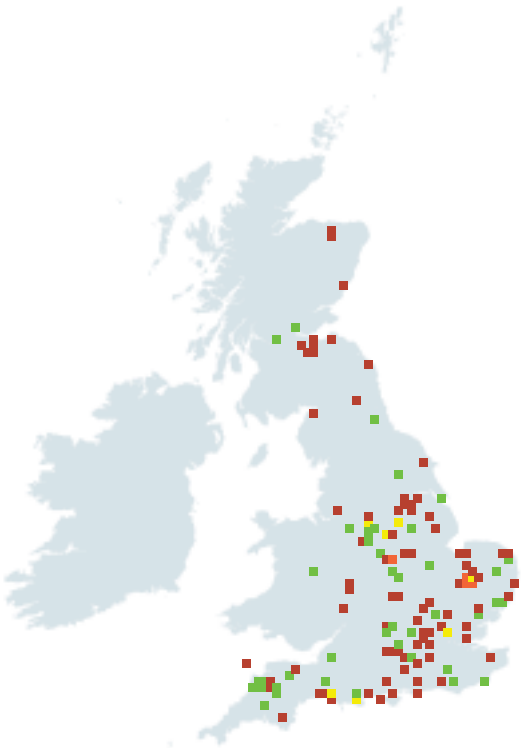
Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

Interpretation

38% of lowland acidic grassland SSSI features reported are in favourable condition. Figures varied somewhat between England and Scotland, but in both countries less than half the total number of sites are considered to be in favourable condition. There is no reason to believe that the situation is different in Wales. The lowland acid grassland interest in the Habitats Directive is limited to inland dunes with open *Corynephorus* and *Agrostis* grassland, for which there is only one SAC in England; this is reported to be in unfavourable-recovering condition. The unfavourable-recovering category accounts for a significant proportion of the assessments reported (31% of SSSI features). Thus many sites, although currently unfavourable, have management in place to promote a return to favourable condition.

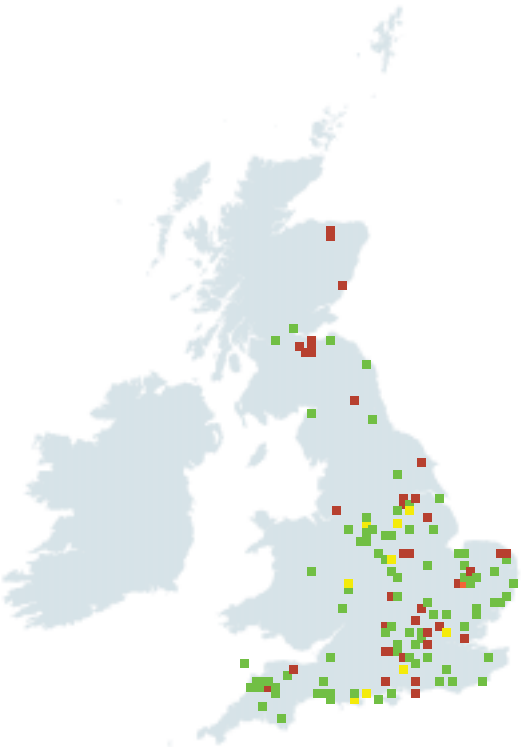
Under-management is the main cause of unfavourable condition, specifically under-grazing and abandonment. Scrub and bracken encroachment are the common results, sometimes together with invasive species problems. Some sites are affected by over-grazing and nutrient-enrichment. Underlying causes of under-management are still thought to be largely due to current agricultural economics and policies, exacerbated by for example, BSE and Foot & Mouth disease, leading to a reluctance to keep stock (large stock in particular) on pasture perceived to have little nutritional value. Nutrient-enrichment through fertilizer application is still a concern, but is very difficult to monitor. In addition, the extent to which atmospheric nitrogen deposition is affecting the composition of grassland sites is a largely unknown quantity.

SSSIs



Current condition of SSSI/ASSI features

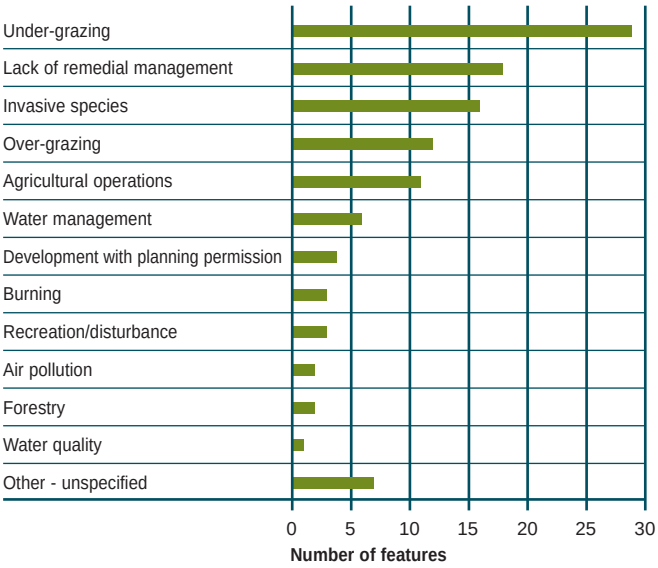
Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'

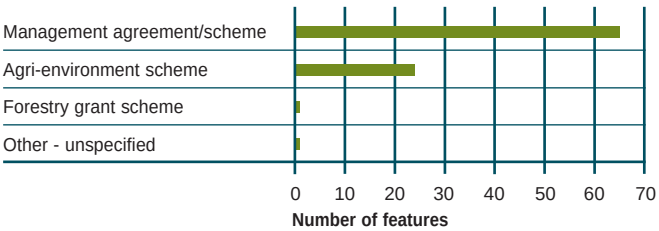
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. This map shows the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

SSSI features

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20%

Neutral grasslands

Context

Neutral grassland is characterised by vegetation dominated by grasses and herbs on a range of circumneutral soils. It includes dry hay meadows and pastures, together with a range of grasslands which are periodically inundated with water or permanently moist. Most of these habitats occur below the level of agriculture enclosure, and are thus considered 'lowlands'.

Neutral grasslands are sometimes referred to as mesotrophic grasslands. For the most part, neutral grassland communities have few diagnostic indicator species but lack strong calcicoles or calcifuges characteristic of base-rich and acid soils respectively. Unimproved or species-rich neutral grasslands are usually managed traditionally as hay-meadows and pastures: species present include a variety of flowering plants, such as snake's-head *Fritillaria meleagris*, dyer's greenweed *Genista tinctoria*, green-winged orchid *Orchis morio*, greater butterfly orchid *Platanthera chlorantha*, pepper saxifrage *Silaum silaus* and wood bitter vetch *Vicia orobus*.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 3 Lowland grasslands* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

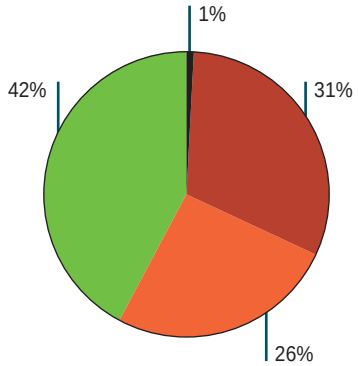
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	38%	42%	42%
Main monitoring coverage	E	E, S	
Reported assessments	8	1066	1074
Completeness of assessments	100%	unknown	
Distribution of features			UK

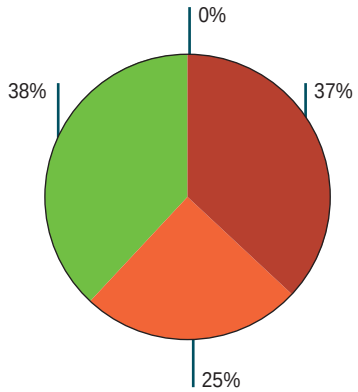
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	8	1004
Scotland	0	57
Wales	0	0
Northern Ireland	0	5
United Kingdom	**8**	**1066**

Condition assessment - SSSI features



Condition assessment - Natura 2000

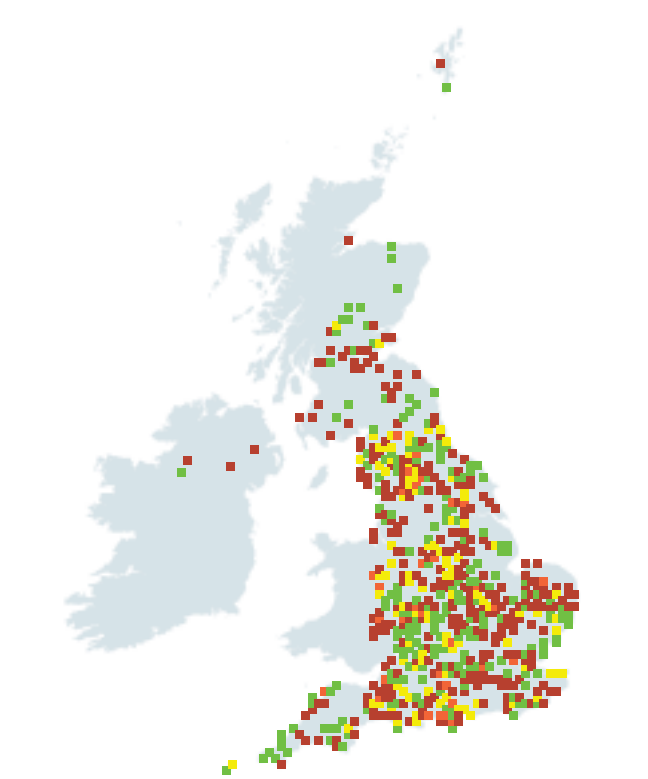


Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

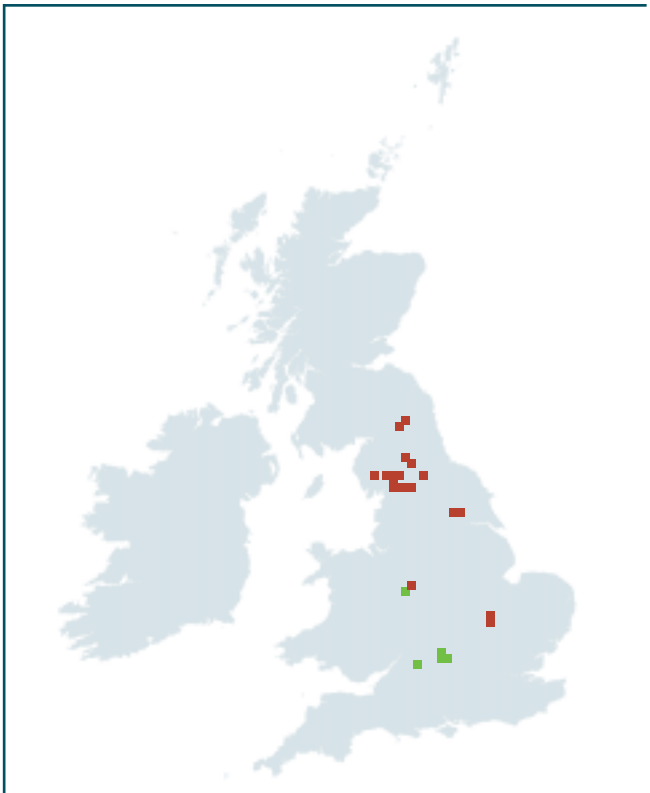
Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

SSSIs



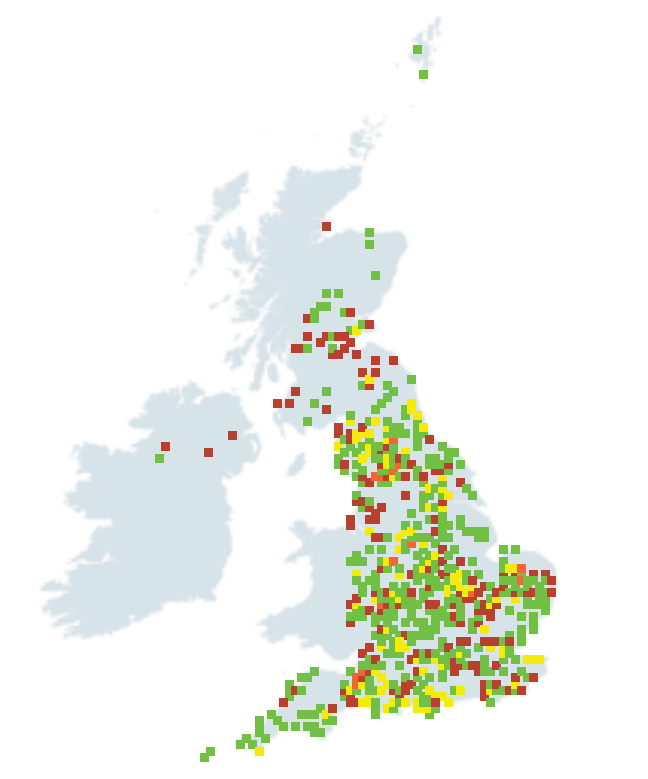
Current condition of SSSI/ASSI features

Natura 2000

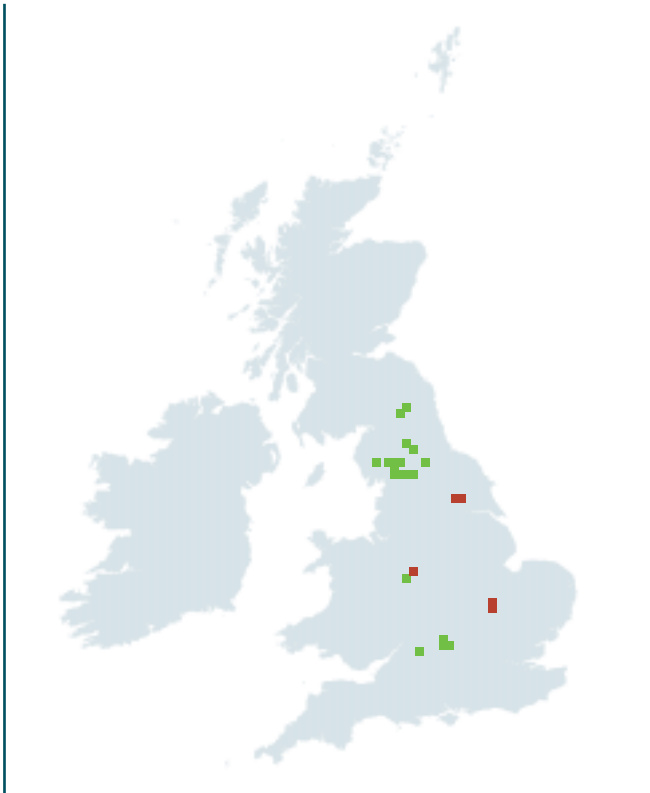


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

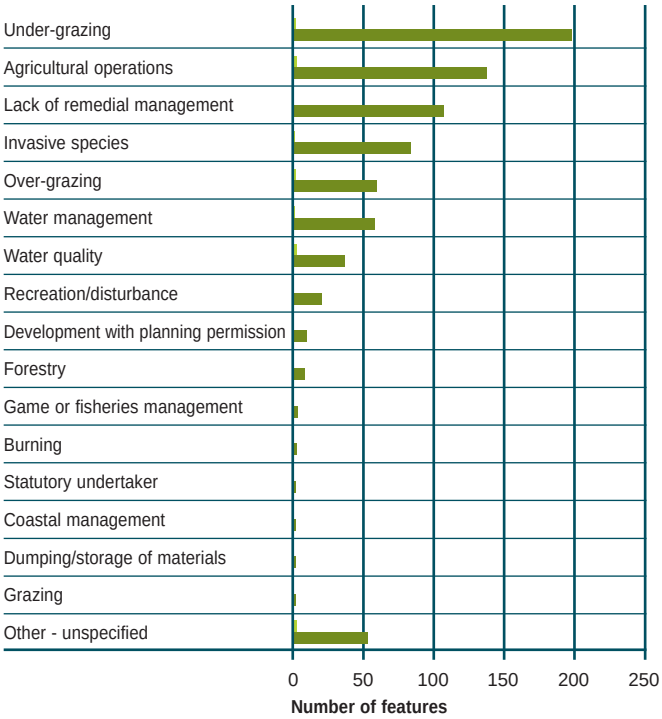
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20% Not assessed (Natura 2000 only)

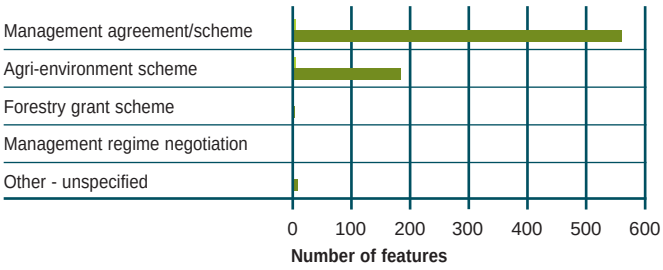
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

42% of neutral grassland features reported are in favourable condition. This is just above the average for terrestrial habitats, about the average for all habitats and below the average for all features combined. 42% of A/SSSI features and 38% of SACs reported are in favourable condition.

The unfavourable-recovering category accounts for about a quarter of features reported (26% of A/SSSI and 25% of SAC features). Thus many sites, although currently unfavourable, have management plans in place to promote a return to favourable condition. Although there are initiatives in place to promote recovery of feature condition, more restoration management is needed.

Under-grazing and abandonment are the main causes of unfavourable condition. Scrub encroachment is the common result, sometimes together with bracken and/or invasive species problems. Additionally, some sites are also affected by over-grazing and nutrient-enrichment. Underlying causes of under-management are still thought to be largely due to current agricultural economics and policies, exacerbated by for example, BSE and Foot & Mouth disease, leading to a reluctance to keep stock (large stock in particular) on pasture perceived to have little nutritional value. Nutrient-enrichment through fertilizer application is still a concern, but is very difficult to monitor. In addition, the extent to which atmospheric nutrient deposition is affecting the composition of lowland neutral grassland sites is a largely unknown quantity.

Calcareous grasslands - upland

Context

Upland calcareous grassland is characterised by vegetation dominated by grasses and herbs on shallow, well-drained soils which are rich in bases (principally calcium carbonate) formed by the weathering of limestone or base-rich rock. Although the base status of such soils is usually high, with a pH of above 6, it may also be more moderate and calcareous grassland communities can occur on soils with a pH as low as 5. Upland is defined as above the level of agricultural enclosure. The altitude at which this occurs varies across the UK, typically becoming lower as one travels North.

Calcareous, or limestone, grasslands contain an exceptional diversity of rare plants, but are particularly characterised by a series of widespread grassland plants which are mainly restricted to lime-rich soils. Species include grasses such as common bent *Agrostis capillaris*, sweet vernal grass *Anthoxanthum odoratum*, quaking-grass *Briza media*, heath-grass *Danthonia decumbens*, sheep's-fescue *Festuca ovina*, and blue moor-grass *Sesleria caerulea*; sedges such as hair sedge *Carex capillaris*, spring sedge *C. caryophyllea*, glaucous sedge *C. flacca*, and carnation sedge *C. panicea*; and forbs such as harebell *Campanula rotundifolia*, limestone bedstraw *Galium sterneri*, common rock-rose *Helianthemum nummularium*, fairy flax *Linum catharticum*, mossy saxifrage *Saxifraga hypnoides*, wild thyme *Thymus polytrichus* and common dog-violet *Viola riviniana*. Calcareous grasslands in the montane zone are included under the *Montane grasslands and heaths* category.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 9 Upland habitats* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

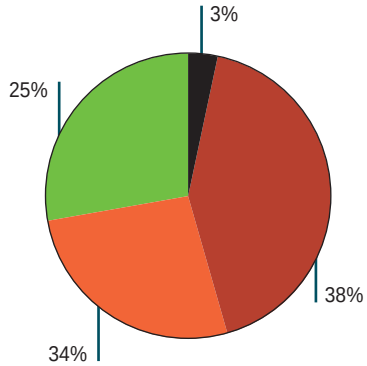
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	15%	25%	23%
Main monitoring coverage	E, S	E, S	
Reported assessments	20	64	84
Completeness of assessments	59%	unknown	
Distribution of features			UK

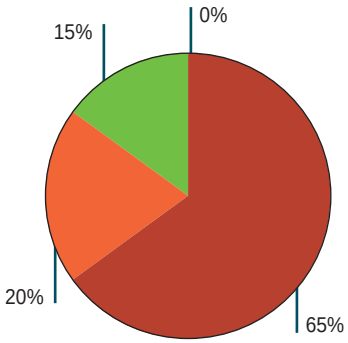
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	7	48
Scotland	12	14
Wales	0	0
Northern Ireland	1	2
United Kingdom	**20**	**64**

Condition assessment - SSSI features



Condition assessment - Natura 2000



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

Favourable

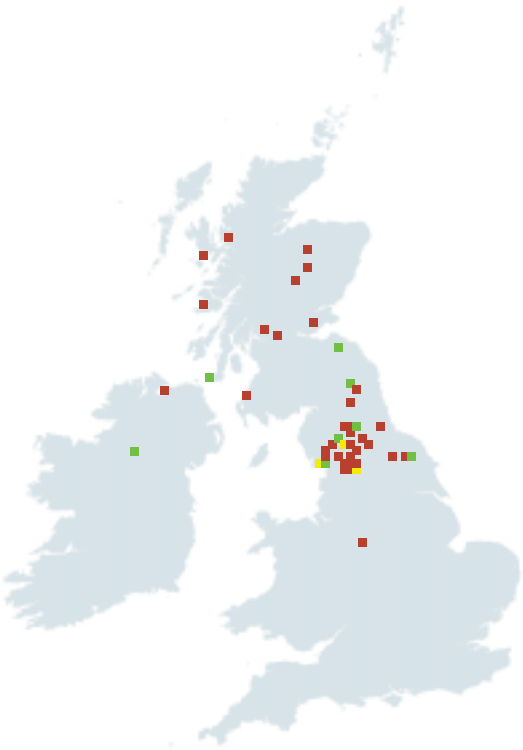
Unfavourable-recovering

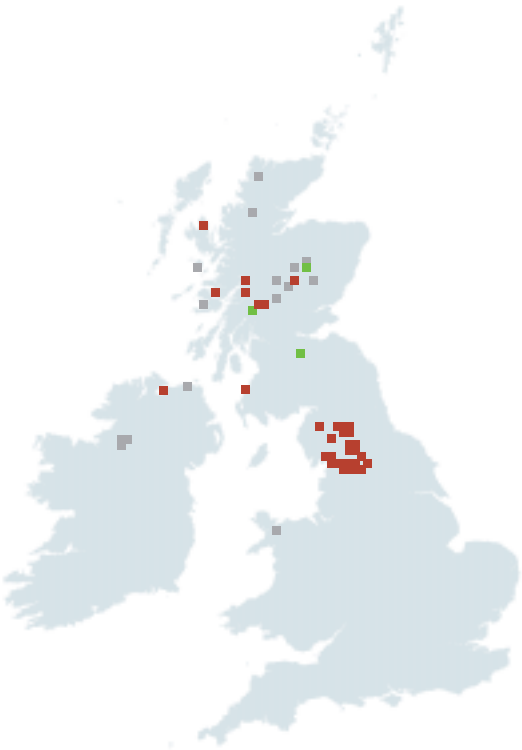
Unfavourable

Destroyed (whole or part)

SSSIs

Natura 2000

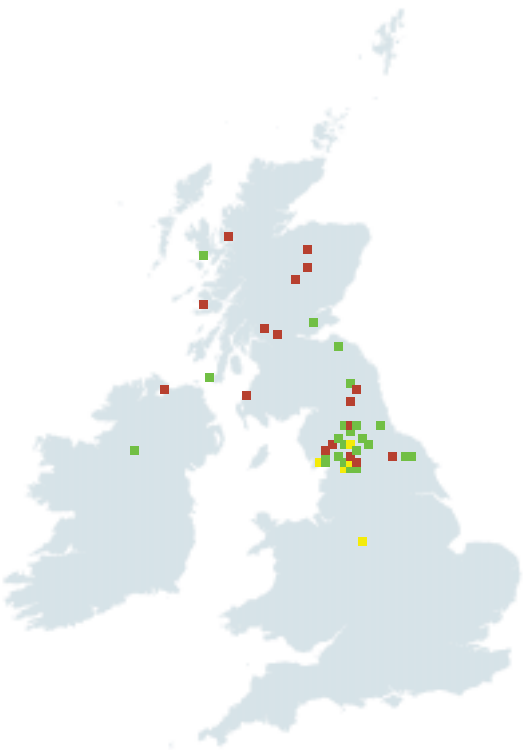




Current condition of SSSI/ASSI features

Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'

Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

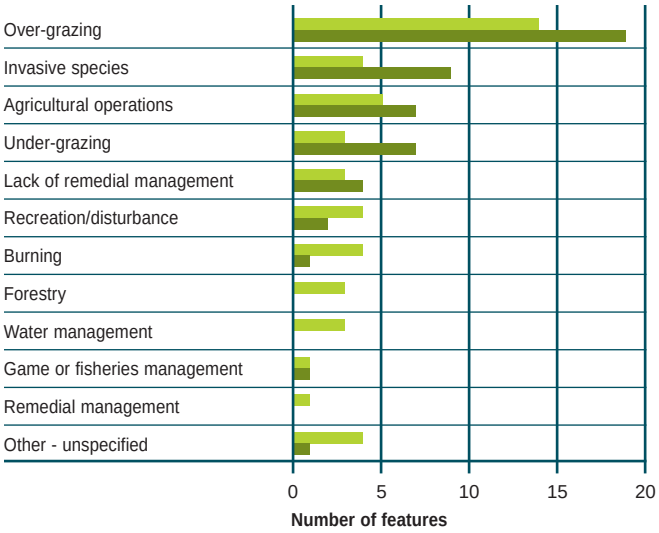
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20% Not assessed (Natura 2000 only)

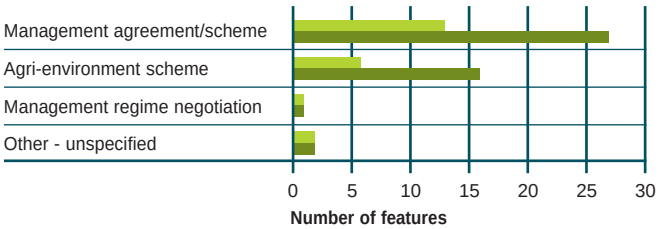
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

23% of upland calcareous grassland features reported are in favourable condition. This result is well below the average for terrestrial habitats, all habitats, and all features combined. 25% of the A/SSSI and 15% of SAC features reported are in favourable condition. A further 34% of A/SSSI and 20% of SAC features reported are unfavourable-recovering. These results raise serious concerns that, at more than three out of four sites, calcareous grassland features are failing to achieve favourable condition.

The reported activity that has had the greatest impact contributing to unfavourable condition on upland calcareous grassland features is over-grazing. This leads to loss of vegetation structure and the failure of more palatable or vulnerable species to reproduce and maintain themselves. It can also lead to the loss of plant species and associated fauna, and the spread of rank, unpalatable plant species. In extreme cases, very heavy grazing and trampling can lead to exposure of bare soil and erosion. There is, therefore, a need for grazing to be undertaken at the right time and with the right intensity. The reporting of measures taken to address unfavourable condition indicates that management agreements/schemes and agri-environment schemes are in place on many sites. However, it is not yet known how long it may take to return upland calcareous grassland features to favourable condition.

Calcareous grasslands - lowland

Context

Lowland calcareous grassland is characterised by vegetation dominated by grasses and herbs on shallow, well-drained soils which are rich in bases (principally calcium carbonate) formed by the weathering of chalk and other types of limestone or base-rich rock. Although the base status of such soils is usually high, with a pH of above 6, it may also be more moderate and calcareous grassland communities can occur on soils with a pH as low as 5. Lowland is defined as below the level of agricultural enclosure. The altitude at which this occurs varies across the UK, typically becoming higher as one travels South.

Lowland calcareous grasslands support a very rich flora including many nationally rare and scarce species such as monkey orchid *Orchis simia*, hoary rockrose *Helianthemum canum* and pasque flower *Pulsatilla vulgaris*. The invertebrate fauna is also diverse and includes scarce species like the adonis blue *Lysandra bellargus*, the silver-spotted skipper *Hesperia comma*, the Duke of Burgundy fritillary *Hamaeris lucina* and the wart-biter cricket *Decticus verrucivorus*.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 3 Lowland grasslands* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

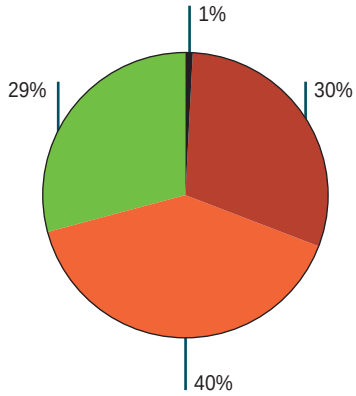
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	27%	29%	29%
Main monitoring coverage	E, W	E, S	
Reported assessments	48	577	625
Completeness of assessments	94%	unknown	
Distribution of features			GB

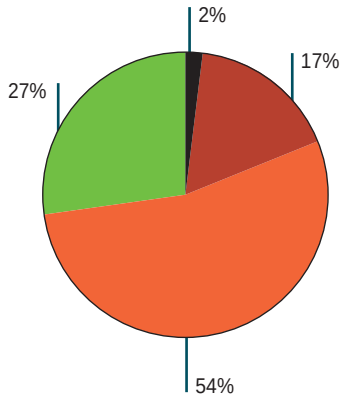
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	44	549
Scotland	0	28
Wales	4	0
Northern Ireland	0	0
United Kingdom	**48**	**577**

Condition assessment - SSSI features



Condition assessment - Natura 2000

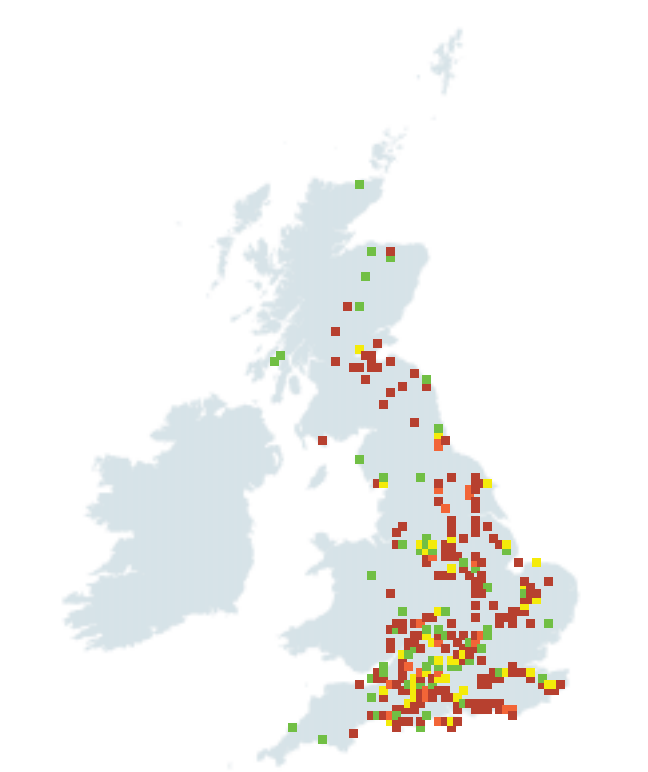


Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

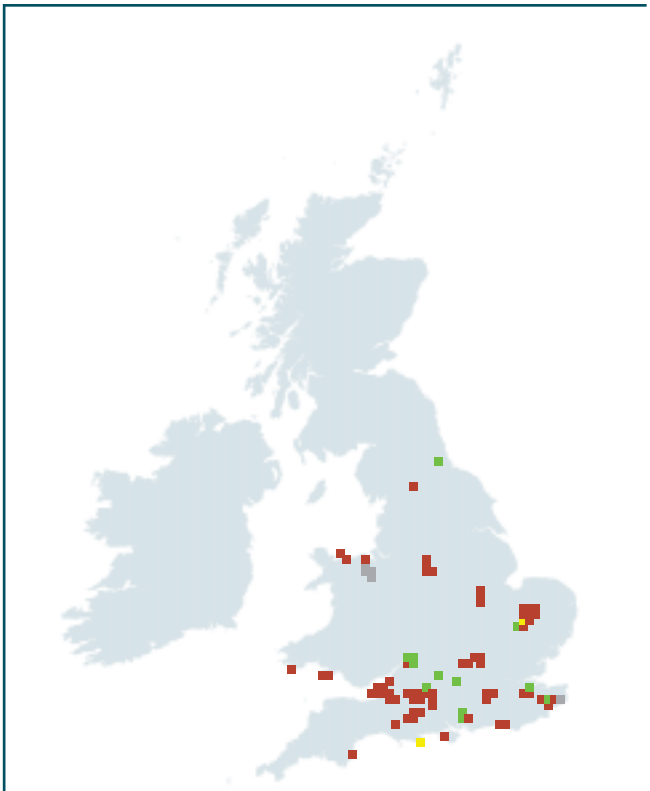
Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

SSSIs



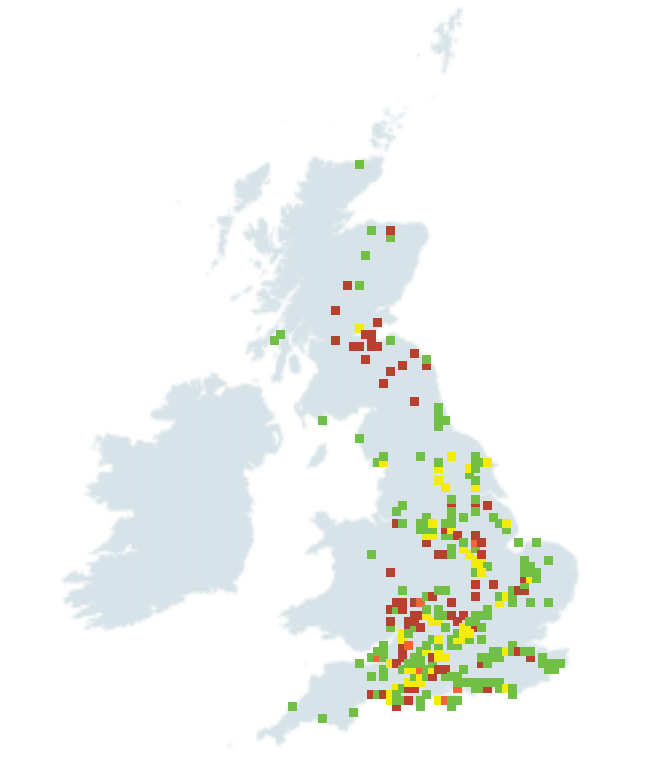
Current condition of SSSI/ASSI features

Natura 2000

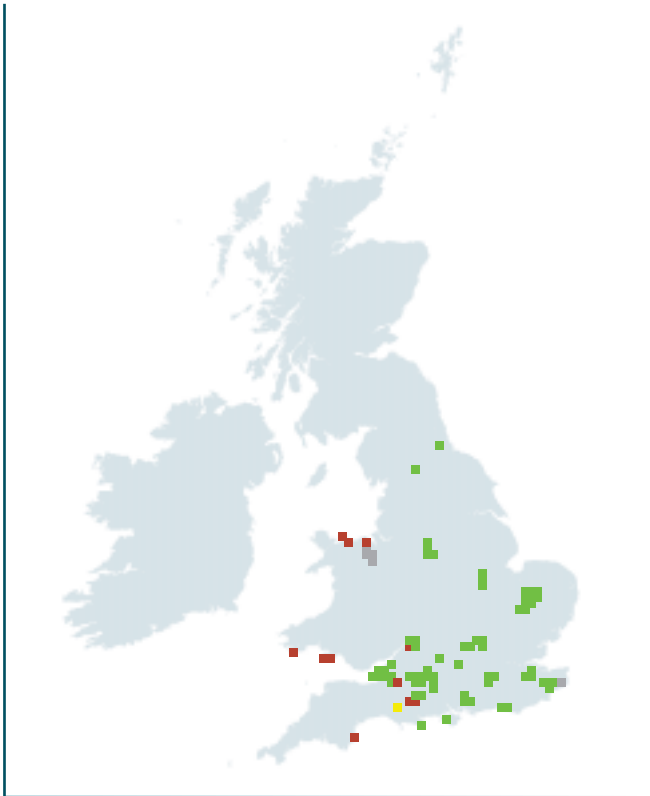


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

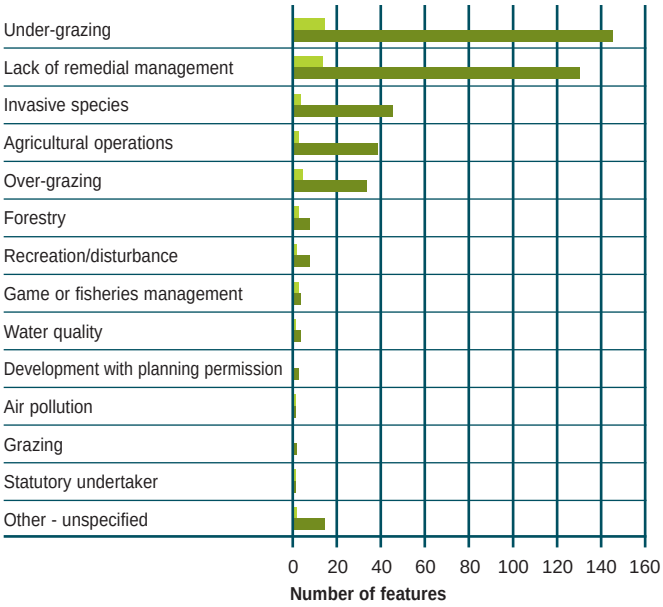
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20% Not assessed (Natura 2000 only)

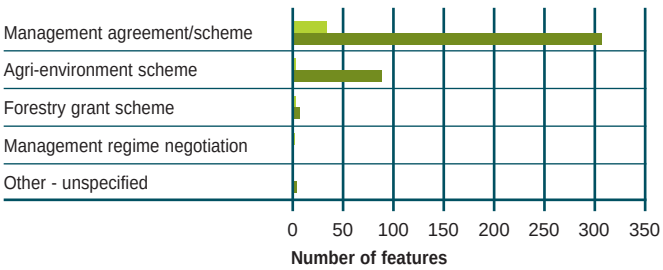
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

29% of lowland calcareous grassland features reported are in favourable condition. This is below the average for terrestrial habitats and well below the average for all habitats or all features combined. 29% of SSSI, and 27% of SAC features reported are in favourable condition.

Although the poor condition of these features is obviously worrying, many sites have management in place to promote a return to favourable condition. Thus the unfavourable-recovering category accounts for a significant proportion of assessments reported (40% of A/SSSIs and 54% of SACs).

Under-grazing and abandonment are the main causes of unfavourable condition, commonly resulting in scrub encroachment, sometimes together with invasive species problems. Additionally, some sites are affected by over-grazing and nutrient-enrichment. Underlying causes of under-management are still thought to be largely due to current agricultural economics and policies. Nutrient-enrichment through fertilizer application is still a concern, but is very difficult to monitor. In addition, the extent to which atmospheric nutrient deposition is affecting the composition of grassland sites is a largely unknown quantity.

Heathlands - upland

Context

Upland heathlands are characterised by vegetation that has a greater than 25% cover of plant species from the heath family (ericoids). It generally occurs on well-drained, nutrient-poor, acid soils. Heaths do occur on more basic soils but these are more limited in extent and can be recognised by the presence of herbs characteristic of calcareous grassland. Dwarf shrub heath includes both dry and wet heath types. Upland is defined as above the level of agricultural enclosure. The altitude at which this occurs varies across the UK, typically becoming lower as one travels North.

This habitat type does not include dwarf shrub dominated vegetation in which species characteristic of peat-forming vegetation, such as cottongrass *Eriophorum* spp. and peat-building *Sphagnum* spp. are abundant, or that occurs on deep peat (greater than 0.5 m), as these are included in the *Bog* reporting category. It also does not include heath types which are exclusively alpine in distribution, as these are included in the *Montane grasslands and heaths* reporting category.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 9 Upland habitats* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

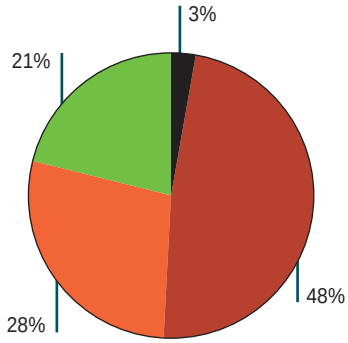
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	19%	21%	21%
Main monitoring coverage	E, S, W	E, S	
Reported assessments	68	127	195
Completeness of assessments	60%	unknown	
Distribution of features			UK

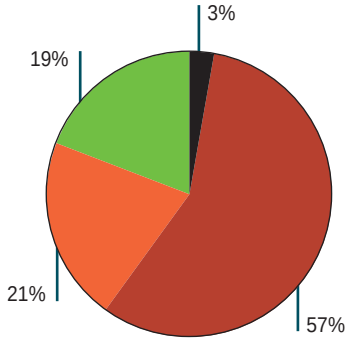
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	24	87
Scotland	33	34
Wales	7	0
Northern Ireland	4	6
United Kingdom	**68**	**127**

Condition assessment - SSSI features



Condition assessment - Natura 2000



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

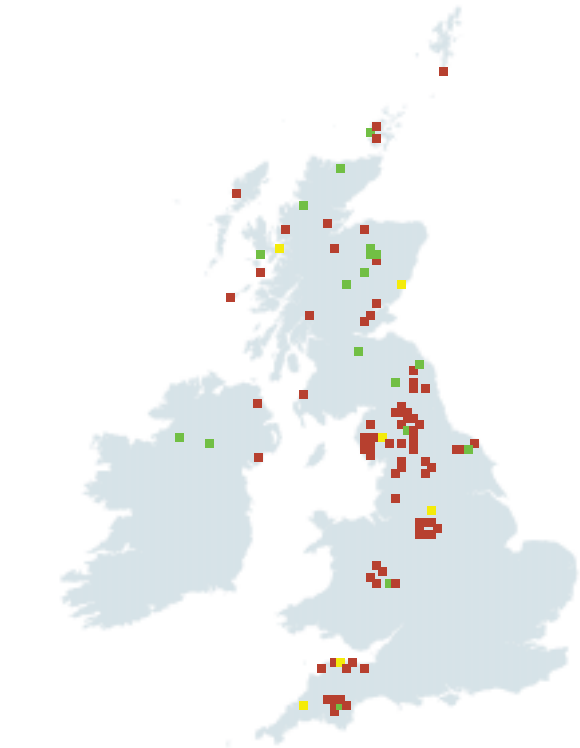
Favourable

Unfavourable-recovering

Unfavourable

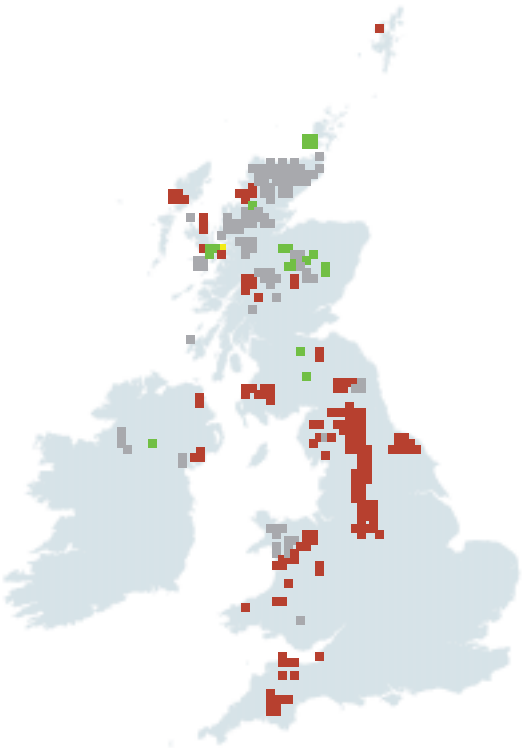
Destroyed (whole or part)

SSSIs



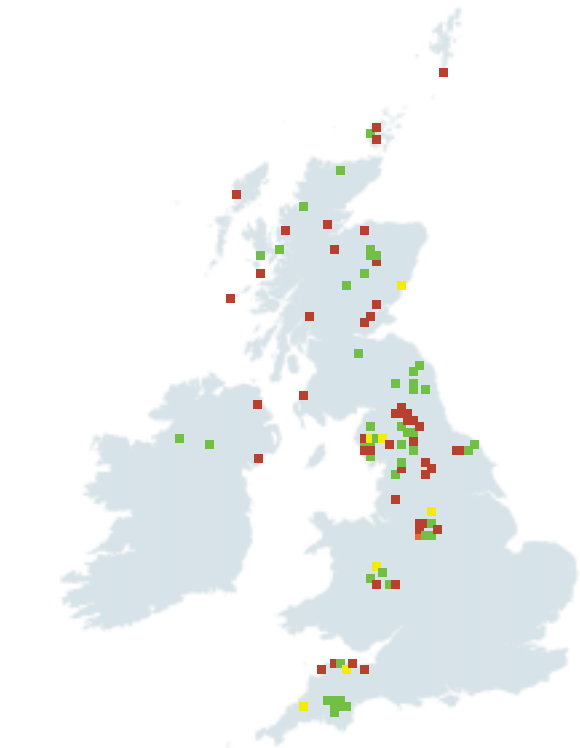
Current condition of SSSI/ASSI features

Natura 2000

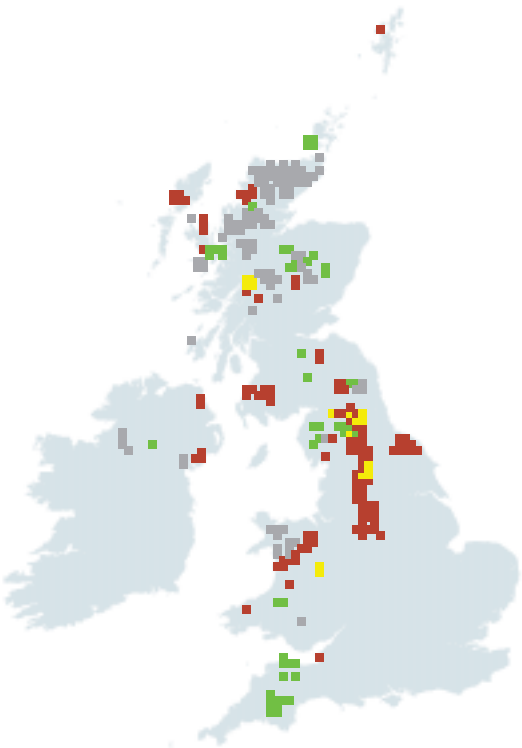


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

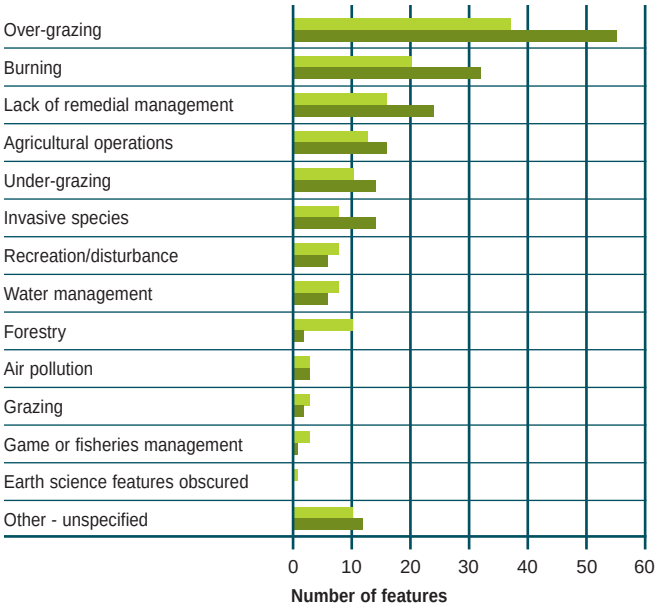
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% | 50-80% | 20-50% | 0-20% | Not assessed (Natura 2000 only)

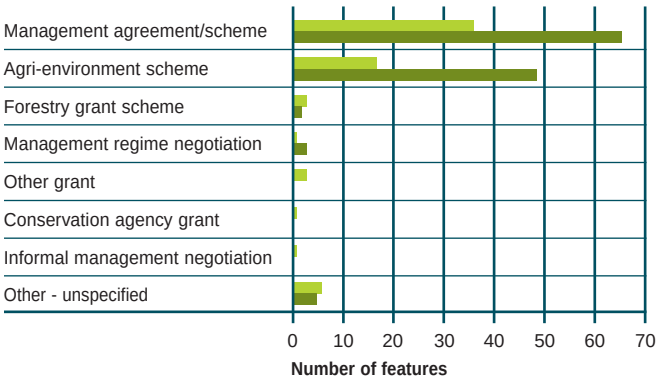
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

21% of upland heathland features reported are in favourable condition. Heathlands are the habitat category in worst condition, and this result is well below the average for terrestrial habitats, all habitats and all features combined. 21% of the A/SSSI upland dwarf shrub heath features and 19% of SAC features reported are in favourable condition. A further 28% of A/SSSI and 21% of SAC features reported are unfavourable-recovering.

The reported activity that has had the greatest impact contributing to unfavourable condition on upland heath features is over-grazing, followed by burning. This leads to loss of vegetation structure and the failure of more palatable or vulnerable species to reproduce and maintain themselves. It can also lead to the loss of plant species and associated fauna, and the spread of rank, unpalatable plant species. In extreme cases, very heavy grazing and trampling can lead to exposure of bare soil and erosion. There is, therefore, a need for grazing and burning to be undertaken at the right time and with the right intensity. The reporting of measures taken to address unfavourable condition indicates that management agreements/schemes and agri-environment schemes are in place on many sites. However, it is not yet known how long it may take to return upland heath features to favourable condition.

Heathlands - lowland

Context

Lowland heathlands are characterised by vegetation that has a greater than 25% cover of plant species from the heath family (ericoids). In the lowlands the habitat also typically includes dwarf gorse *Ulex minor* or western gorse *U. gallii*. It generally occurs on well-drained, nutrient-poor, acid soils. Heaths do occur on more basic soils but these are more limited in extent and can be recognised by the presence of herbs characteristic of calcareous grassland. Dwarf shrub heath includes both dry and wet heath types. Lowland is defined as below the level of agricultural enclosure. The altitude at which this occurs varies across the UK, typically becoming higher as one travels South.

This habitat type does not include dwarf shrub dominated vegetation in which species characteristic of peat-forming vegetation, such as cottongrass *Eriophorum* spp. and peat-building *Sphagnum* species are abundant, or that occurs on deep peat (greater than 0.5 m), as these are included in the *Bog* reporting category. Heath types on sand dunes or shingle are included in the *Dunes, shingle and machair* reporting category and heath types on maritime cliffs and slopes that are influenced by salt spray are included in the *Sea cliffs* reporting category.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 4 Lowland heathland* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - *the Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

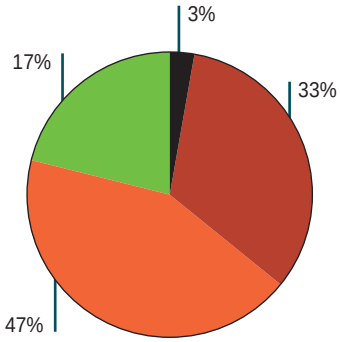
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	21%	17%	18%
Main monitoring coverage	E, S, W	E, S	
Reported assessments	75	299	374
Completeness of assessments	88%	unknown	
Distribution of features			UK

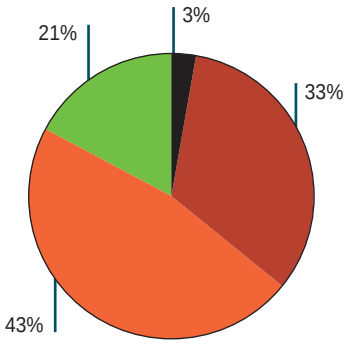
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	52	276
Scotland	10	20
Wales	13	0
Northern Ireland	0	3
United Kingdom	**75**	**299**

Condition assessment - SSSI features



Condition assessment - Natura 2000

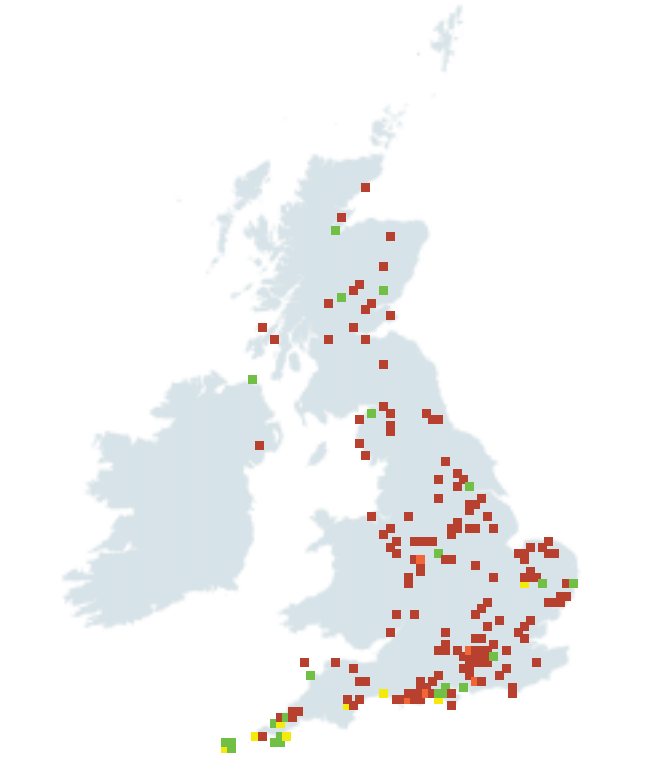


Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

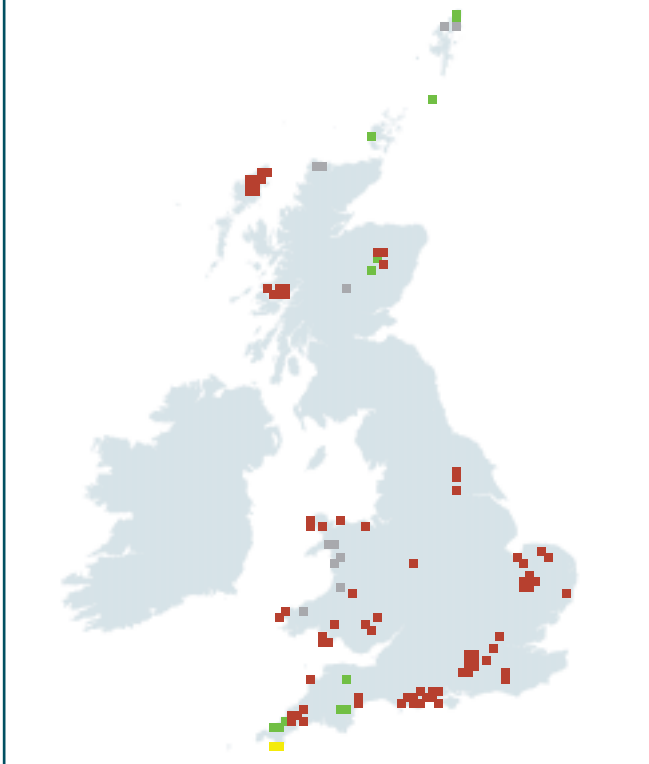
Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

SSSIs



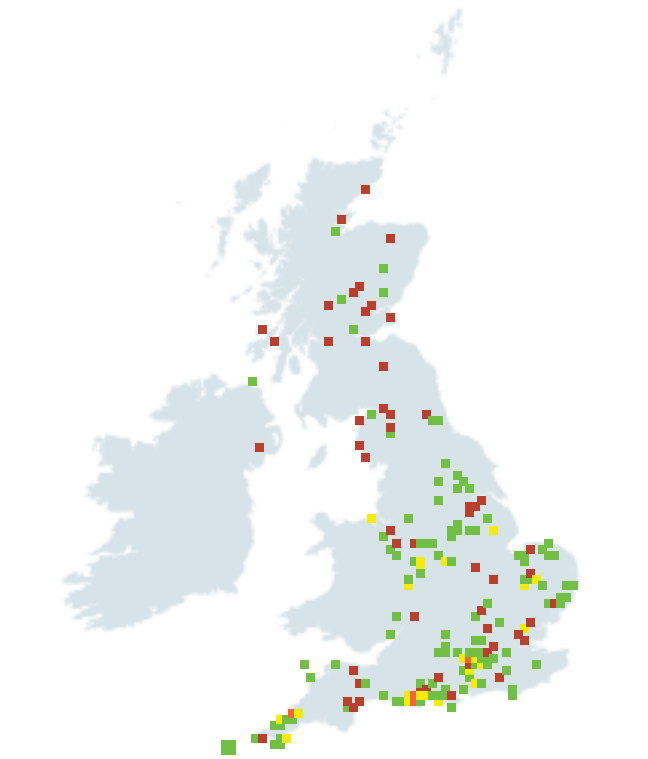
Current condition of SSSI/ASSI features

Natura 2000

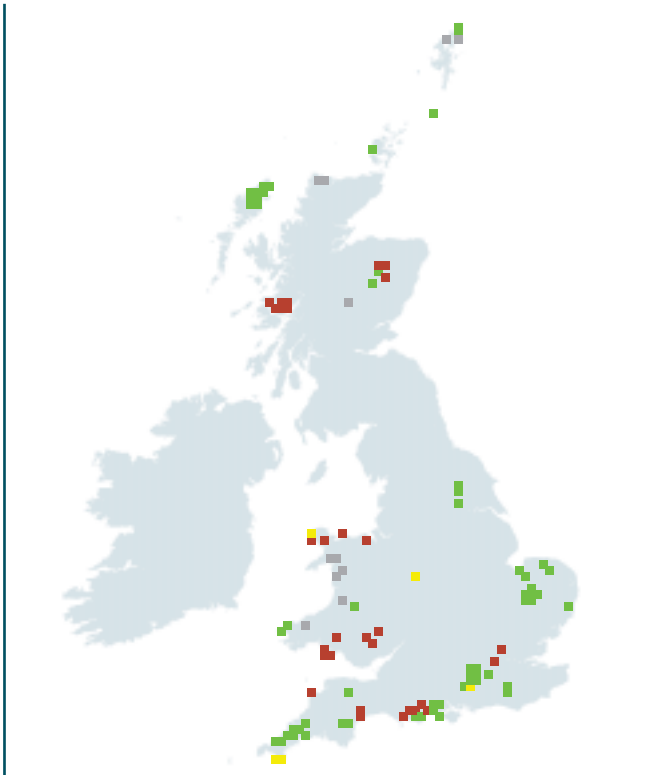


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

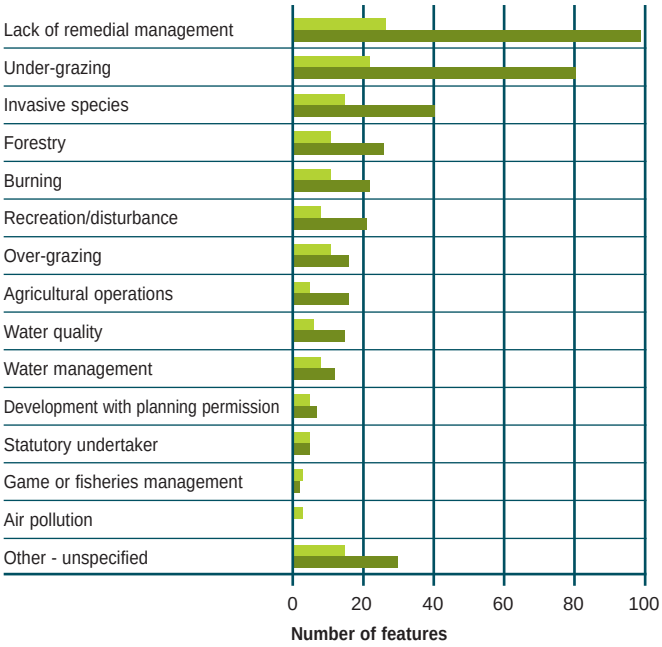
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% | 50-80% | 20-50% | 0-20% | Not assessed (Natura 2000 only)

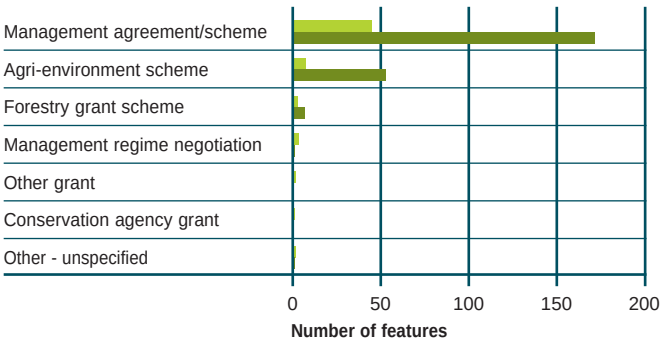
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

Overall, 18% of lowland heathland features reported are in favourable condition. Heathlands are the habitat category in worst condition, and this result is well below the average for terrestrial habitats, all habitats and all features combined. 17% of A/SSSI and 21% of SAC features reported are in favourable condition.

This is a habitat type which has received major funding in the past decade - the effects of that funding are shown in the number of features reported in unfavourable-recovering condition (47% of A/SSSI features and 43% of SAC features reported). Nevertheless, actual recovery to favourable condition will require further effort over a considerable period.

The patterns of adverse activities are similar in both A/SSSIs and SAC sites. Lowland heathlands still lack appropriate management (including grazing and control or eradication of invasive species) in many sites. These problems lead to scrub and bracken encroachment, both of which require much work to bring under control. Water quality and management are cited as problems in wet heaths; these factors typically affect the nutrient status of heathland habitats, allowing more rank vegetation to invade. Management agreements with owners or occupiers are the most common way of trying to bring sites into favourable condition. This situation may change from now on, with agri-environment schemes having a larger role to play.

There are significant differences by country in the results. In Northern Ireland there are only three features, reflecting the relatively small amount of this feature type in the Province. Two are in favourable condition. The other site is in unfavourable condition due to under-grazing as a result of difficult access. In England and Scotland two thirds or more of the monitored features (both SSSI and SAC) are in unfavourable condition. All lowland heathland SACs reported in Wales are in unfavourable condition.

Coniferous woodlands

Context

Scots pine *Pinus sylvestris* is the only native coniferous tree that in the UK that forms significant stands. Juniper *Juniperus communis* is typically a scrub species, and yew *Taxus baccata* is usually present only in small groves, with very few exceptions e.g. Kingley Vale. Native pinewoods occur in Scotland on infertile, strongly leached, podsolic soils. They do not support a large diversity of plants and animals compared with some more fertile habitats. However, there is a characteristic plant and animal community which includes many rare and uncommon species. The main tree species is Scots pine although birches *Betula* spp., rowan *Sorbus aucuparia*, alder *Alnus glutinosa*, willows *Salix* spp., and bird cherry *Prunus padus* are also found. A shrub understorey, where browsing levels are low, includes common juniper, aspen *Populus tremula*, holly *Ilex aquifolium* and hazel *Corylus avellana*. Old or dead trees and rotting wood support significant beetle and bryophyte communities. The field layer is characterised by acid-tolerant plants like bell heather *Erica cinerea*, blaeberry *Vaccinium myrtillus* and crowberry *Empetrum nigrum*. Bog woodlands of pine on bog are confined to Scotland.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 2 Woodlands* of the *Guidelines for Selection of Biological SSSIs*.

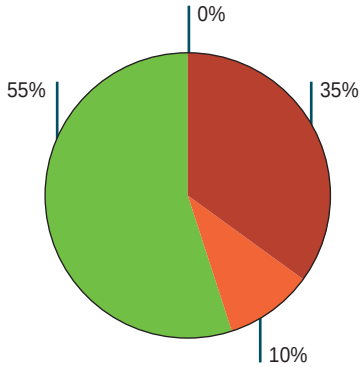
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	38%	55%	50%
Main monitoring coverage	S	S	
Reported assessments	16	40	56
Completeness of assessments	84%	unknown	
Distribution of features			S

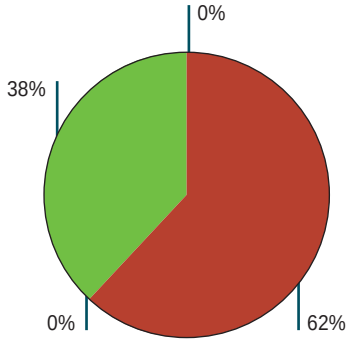
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	0	0
Scotland	16	40
Wales	0	0
Northern Ireland	0	0
United Kingdom	**16**	**40**

Condition assessment - SSSI features



Condition assessment - Natura 2000



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

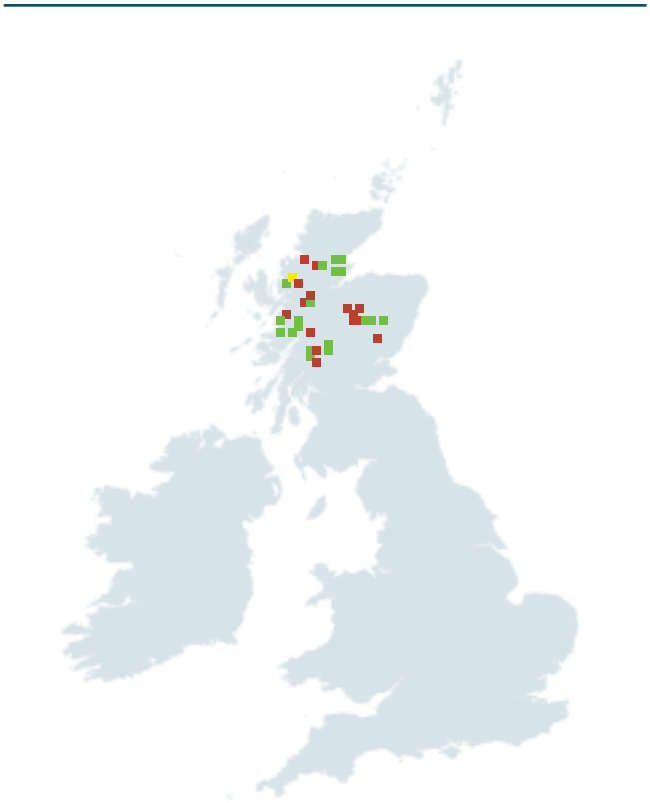
Favourable

Unfavourable-recovering

Unfavourable

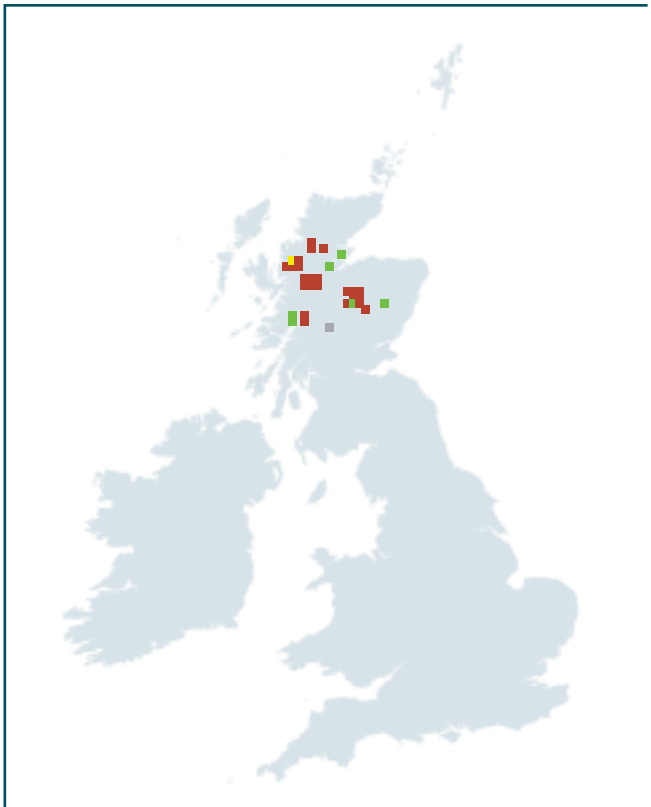
Destroyed (whole or part)

SSSIs



Current condition of SSSI/ASSI features

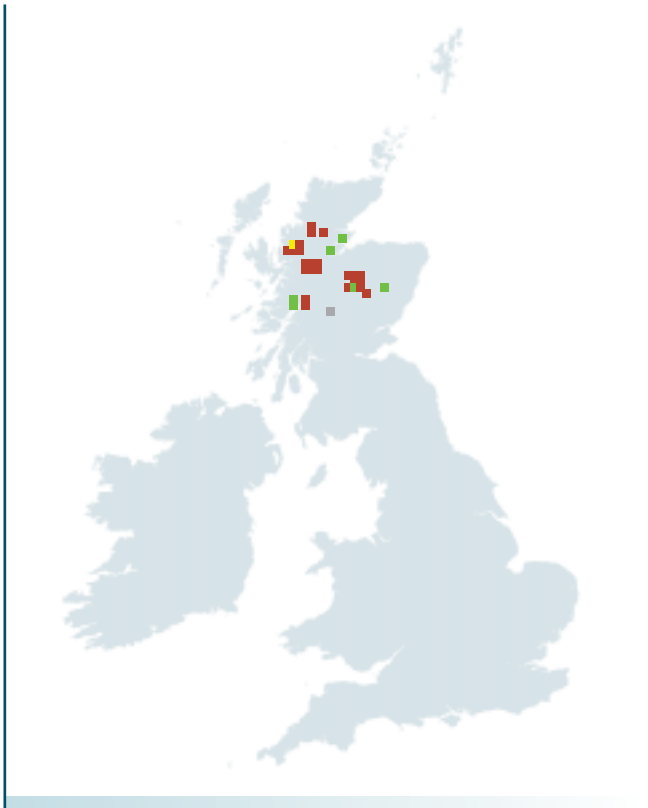
Natura 2000



Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).

Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

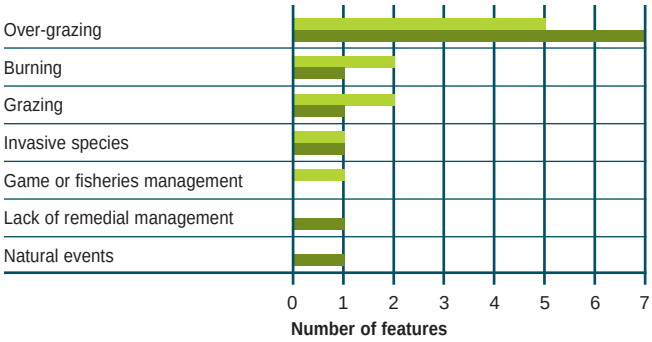
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% | 50-80% | 20-50% | 0-20% | Not assessed (Natura 2000 only)

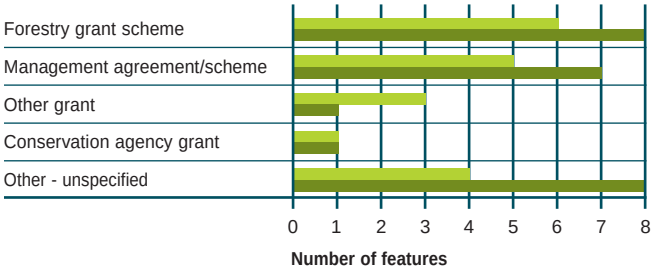
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

Assessments for coniferous woodland features have only been undertaken in Scotland. Coniferous woodland, including 'native pinewood' and 'bog woodland', occurs in a matrix with other woodland types. The assessments reported are split 50:50 in favourable and unfavourable condition. This is above the average for terrestrial features and all habitat features, but below the average for all features combined. 55% of A/SSSI and 38% of SAC features reported are in favourable condition. A further 10% of A/SSSI features reported are unfavourable-recovering.

There were no obvious differences in the underlying issues and pressures affecting feature condition in coniferous woodlands to broadleaved woodlands. Over-grazing is the most frequently reported activity linked with unfavourable condition. Not only are native pinewoods generally over-grazed and lacking in regeneration, they have been for long periods; for over a century in some cases. Conservation concerns are, therefore, both the immediate condition and the long term continuity of the woodland, especially the presence of mature trees.

Broadleaved and mixed woodlands

Context

Broadleaved and mixed woodland is characterised by vegetation dominated by trees that are more than 5m high when mature, which form a distinct, although sometimes open, canopy with a canopy cover of greater than 20%. It includes stands of both native and non-native broadleaved tree species, and of yew *Taxus baccata*, where the percentage cover of these trees in the stand exceeds 20% of the total tree cover. Stands of broadleaved, mixed and yew woodland may be either ancient or recent woodland and either semi-natural arising from natural regeneration of trees, or planted.

Scrub vegetation, where the woody component tends to be mainly shrubs, which are usually less than 5m high, including juniper *Juniperus communis*, and carr (woody vegetation on fens and bog margins), is included in this reporting category if the woody species form a canopy cover of greater than 30% and the patch size of scrub is greater than 0.25ha. Exceptions to this include dwarf gorse *Ulex minor* and western gorse *U. gallii* which are included in the *Heathlands* reporting category, montane willow scrub which is included in the *Montane grasslands and heaths* reporting category, and scrub on sand dunes and shingle which is included in *Dunes, shingle and machair* reporting category.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 2 Woodlands* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

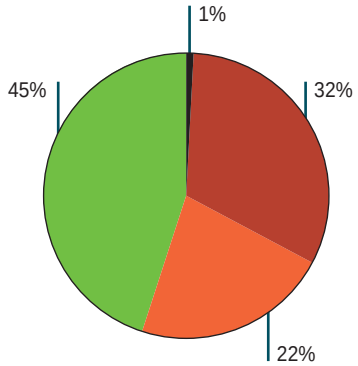
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	25%	45%	43%
Main monitoring coverage	E, S, W, NI	E, S, NI	
Reported assessments	198	1644	1842
Completeness of assessments	87%	unknown	
Distribution of features			UK

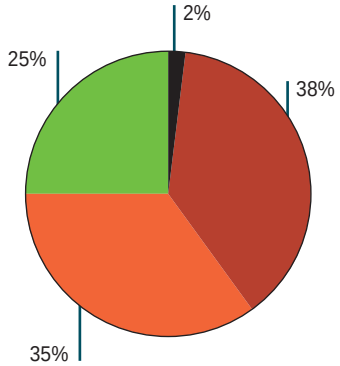
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	99	1279
Scotland	55	334
Wales	33	0
Northern Ireland	11	31
United Kingdom	**198**	**1644**

Condition assessment - SSSI features



Condition assessment - Natura 2000

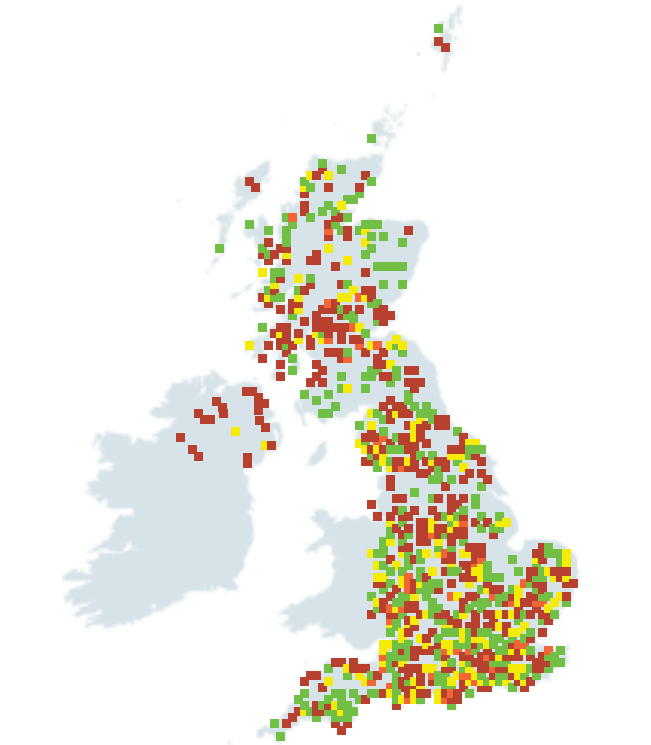


Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

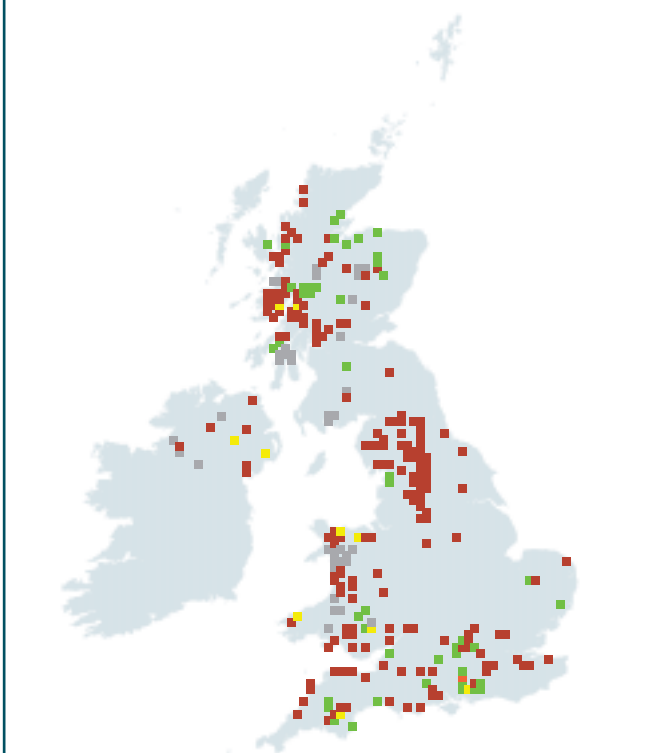
Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

SSSIs



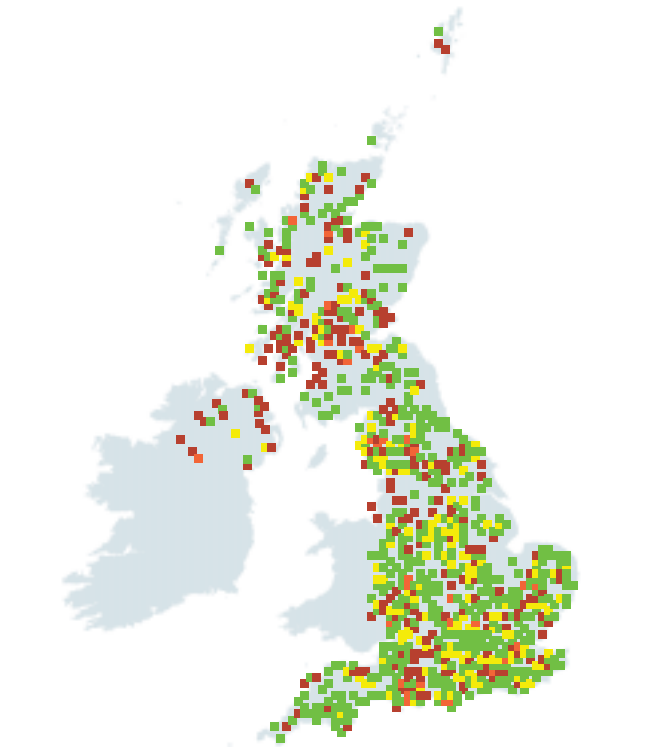
Current condition of SSSI/ASSI features

Natura 2000

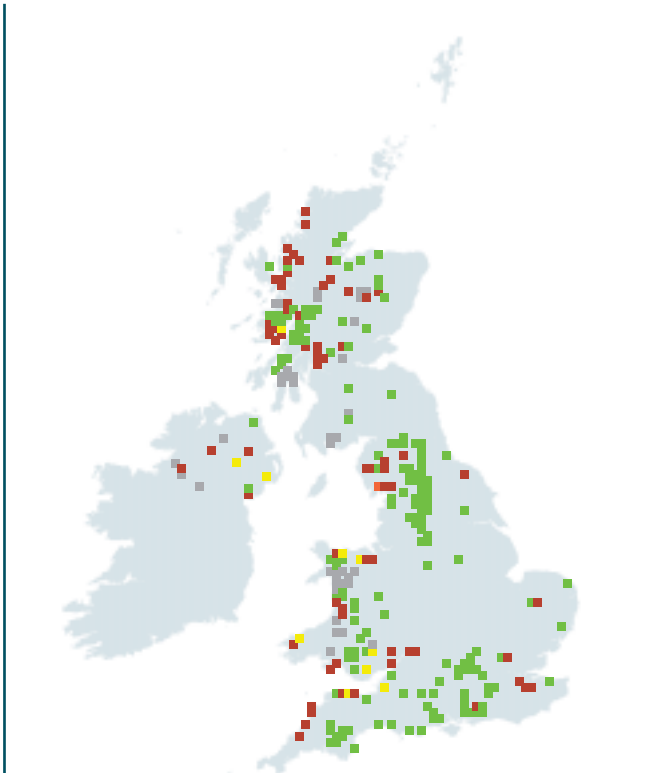


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

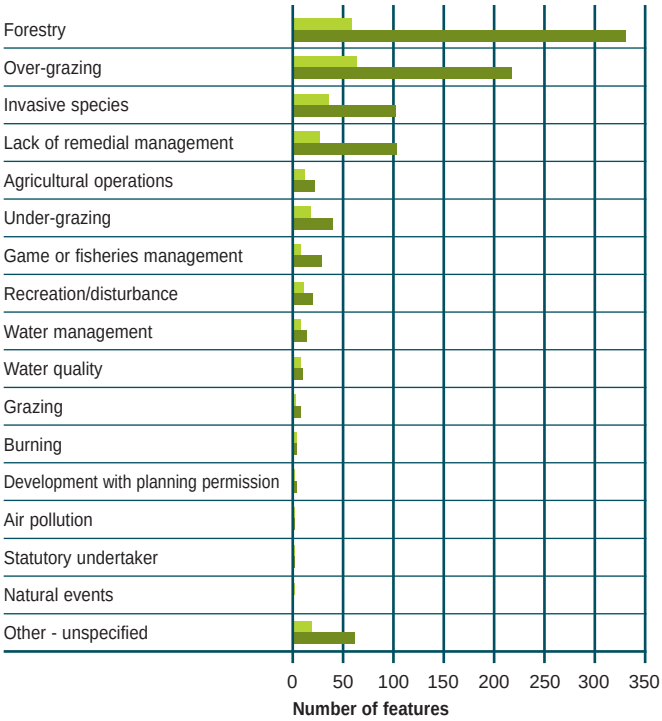
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20% Not assessed (Natura 2000 only)

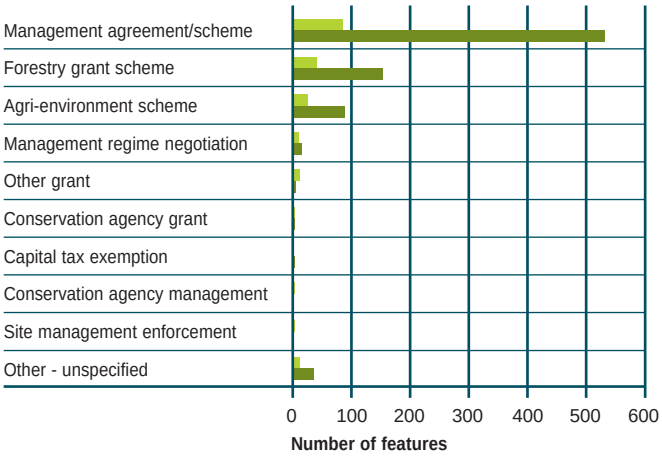
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

43% of broadleaved woodland features reported are in favourable condition. This is above the average for terrestrial habitats, about the average for all habitat features, and below the average for all features combined. 45% of A/SSSI and 25% of SAC features reported are in favourable condition. 22% of A/SSSI and 35% of SAC features reported are unfavourable recovering. Much is being done to improve the condition of woodlands, although it will take a considerable period for many of them to become favourable again.

A small number of sites in England were recorded as partially destroyed. In almost all cases this involves marginal tipping, or the construction of small structures (e.g. electricity sub-stations) on the site and tends to have happened some while ago.

England shows a much higher proportion of features reported in unfavourable-recovering condition compared to unfavourable-declining condition than Scotland. The following may contribute to this difference:

- A genuine reflection of the differences between the large-scale unenclosed landscapes of the uplands and the lowlands: Scotland has more of the former.
- Scottish woods tend to be larger and to be treated less intensively, but at the same time the threats to them may be more inherent in the nature of the whole landscape (for example extensive deer browsing); the smaller English woods may, therefore, be more amenable to management action that will allow the site to move into the unfavourable-recovering category.

Juniper

29% of the A/SSSI and 31% of the SAC juniper *Juniperus communis* features reported are in favourable condition. A further 43% of A/SSSI and 31% of SAC features reported are unfavourable-recovering. These results raise serious concerns that features at more than two-thirds of sites are failing to meet favourable condition.

The reported activity that has had the greatest impact contributing to unfavourable condition on juniper features is over-grazing, though under-grazing is also an important impact, as is forestry. There is still a need to organise better the timing and intensity of grazing. The reporting of measures taken to address unfavourable condition indicates that management agreements/schemes and agri-environment schemes are in place on many sites. However, it is not yet known how long it may take to return juniper features to favourable condition.

Blanket bogs

Context

Bogs are wetlands that support vegetation that is usually peat-forming and which receive mineral nutrients principally from precipitation rather than ground water. This is referred to as ombrotrophic (rain-fed) mire. Two major bog types are identified, namely raised bog and blanket bog. These two types are, for the most part, fairly distinctive, but they are extremes of what can be considered an ecological continuum and intermediate (or mixed) types occur.

The vegetation of bogs which have not been modified by surface drying and aeration or heavy grazing is dominated by acidophilous species, such as bog-mosses *Sphagnum* spp., cottongrass *Eriophorum* spp. and cross-leaved heath *Erica tetralix*. The water-table on these types of bogs is usually at or just below the surface. The bog feature types discussed here are mainly found in upland areas though blanket bog types do occur in some lowland areas. The Natura 2000 feature 'depressions on peat substrates (*Rhynchosporion*)' is included here where it occurs as blanket bog.

SSSIs can be notified if they qualify under criteria outlined in Section 5 of *Chapter 8 Bogs* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

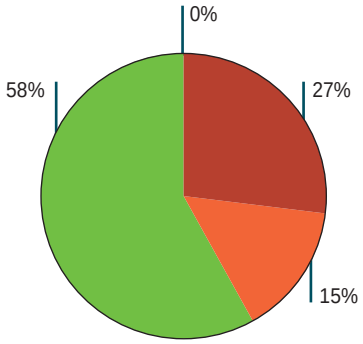
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	45%	58%	54%
Main monitoring coverage	E, S, NI	E, S, NI	
Reported assessments	66	156	222
Completeness of assessments	65%	unknown	
Distribution of features			UK

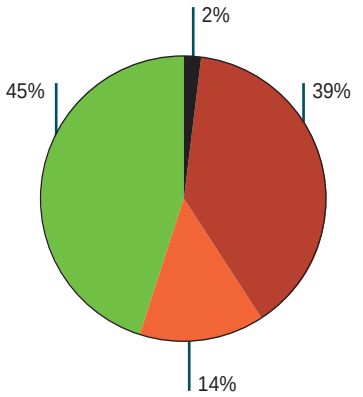
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	10	56
Scotland	47	93
Wales	4	0
Northern Ireland	5	7
United Kingdom	**66**	**156**

Condition assessment - SSSI features



Condition assessment - Natura 2000



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

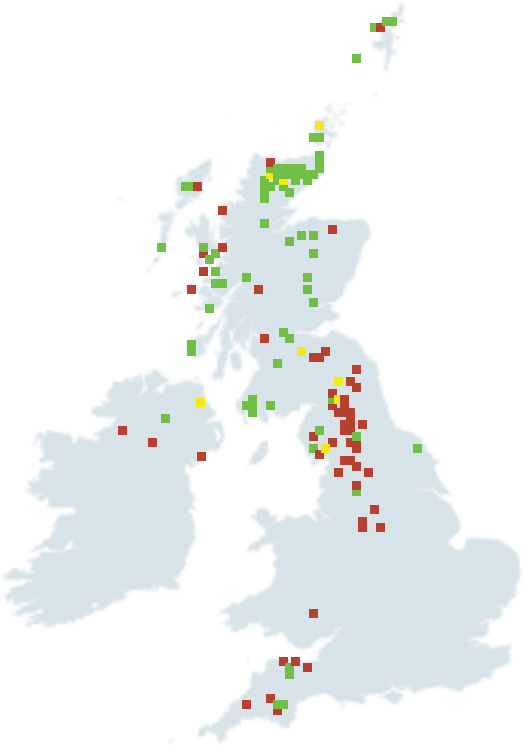
Favourable

Unfavourable-recovering

Unfavourable

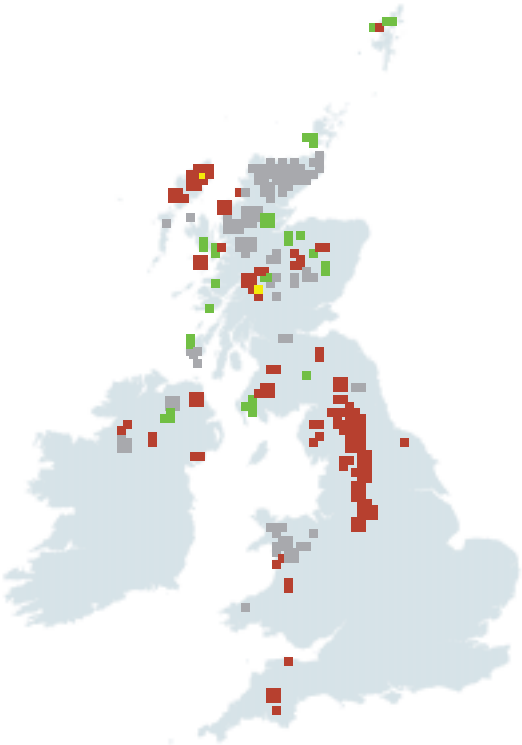
Destroyed (whole or part)

SSSIs



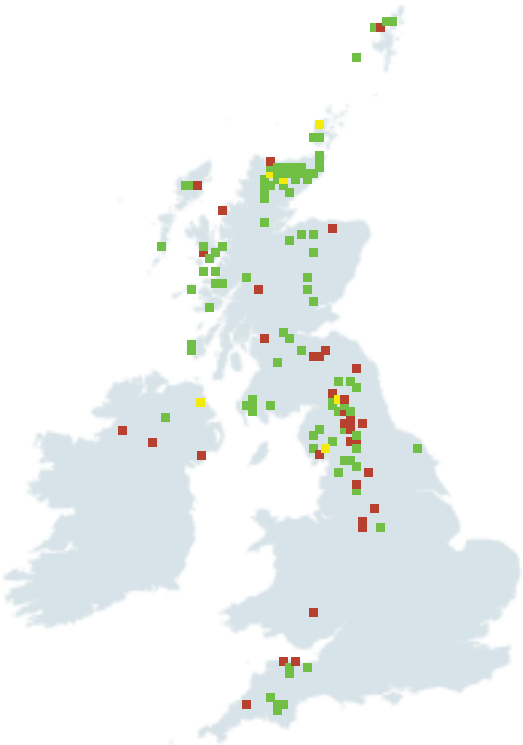
Current condition of SSSI/ASSI features

Natura 2000

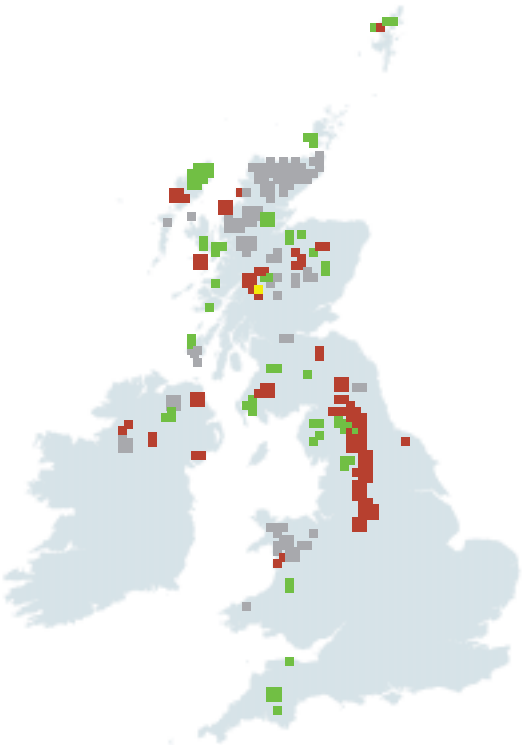


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

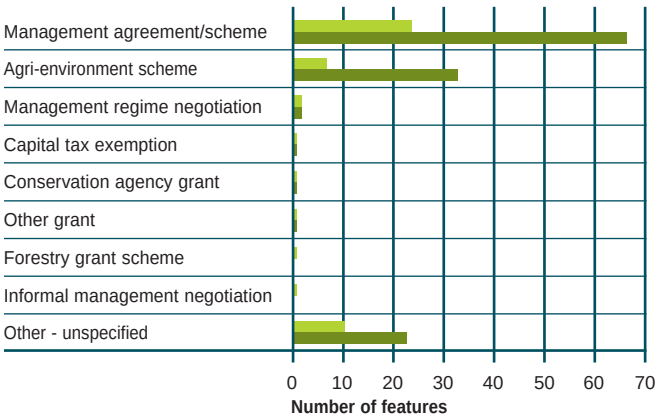
80-100% | 50-80% | 20-50% | 0-20% | Not assessed (Natura 2000 only)

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities

The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

54% of blanket bog features reported are in favourable condition. This is just below the average for all features combined, and above the averages for terrestrial habitats and all habitats. 58% of the A/SSSI features and 45% of SAC features reported are in favourable condition. 15% of A/SSSI and 14% of SAC features reported are unfavourable-recovering.

The reported activities that have had the greatest impact contributing to unfavourable condition on blanket bog features are over-grazing, and burning, and, to a slightly lesser degree, water (hydrology) management, and a lack of conservation management being in place. Over-grazing leads to loss of vegetation structure and the failure of more palatable or vulnerable species to reproduce and maintain themselves. It can also lead to the loss of plant species and associated fauna, and the spread of rank, unpalatable plant species. In extreme cases, very heavy grazing and trampling can lead to exposure of bare peat and erosion. There is, therefore, a need for grazing to be undertaken at the right time and with the right intensity. There is also a need for correct burning practices and to reinstate natural hydrology by blocking grips (lines cut through moorland for drainage purposes). The problem of gripping on blanket bogs is a major cause of unfavourable condition that has not yet been fully reported on, particularly in England. It is also possible that, although not identified as an 'activity', trampling damage is very often associated with over-grazing and can make recovery times longer. The reporting of measures taken to address unfavourable condition indicates that management agreements/schemes and agri-environment schemes are in place on many sites. However, it is not yet known how long it may take to return blanket bog features to favourable condition.

Lowland raised bogs

Context

Bogs are wetlands that support vegetation that is usually peat-forming and which receive mineral nutrients principally from precipitation rather than ground water. This is referred to as ombrotrophic (rain-fed) mire. Two major bog types are identified, namely raised bog and blanket bog. These two types, are for the most part, fairly distinctive, but they are extremes of what can be considered an ecological continuum and intermediate (or mixed) types occur.

The vegetation of bogs which have not been modified by surface drying and aeration or heavy grazing is dominated by acidophilous species, such as bog-mosses *Sphagnum* spp., cottongrass *Eriophorum* spp. and cross-leaved heath *Erica tetralix*. The water-table on these types of bogs is usually at or just below the surface.

Raised bogs are elevated deposits of peat in the lowlands. They are divided into active bogs, in which the peat is still being added to, and degraded bogs in which peat formation is at least temporarily at a standstill. The difference is reflected in the Natura 2000 features: 'active raised bog' and 'degraded bog still capable of natural regeneration'. The Natura 2000 feature 'depressions in peat substrates (*Rhynchosporion*)' may also be found on lowland raised bog.

In lowland areas with predominantly acid substrata there are examples of valley and basin mires that receive acid surface seepage, which gives rise to vegetation similar to that of bogs. However, these types are covered in the *Fens and marshes* reporting categories.

SSSIs can be notified if they qualify under criteria outlined in Section 4 of *Chapter 8 Bogs* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

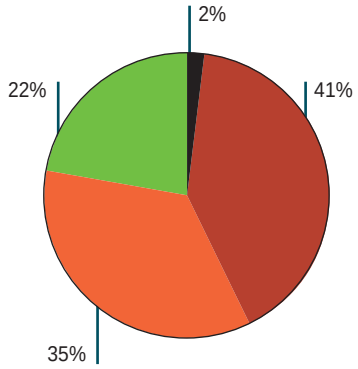
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	19%	22%	21%
Main monitoring coverage	E, S, W, NI	E, S, NI	
Reported assessments	79	120	199
Completeness of assessments	81%	unknown	
Distribution of features			UK

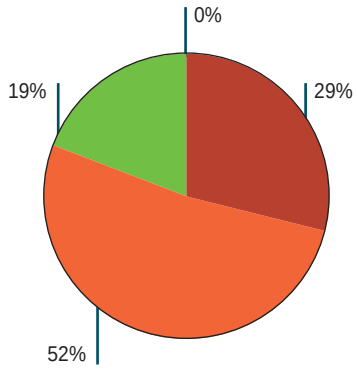
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	17	38
Scotland	41	63
Wales	9	0
Northern Ireland	12	19
United Kingdom	**79**	**120**

Condition assessment - SSSI features



Condition assessment - Natura 2000

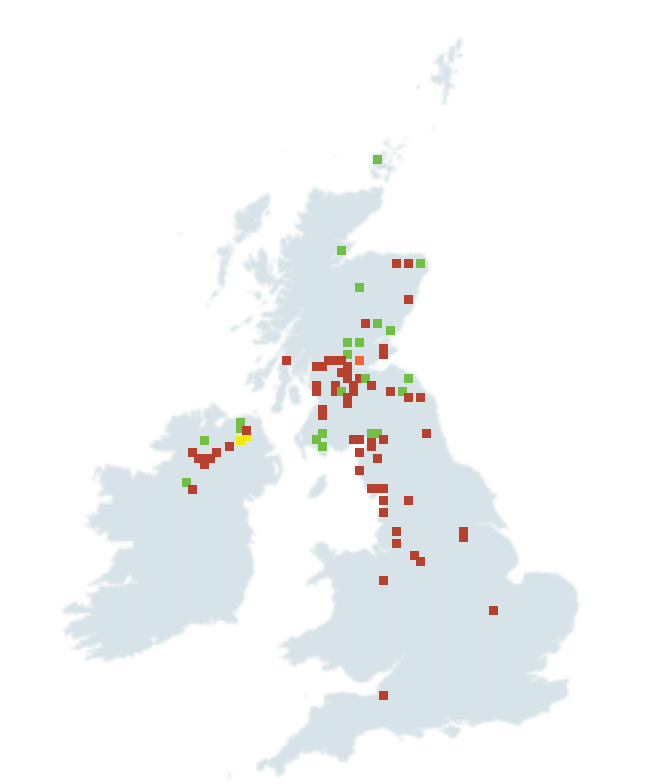


Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

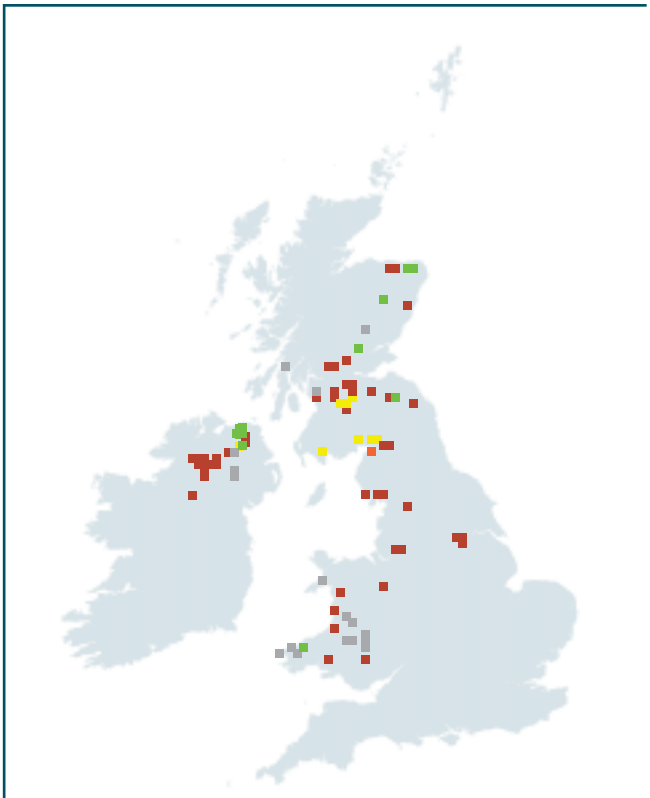
Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

SSSIs



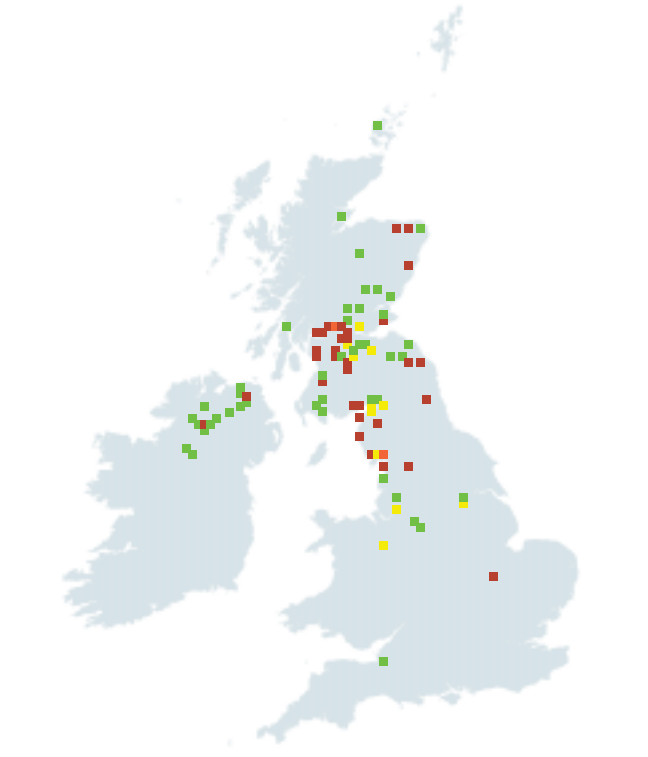
Current condition of SSSI/ASSI features

Natura 2000

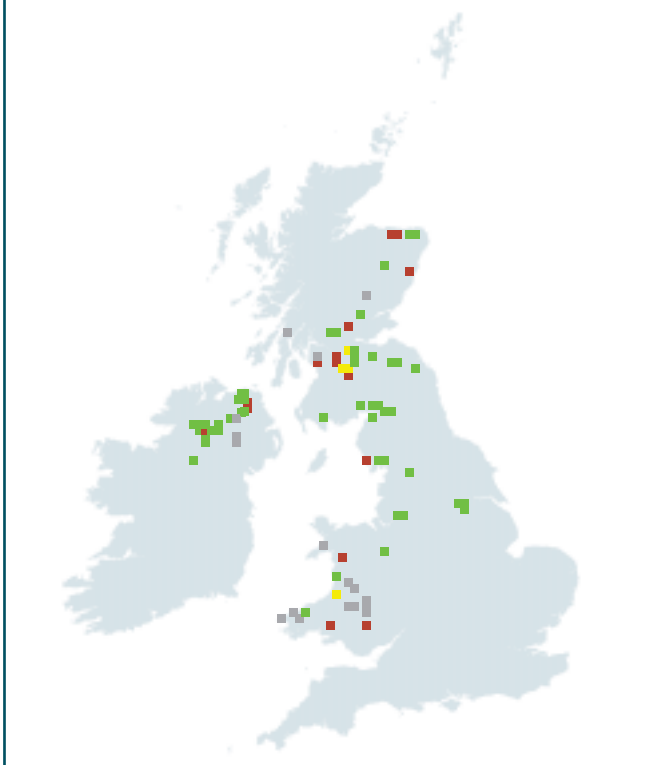


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

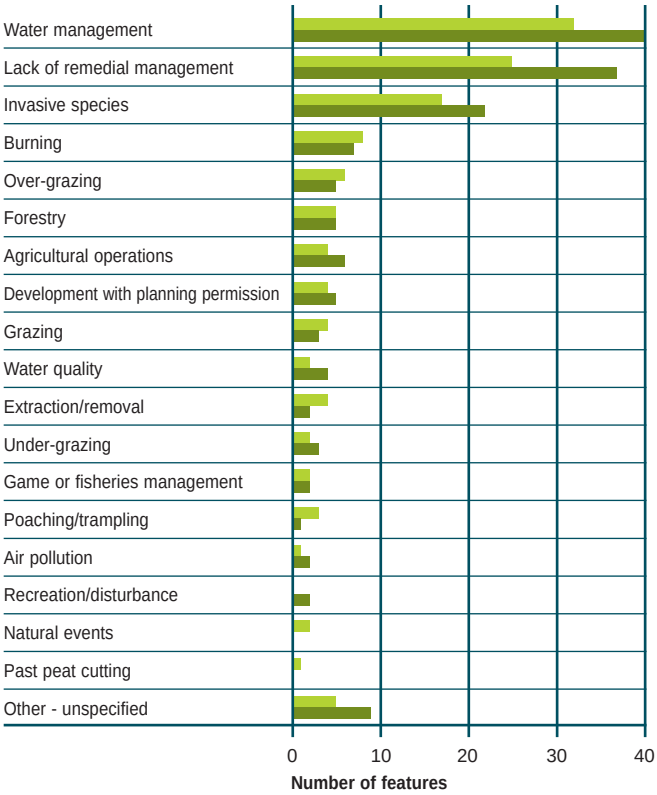
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20% Not assessed (Natura 2000 only)

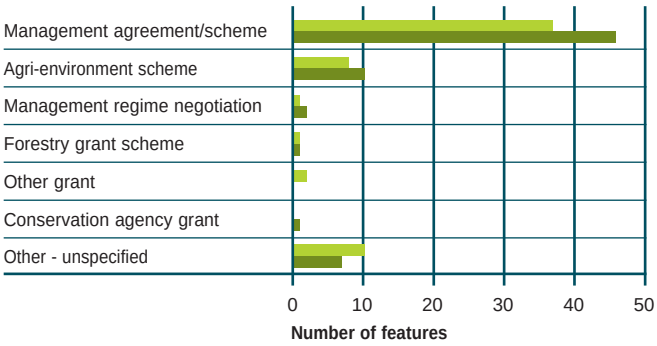
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

Only a fifth (21%) of lowland raised bogs reported are in favourable condition. This is well below the average for terrestrial habitats, all habitats, or all features combined. The proportion of features on A/SSSIs and SAC sites reported in favourable condition is similar, with 22% and 19% respectively. More of the unfavourable SAC features reported are recovering (52%) than on A/SSSIs (35%). This no doubt reflects the additional resources aimed at achieving favourable condition on Natura 2000 sites. No lowland raised bogs in England are in favourable condition, but 44% are unfavourable-recovering.

The main causes of unfavourable condition are water management (presumably, drainage) and lack of remedial management (neglect). It is important to recognise that water management (drainage) affects bog condition when carried out within the designated site and around its borders within a marginal area known as the hydrological protection zone. Other important causes include invasive species (e.g. birch *Betula* spp.) and under-grazing. Development carried out under planning permission may have been under-recorded, as it should include commercial peat extraction. It may be that the activity is split between this category and extraction/removal. Peat extraction is still a cause of unfavourable condition on about 750 ha of lowland bog in England; most of this is on two pSAC sites.

Air pollution is only cited in a few cases. This is likely to be an under-estimate, as most surveyors would attribute the effects of it to other causes, such as drainage. Critical loads of sulphur are still being exceeded for some lowland raised bogs, and are predicted to do so at least to 2010. Dry deposition of ammonia is still very high in most parts of England, Wales and Northern Ireland. Bisulphite has an inhibitory effect on some *Sphagnum* moss species, and deposition of nitrogen encourages rank competitors such as the purple moor-grass *Molinia caerulea*.

Fens and marshes - upland

Context

Fens and marshes are characterised by a variety of vegetation types that are found on groundwater-fed (minerotrophic), peat, peaty soils, or mineral soils. These may be permanently, seasonally or periodically waterlogged. Fens are peatlands which receive water and nutrients from groundwater and surface run-off, as well as from rainfall. Flushes are associated with lateral water movement, and springs with localised upwelling of water. Marsh is a general term usually used to imply waterlogged soil; it is used more specifically here to refer to fen meadows and rush-pasture communities on mineral soils and shallow peats. Swamps are characterised by tall emergent vegetation. Reedbeds (i.e. swamps dominated by stands of common reed *Phragmites australis*) are also included in this type. Upland is defined as above the level of agricultural enclosure. The altitude at which this occurs varies across the UK, typically becoming lower as one travels North.

SSSIs can be notified if they qualify under criteria outlined in *Chapter 7 Fens* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

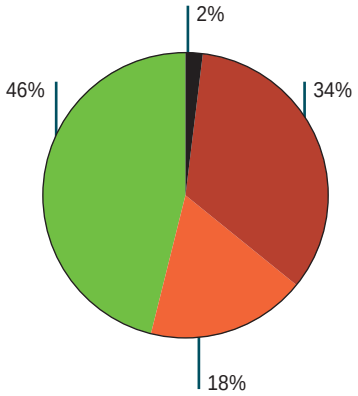
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	45%	46%	46%
Main monitoring coverage	E, S, W, NI	E, S, NI	
Reported assessments	58	56	114
Completeness of assessments	74%	unknown	
Distribution of features			UK

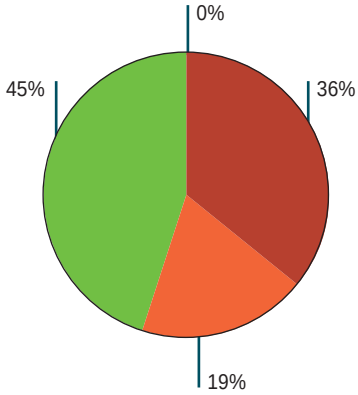
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	23	37
Scotland	31	18
Wales	2	0
Northern Ireland	2	1
United Kingdom	**58**	**56**

Condition assessment - SSSI features



Condition assessment - Natura 2000

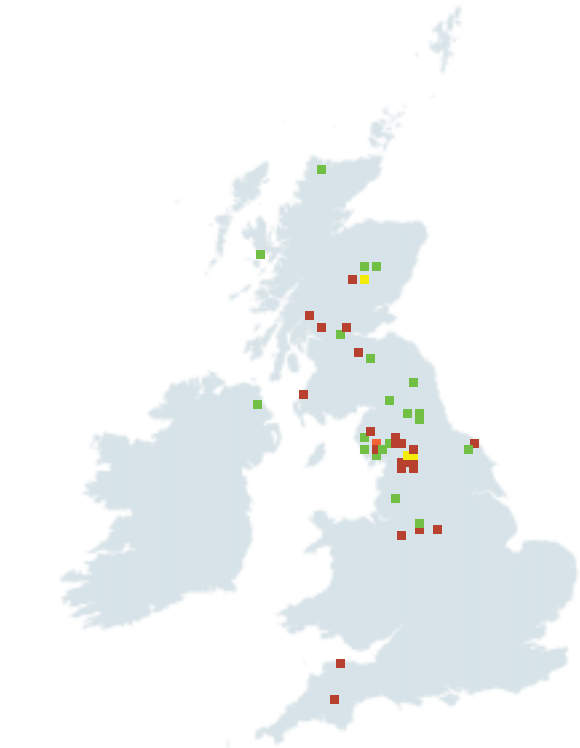


Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

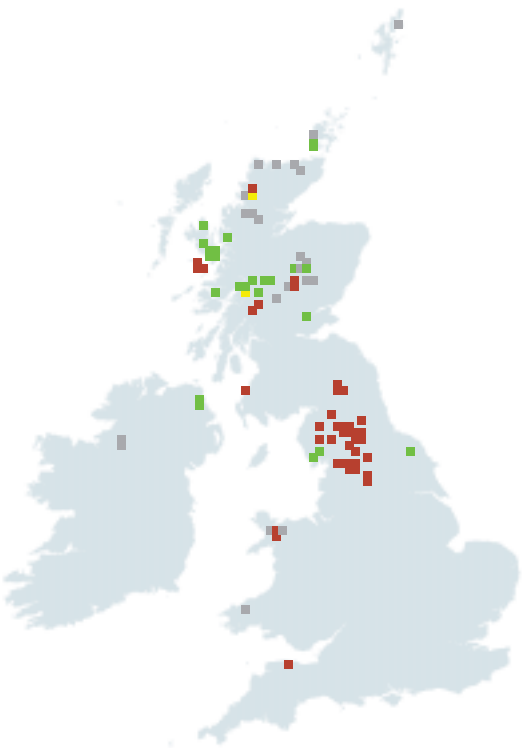
Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

SSSIs



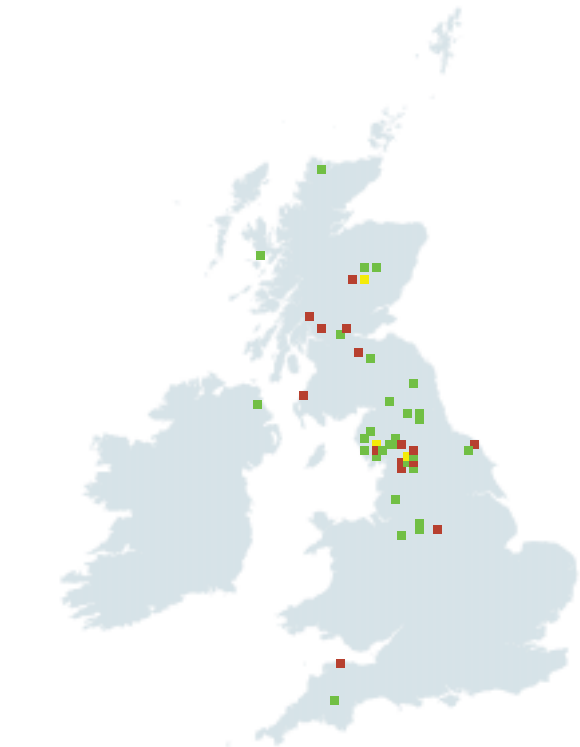
Current condition of SSSI/ASSI features

Natura 2000

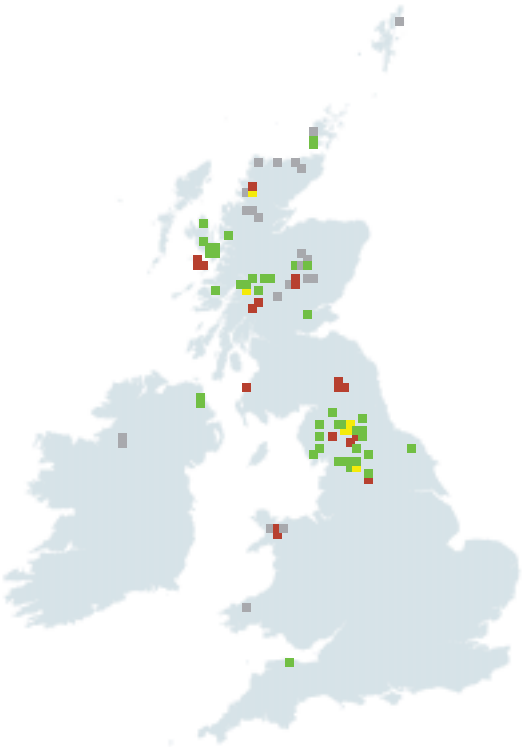


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

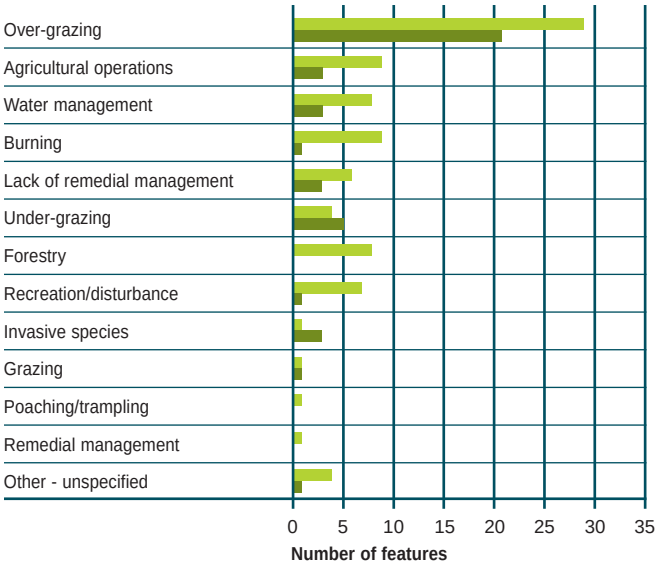
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20% Not assessed (Natura 2000 only)

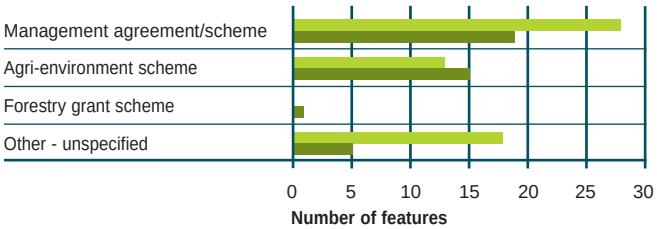
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

46% of upland fen and marsh features reported are in favourable condition. This is just above the average for all habitats, above the average for terrestrial habitats, but below the average for all features combined. 46% of the A/SSSI upland fen, marsh and swamp features and 45% of SAC features reported are in favourable condition. A further 18% of A/SSSI and 19% of SAC features reported are unfavourable-recovering.

The reported activity that has had the greatest impact contributing to unfavourable condition on upland fen, marsh and swamp features is over-grazing. This leads to loss of vegetation structure and the failure of more palatable or vulnerable species to reproduce and maintain themselves. It can also lead to the loss of plant species and associated fauna, and the spread of rank, unpalatable plant species. In extreme cases, very heavy grazing and trampling can lead to exposure of bare soil and erosion. There is therefore a need for grazing to be undertaken at the right time and with the right intensity. The reporting of measures taken to address unfavourable condition indicates that management agreements/schemes and agri-environment schemes are in place on many sites. However, it is not yet known how long it may take to return upland fen, marsh and swamp features to favourable condition.

Fens and marshes - lowland

Context

Fens and marshes are characterised by a variety of vegetation types that are found on groundwater-fed (minerotrophic), peat, peaty soils, or mineral soils. These may be permanently, seasonally or periodically waterlogged. Fens are peatlands which receive water and nutrients from groundwater and surface run-off, as well as from rainfall. Flushes are associated with lateral water movement, and springs with localised upwelling of water. Marsh is a general term usually used to imply waterlogged soil; it is used more specifically here to refer to fen meadows and rush-pasture communities on mineral soils and shallow peats. Swamps are characterised by tall emergent vegetation. Reedbeds (i.e. swamps dominated by stands of common reed *Phragmites australis*) are also included in this type. Lowland is defined as below the level of agricultural enclosure. The altitude at which this occurs varies across the UK, typically becoming higher as one travels South.

Purple moor-grass and rush pastures occur on poorly drained, usually acidic soils in lowland areas. Their vegetation, which has a distinct character, consists of various species-rich types of fen meadow and rush pasture. Purple moor-grass *Molinia caerulea*, and rushes, especially sharp-flowered rush *Juncus acutiflorus*, are usually abundant. Just as the best examples of lowland heath contain a wide range of plant communities, so the same is true for this habitat: the characteristic plant communities often occur in a mosaic with one another, together with patches of wet heath, dry grassland, swamp and scrub. Purple moor-grass and rush pastures are highly susceptible to agricultural modification and reclamation throughout their range. In Devon and Cornwall, where the habitat is known as Culm grassland, only 8% of that present in 1900 remains, with 62% of sites and 48% of the total area being lost between 1984 and 1991. Fragmentation and isolation of stands have been common.

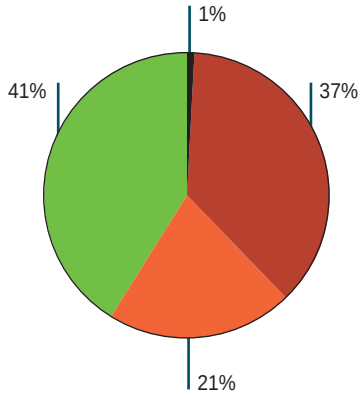
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	18%	41%	38%
Main monitoring coverage	E, S, W, NI	E, S, NI	
Reported assessments	80	709	789
Completeness of assessments	85%	unknown	
Distribution of features			UK

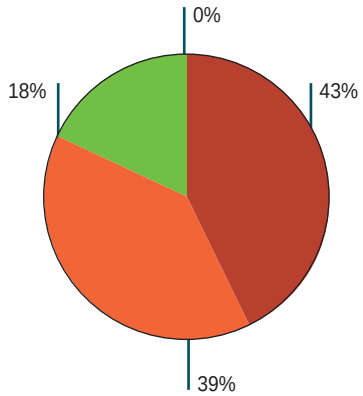
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	46	446
Scotland	10	222
Wales	19	0
Northern Ireland	5	41
United Kingdom	**80**	**709**

Condition assessment - SSSI features



Condition assessment - Natura 2000



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

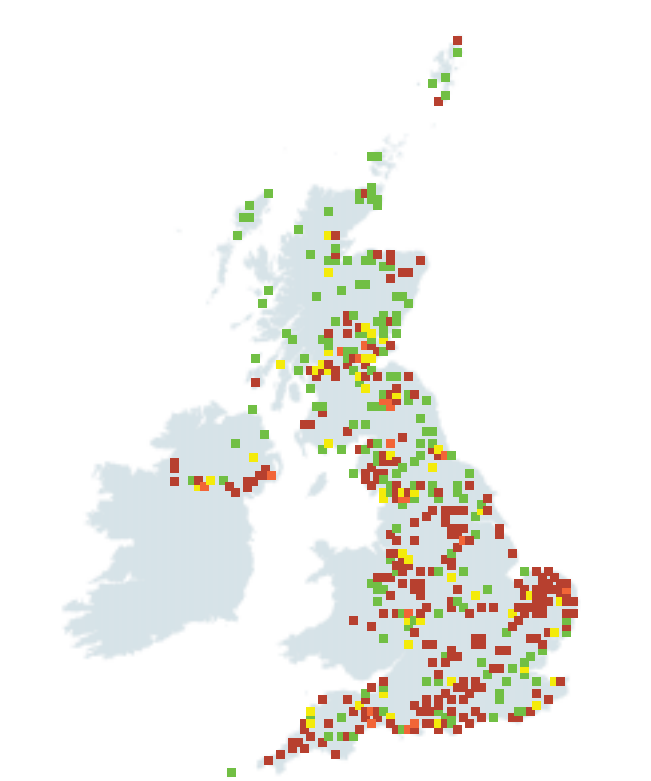
Key:

Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

This habitat type does not include neutral grasslands on floodplains and grazing marshes which are included in the *Neutral grassland* reporting category, nor ombrotrophic mires (blanket, raised and intermediate bogs) as these are included in the *Blanket bogs* and *Lowland raised bogs* reporting categories. It also does not include areas of carr (fen woodland dominated by species such as willow *Salix* spp., alder *Alnus glutinosa* or birch *Betula* spp.) as these are covered in the *Broadleaved and mixed woodland* reporting category.

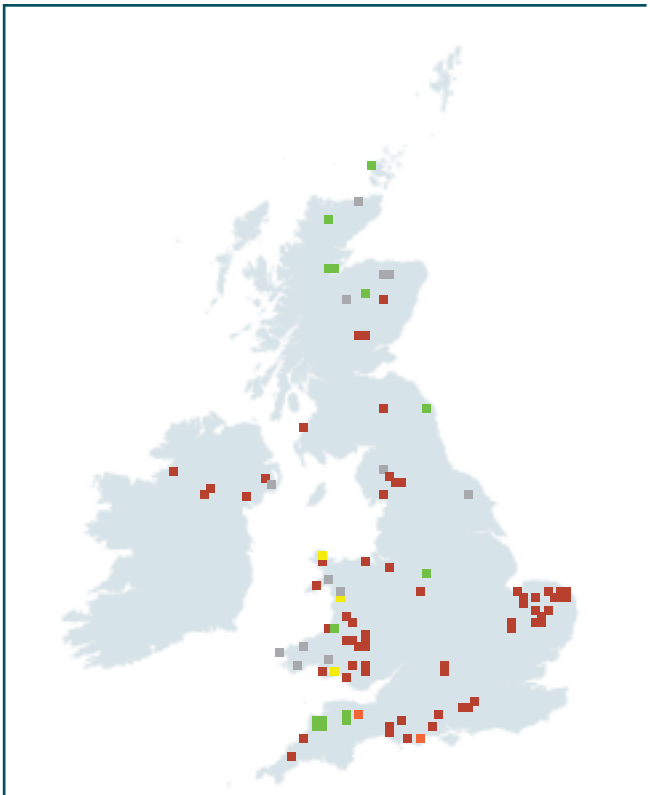
SSSIs can be notified if they qualify under criteria outlined in *Chapter 7 Fens* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

SSSIs



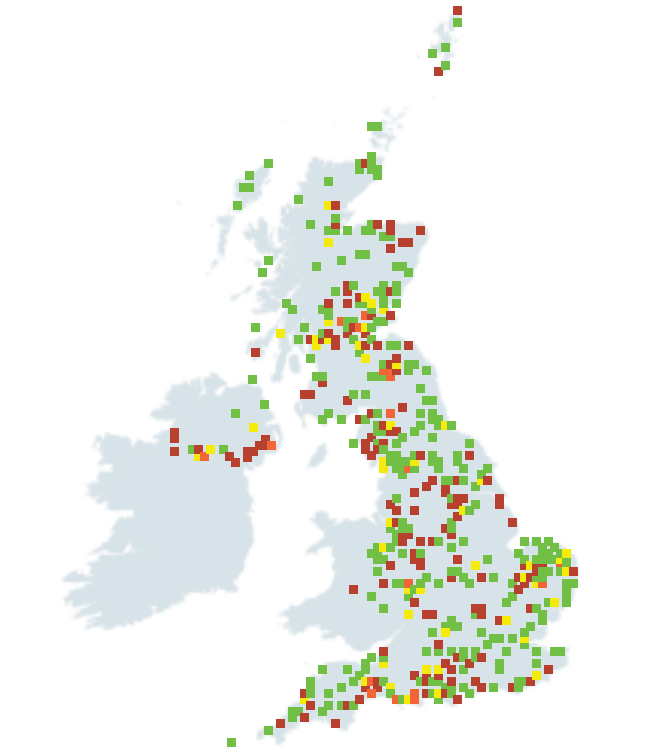
Current condition of SSSI/ASSI features

Natura 2000

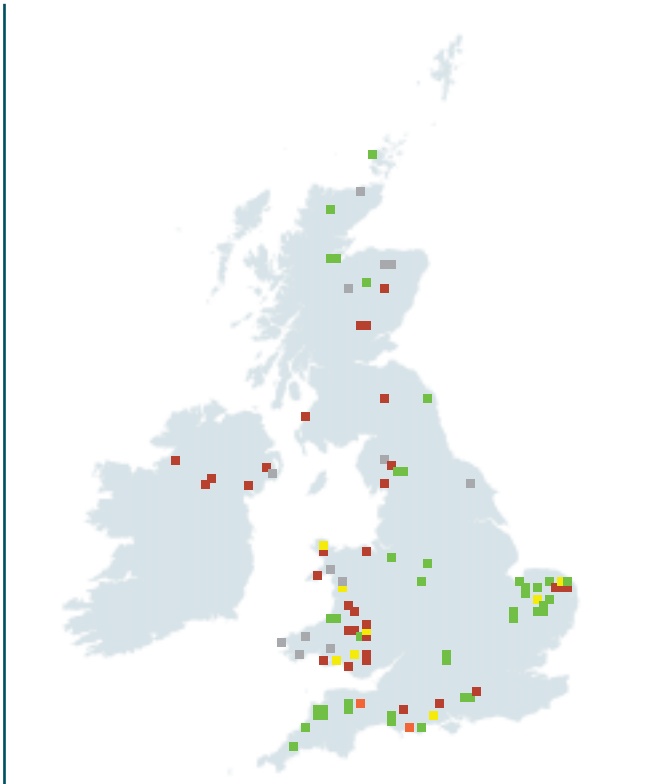


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

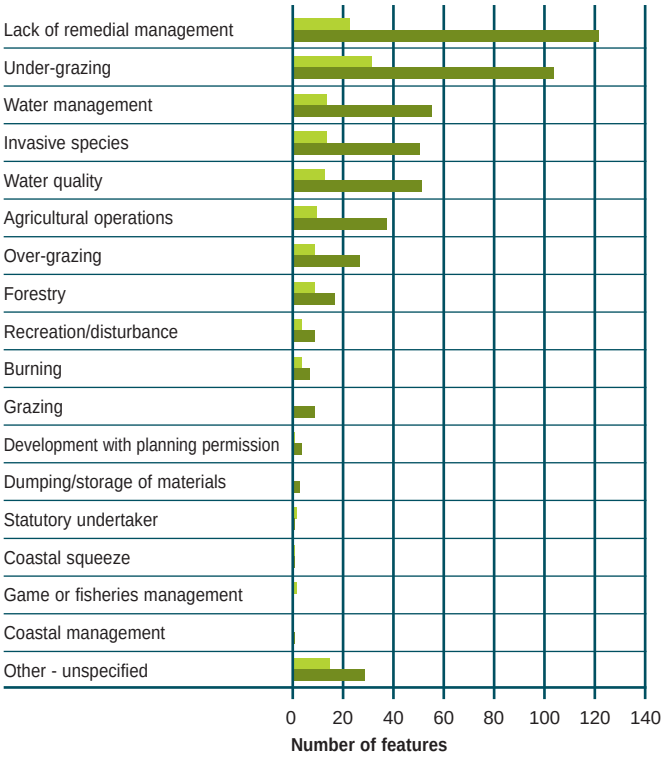
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% | 50-80% | 20-50% | 0-20% | Not assessed (Natura 2000 only)

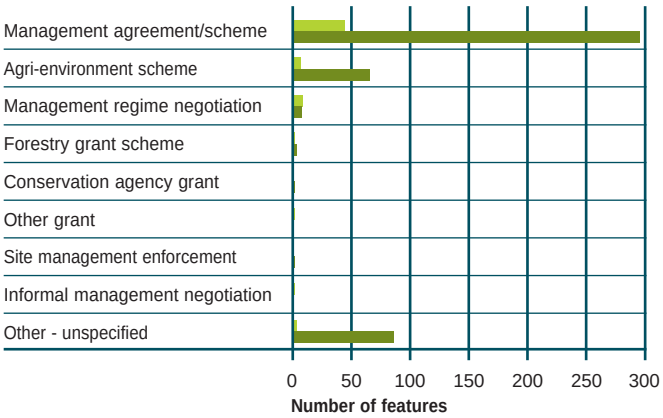
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

Overall, 38% of lowland fen marsh and swamp features reported are in favourable condition. This is about the average for terrestrial habitats, but below the average for all habitats or all features combined together. 41% of A/SSSI features and 18% of SAC features reported are in favourable condition. 21% of A/SSSI and 39% of SAC features reported are unfavourable-recovering.

A sample of English fen, marsh and swamp sites was split into topographic types. They showed that the category with the highest proportion in favourable condition was spring fen (40%) followed by water fringe fen (30%), then basin fen (29%), floodplain fen (27%), and valley fen (26%). The more favourable condition of spring fen may reflect the higher quality of the groundwater on which they depend, as opposed to more nutrient-enriched surface water capable of entering the other categories. There is also the implication in the comparison of these figures that fen condition in England is worse than elsewhere in the UK.

The main reasons for features not being in favourable condition are lack of remedial management, under-grazing, water management, invasive species, and water quality. This may reflect a number of issues commonly encountered in relation to fens. For example, it is natural for open fens to change spontaneously into wooded fens, and management, such as scrub clearance and grazing, is required to prevent this. The management of surface and groundwater is clearly crucial to providing the surface:groundwater requirements of each type of fen, as are its constituents, for example basic ions such as calcium, its pH, and quantity of the plant nutrients nitrogen and phosphorus.

Air pollution is not listed as a cause of unfavourable condition in fens. It is likely that surveyors would attribute the its effects to other causes, such as drainage. Critical loads of sulphur are still being exceeded for some types of wetland, and are predicted to do so at least until 2010. Dry deposition of ammonia is still very high in most parts of England, Wales and Northern Ireland. Apart from the inhibitory effect of bisulphite on some *Sphagnum* moss species, deposition of nitrogen encourages rank competitors such as the purple moor-grass *Molinia caerulea*. It should be borne in mind that several fen types bear similar vegetation to lowland raised bog and blanket mire, so that observations appropriate to them in respect of air quality would also apply.

Purple moor-grass and rush pastures

Under a third of purple moor-grass and rush pasture features reported are in favourable condition (30% of A/SSSI, and 4% of SAC features). There is some variation between countries, with Scottish SSSIs (62% favourable) in rather better condition than those in Northern Ireland (42% favourable) or England (22% favourable).

The unfavourable-recovering category accounts for a significant proportion of assessments reported (32% of A/SSSI features, 56% of SACs), particularly in England. Under-management is the main cause of unfavourable condition, specifically under-grazing and abandonment. Scrub encroachment is the common result, sometimes together with invasive species problems.

Rivers and streams

Context

In their natural state rivers are dynamic systems, continually modifying their form. The mosaic of features found in rivers and streams supports a diverse range of plants and animals. For example, riffles and pools support aquatic species, and exposed sediments such as shingle beds and sand bars are important for a range of invertebrates, notably ground beetles, spiders and craneflies. Marginal and bankside vegetation support an array of wild flowers and animals. Rivers and streams often provide a wildlife corridor link between fragmented habitats in intensively farmed areas.

However in many cases their ability to rejuvenate and create new habitat has been reduced or arrested by flood defence structures and impoundments. Few rivers in the UK have not been physically modified by man and such rivers represent a very valuable resource. Erosion of banks has also been caused by canalisation and the removal of tree cover in historic times. Such activities have resulted in changes in the frequency and magnitude of flooding, altering seasonal patterns of flows and hydrograph form. In addition, flow regulation has altered patterns of sediment transport and nutrient exchange in river systems. Any resulting eutrophication can have detrimental effects on floodplain habitat which still retains some connection with the main stream.

The plant and animal assemblages of rivers and streams vary according to their geographical area, underlying geology and water quality. Swiftly-flowing upland, nutrient-poor rivers support a wide range of mosses and liverworts and relatively few species of higher plants. The invertebrate fauna of upland rivers is dominated by stoneflies, mayflies and caddisflies, while fish such as salmon *Salmo salar* and brown trout *Salmo trutta* are often present. In contrast, lowland nutrient-rich systems are dominated by higher plants, and coarse fish such as chub *Leuciscus cephalus*, dace *Leuciscus leuciscus* and roach *Rutilus rutilus*. Where nutrient levels are artificially raised, the occurrence of algae increases.

Adjacent semi-natural wetland habitats such as unimproved floodplain grasslands, marshy grassland, wet heath, fens, bogs, flushes, swamps and wet woodland, although intimately linked with the river, are covered in other reporting categories.

SSSIs can be notified if they qualify under criteria outlined in Section 6 of *Chapter 6 Freshwater habitats* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

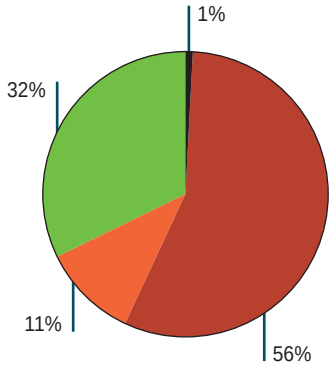
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	8%	32%	28%
Main monitoring coverage	E, W	E	
Reported assessments	13	76	89
Completeness of assessments	54%	unknown	
Distribution of features			UK

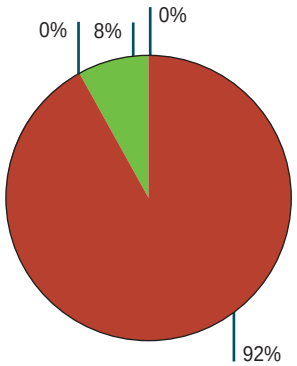
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	12	72
Scotland	0	4
Wales	1	0
Northern Ireland	0	0
United Kingdom	**13**	**76**

Condition assessment - SSSI features



Condition assessment - Natura 2000

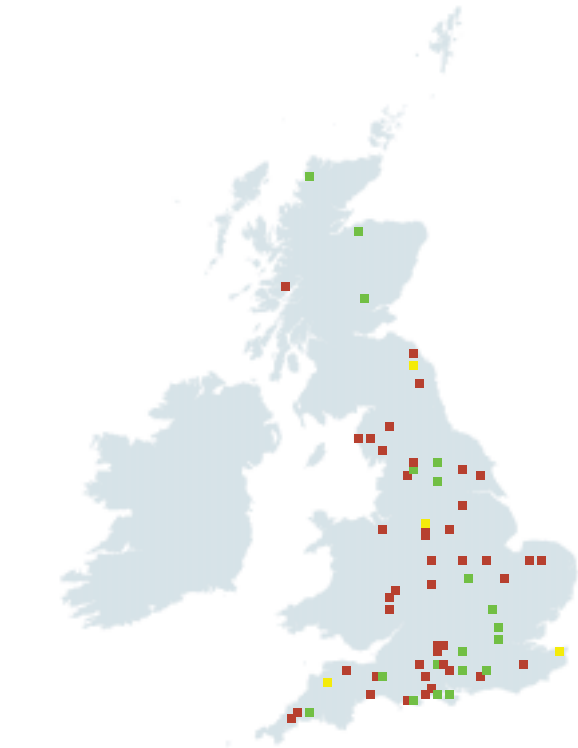


Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

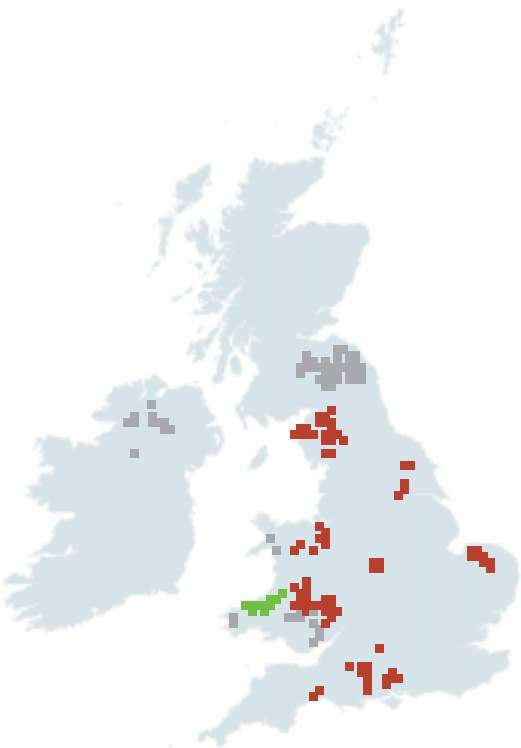
Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

SSSIs



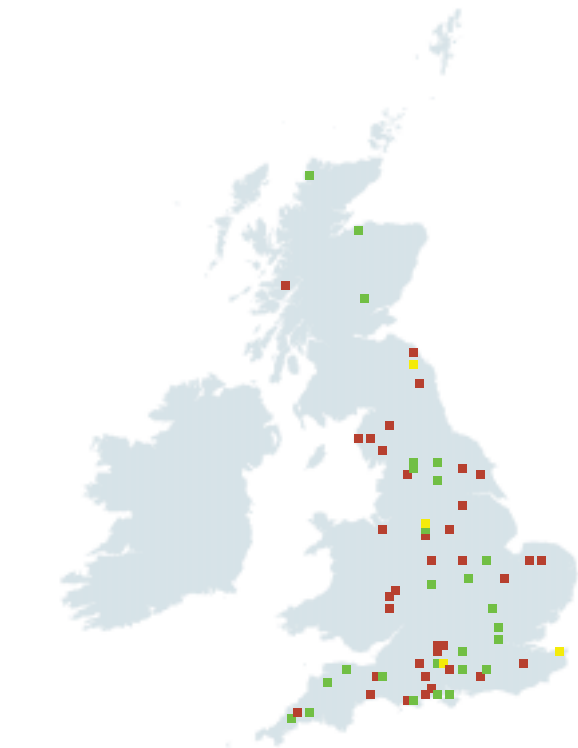
Current condition of SSSI/ASSI features

Natura 2000

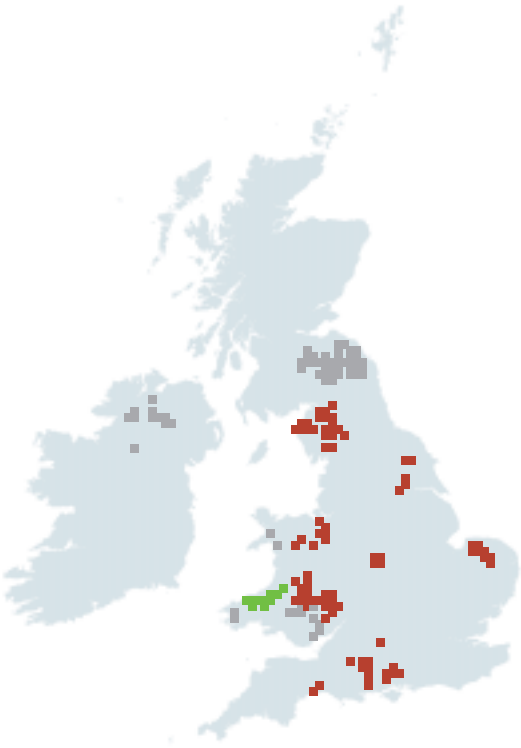


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

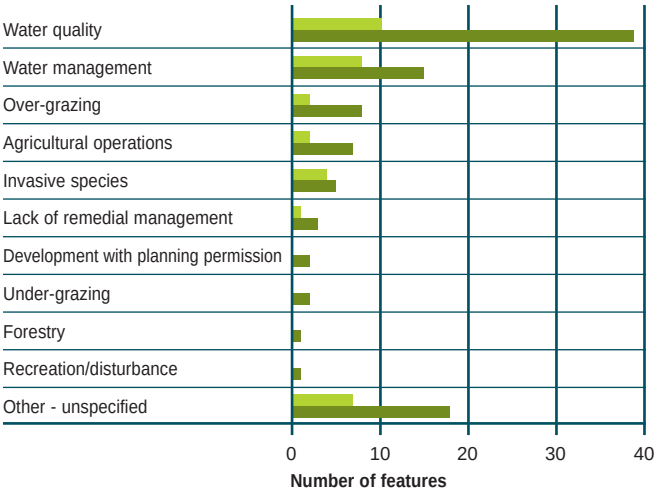
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% | 50-80% | 20-50% | 0-20% | Not assessed (Natura 2000 only)

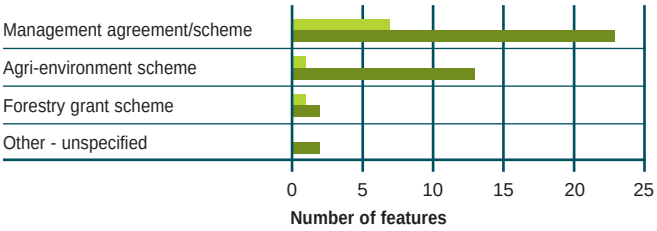
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

28% of river and stream features reported are in favourable condition. River and stream features are generally in poor condition compared to other habitats, freshwater or otherwise. This is well below the average for all feature types combined. 32% of A/SSSI features and 8% of SAC features reported are in favourable condition. A further 11% of A/SSSI features reported are unfavourable-recovering.

Pollution and water quality issues are the main reasons for rivers and streams being considered in unfavourable condition. Many rivers have also been physically modified, often more than a century ago. Diffuse pollution is becoming increasingly recognised as a problem. In order to tackle this, the water companies' investment programmes will include the installation of phosphorus removal at most of the relevant sewage treatment works by 2010. In 2004 pilot schemes were launched to tackle diffuse pollution in four English river SAC catchments (Cumbrian Derwent, Clun, Wensum, and Hampshire Avon).

Other impacts on river SSSIs include abstraction, particularly from chalk aquifers, and invasive species such as the American signal crayfish *Pacifastacus leniusculus*. This species has not only ousted the native white-clawed crayfish *Austropotamobius pallipes* from many rivers, but is undermining banks causing their collapse, as well as siltation of gravels on chalk rivers such as the Lambourn SAC.

For some rivers, there are pressures causing concern adjacent to these sites. For example, invasive plant species such as giant hogweed *Heracleum mantegazzianum* and Japanese knotweed *Fallopia japonica* outside the site boundary. In some cases management action is already in place to forestall potential future problems, for example to address problems of nutrient-enrichment from agriculture.

Standing water

Context

Standing water includes natural systems such as lakes, meres and pools, as well as man-made waters such as reservoirs, canals, ponds and gravel pits. It includes the open water zone (which may contain submerged, free-floating or floating-leaved vegetation) and water fringe vegetation. Ditches with open water for at least the majority of the year are also included in this habitat type.

Standing waters are usually classified according to their nutrient status and this can change naturally over time or as a result of pollution. These lake types exist along an environmental gradient and there are three main types, namely: oligotrophic (nutrient-poor), eutrophic (nutrient-rich), and mesotrophic (intermediate). Other types of standing water include dystrophic (highly acidic, peat-stained water), marl lakes, brackish-water lakes, turloughs and other temporary water bodies. Coastal saline lagoons are not included in this habitat type but are covered by the *Lagoons* category.

The transition between open water and land is often occupied by tall emergent vegetation called swamp or reedbed, or wet woodland called carr. Where this is a feature in its own right it has been included in the *Fens and marsh* reporting category or the *Broadleaved and mixed woodland* reporting category as appropriate.

SSSIs can be notified if they qualify under criteria outlined in Sections 4 and 5 of *Chapter 6 Freshwater habitats* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

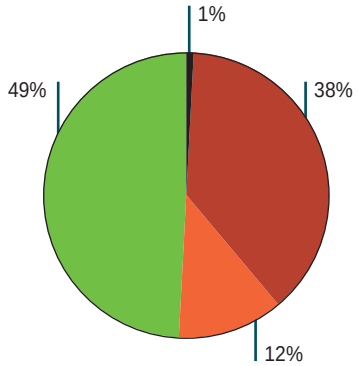
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition*	68%	50%	52%
Main monitoring coverage	E, S	E, S	
Reported assessments	66	447	513
Completeness of assessments	61%	unknown	
Distribution of features			UK

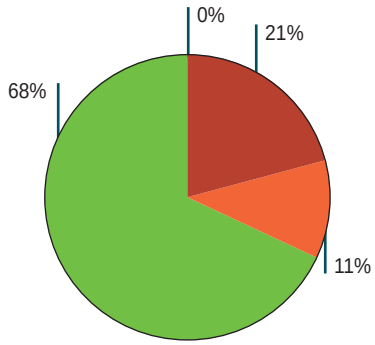
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	21	348
Scotland	42	98
Wales	2	0
Northern Ireland	1	1
United Kingdom	**66**	**447**

Condition assessment - SSSI features



Condition assessment - Natura 2000



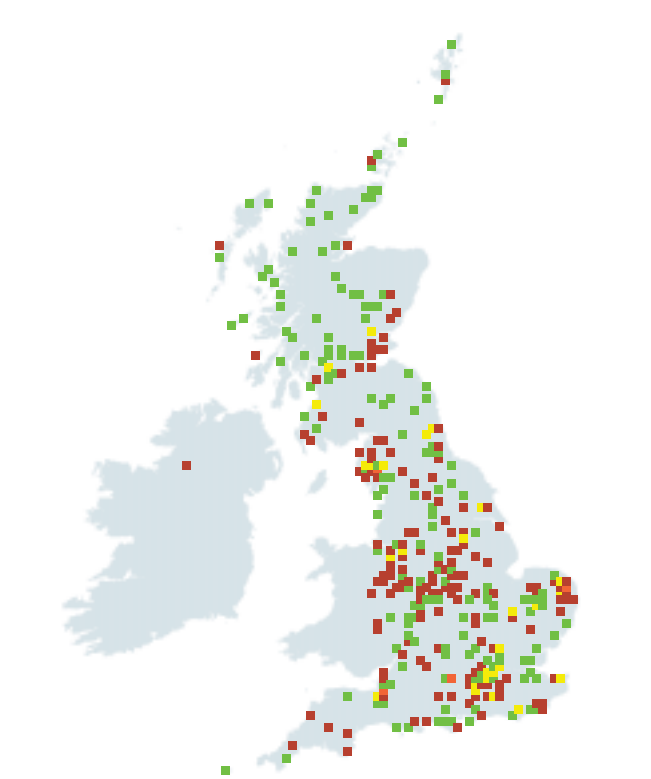
Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

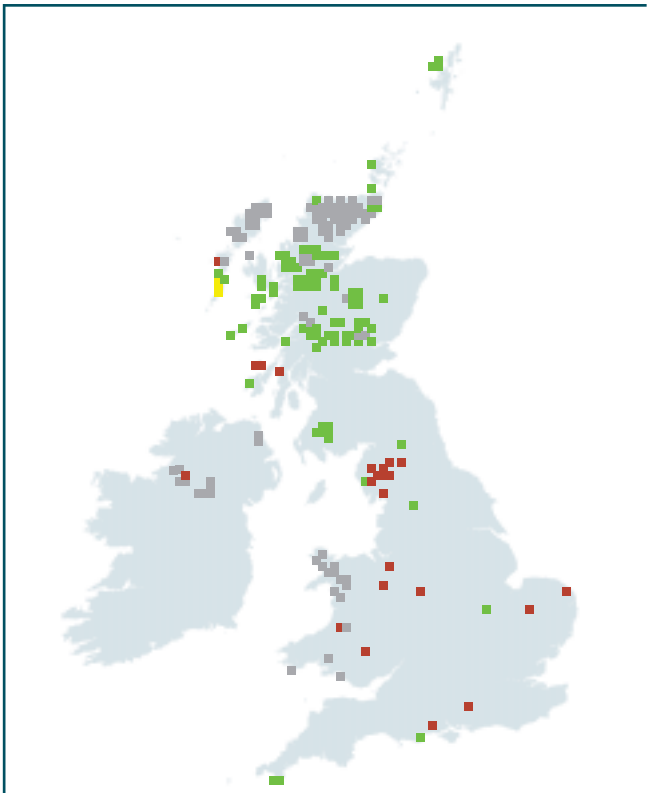
**Note: the figure for favourable condition in the pie charts is marginally different from that shown in the summary statistics table - this is a result of rounding to show small segments effectively; the figures in the summary statistics table are correct.*

SSSIs



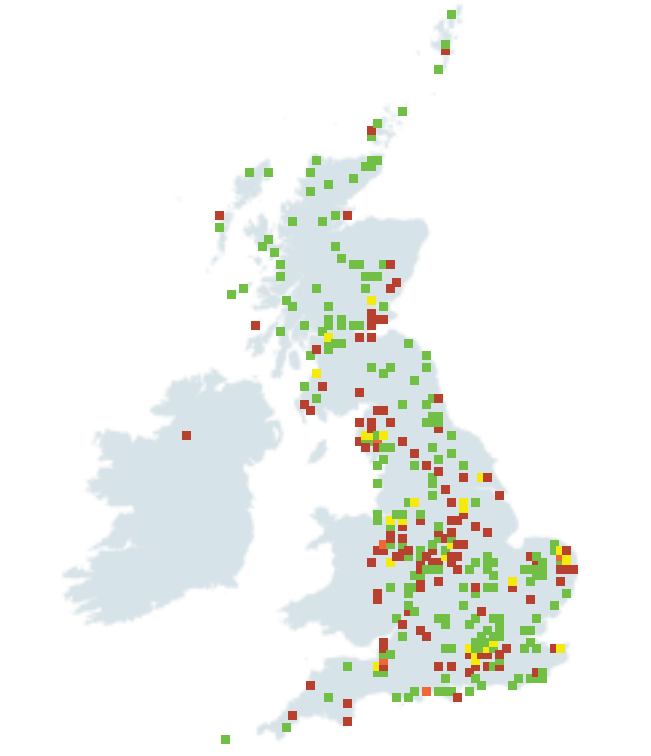
Current condition of SSSI/ASSI features

Natura 2000

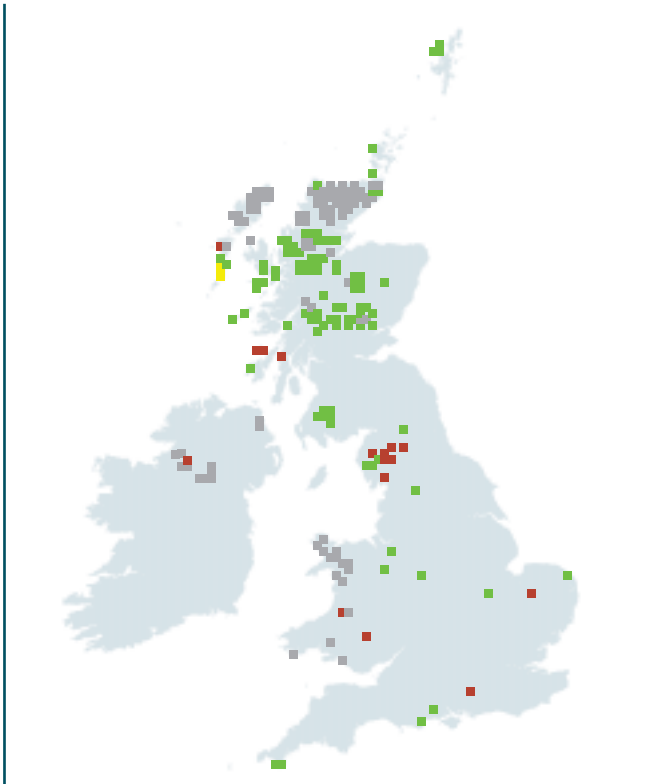


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

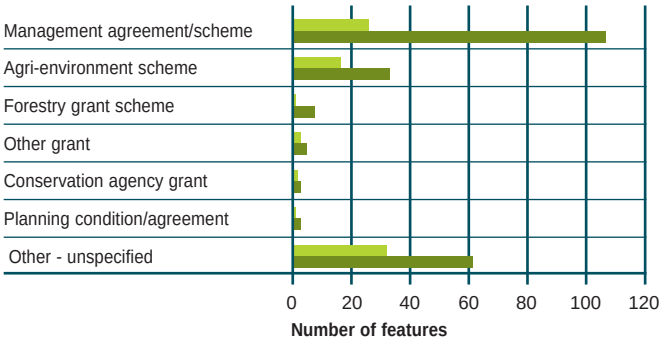
80-100% 50-80% 20-50% 0-20% Not assessed (Natura 2000 only)

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities

The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

52% of standing water features reported are in favourable condition. This is above the average for freshwater habitat features, above the average for habitat features, and slightly below the average for all features combined together. 50% of A/SSSIs for standing water features reported are in favourable condition and 12% unfavourable-recovering. 68% of SAC features reported are in favourable condition and 11% are unfavourable-recovering.

The proportion of standing water features reported in favourable condition is substantially better than for rivers and streams. This may be due to the location of many of the waterbodies reported upon; they tend to be upland or northern in distribution, and therefore less subject to lowland agricultural pressures.

A wide variety of pressures were recorded as acting on standing water features, with water quality being the most frequently recorded. In many cases water quality problems have diffuse sources and at present the mechanisms for dealing with these off-site problems are limited. Other common pressures are water management, invasive species and land use practices. However, it is likely that certain pressures, such as the presence of invasive species, may be under-reported due to limited systematic recording. Management agreements and schemes are the most common measures currently underway for improving the condition of sites.

Saltmarsh

Context

Coastal saltmarshes in the UK (also known as 'merse' in Scotland) comprise the upper, vegetated portions of intertidal mudflats, lying approximately between mean high water neap tides and mean high water spring tides.

Saltmarshes are usually restricted to comparatively sheltered locations in five main physiographic situations: in estuaries, in saline lagoons, behind barrier islands, at the heads of sea lochs, and on beach plains. The development of saltmarsh vegetation is dependent on the presence of intertidal mudflats. Communities are additionally affected by differences in climate, the particle size of the sediment and, within estuaries, by decreasing salinity in the upper reaches.

The characteristic vegetation consists of a limited number of halophytic (salt-tolerant) species adapted to regular immersion by the tides. A natural saltmarsh system shows a clear zonation according to the frequency of inundation. At the lowest level the pioneer glassworts *Salicornia* spp. can withstand immersion by as many as 600 tides per year, while transitional species of the upper marsh can only withstand occasional inundation.

Saltmarshes are an important resource for wading birds and wildfowl. Areas with high structural and plant diversity, particularly where freshwater seepages provide a transition from fresh to brackish conditions, are particularly important for invertebrates. Saltmarshes also provide sheltered nursery sites for several species of fish.

SSSIs can be notified if they qualify under criteria outlined in Section 3 of *Chapter 1 Coastlands* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

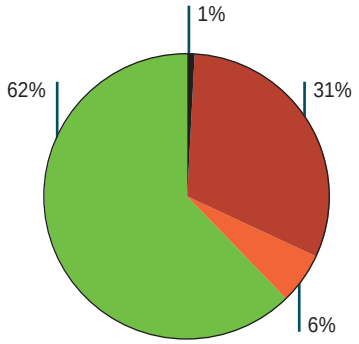
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	43%	62%	58%
Main monitoring coverage	E, S, NI	E, S, NI	
Reported assessments	28	118	146
Completeness of assessments	67%	unknown	
Distribution of features			UK

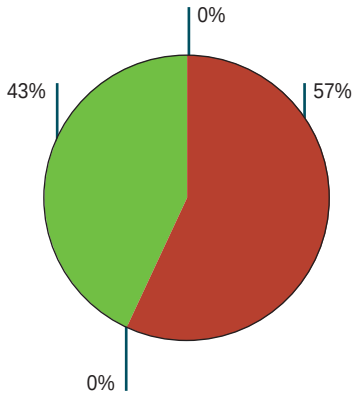
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	21	57
Scotland	4	53
Wales	1	0
Northern Ireland	2	8
United Kingdom	**28**	**118**

Condition assessment - SSSI features



Condition assessment - Natura 2000



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

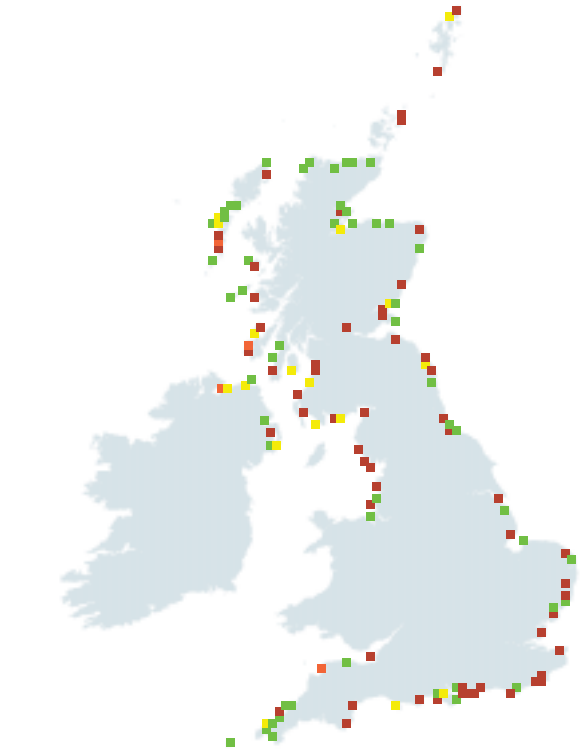
Favourable

Unfavourable-recovering

Unfavourable

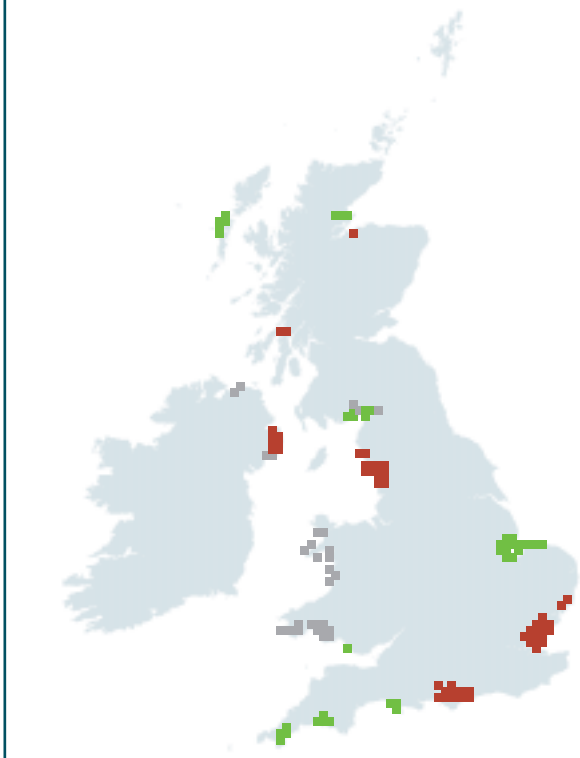
Destroyed (whole or part)

SSSIs



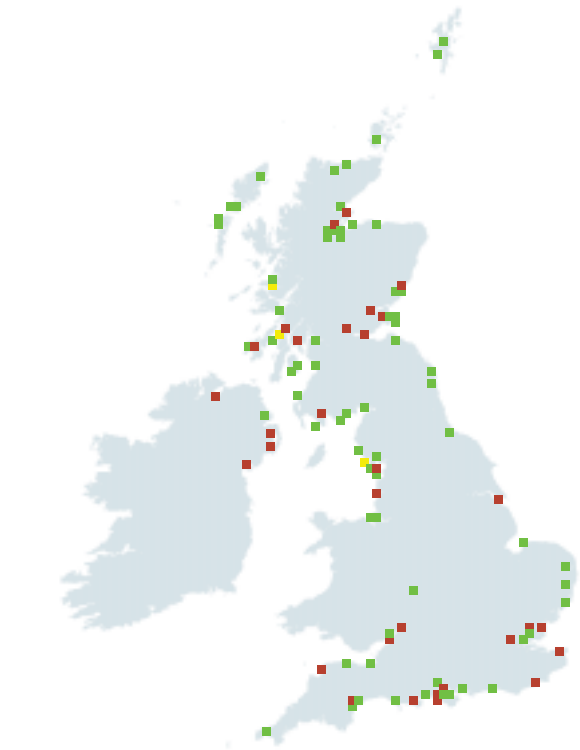
Current condition of SSSI/ASSI features

Natura 2000

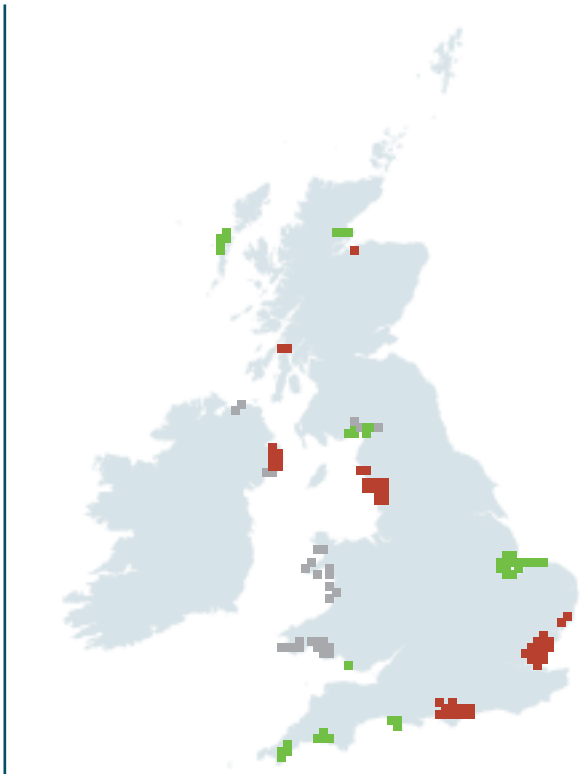


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

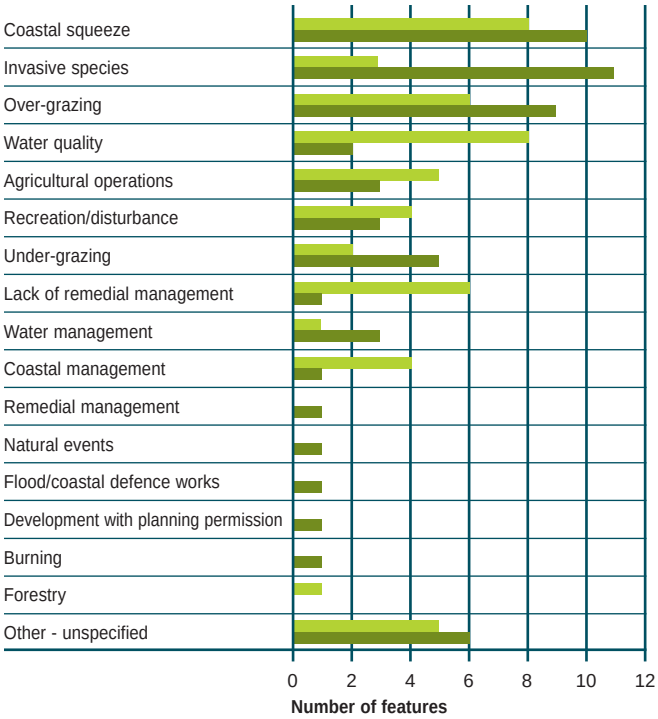
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% | 50-80% | 20-50% | 0-20% | Not assessed (Natura 2000 only)

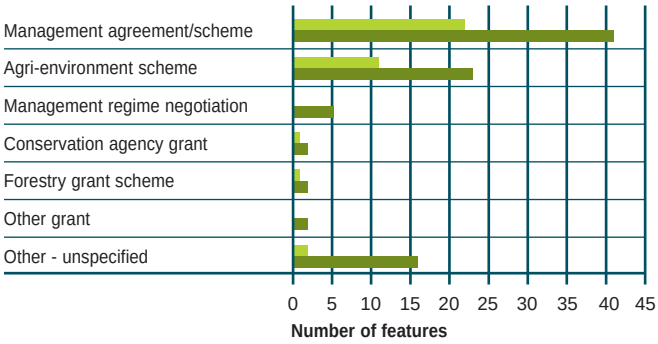
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

58% of saltmarsh features reported are in favourable condition. This is about the average for marine and coastal features, above the average for all habitat features and just above the average for all features combined. 62% of A/SSSI features reported are in favourable condition and 6% are unfavourable-recovering. 43% of the SAC features reported are in favourable condition. Data from the SAC series indicate that the '*Salicornia'* feature seems to be in poorer condition than the 'Atlantic salt meadow' feature.

Coastal squeeze is a major cause of unfavourable condition in this reporting category. Coastal squeeze occurs when sea defences prevent vegetation migrating landwards in response to sea-level rise. The result is a loss of shoreline habitats. Inappropriate coastal management includes the use of rock armour or groynes that interrupt sediment transport along the coast and therefore natural coastal processes. Coastal squeeze and inappropriate coastal management are being addressed in England through shoreline management plans, estuary strategies and through other mechanisms such as high level biodiversity targets within the Environment Agency. However, much of this has a long lead-in time and outcomes will be constrained by strategic considerations outwith the control of the country conservation agencies.

Water quality also affects habitats in the intertidal zone. Pollution arises from point sources, such as sewage treatment outfalls, or diffuse sources such as agricultural run-off. This is in part being addressed through a review of consents for discharges being carried out and for plans to increase tertiary treatment in waste water treatment works. Recent work indicates water quality may be more important for the condition of saltmarshes and mudflats than hitherto recognised, and links between condition assessments and water quality issues need to be strengthened.

Agricultural operations may also cause unfavourable condition, as can under- or over-grazing. Saltmarshes are affected by the difficulties of obtaining sustainable grazing at appropriate levels in such areas.

Sea cliffs

Context

Vegetated sea cliffs are steep slopes fringing hard or soft coasts, created by past or present marine erosion, and supporting a wide diversity of vegetation types with variable maritime influence. Exposure to the sea (wave splash and sea spray) is a key determinant of the type of sea cliff vegetation, although the amount of rainfall is also a contributing factor. The most exposed areas support maritime vegetation dominated by a range of salt-tolerant plants. More sheltered cliffs support communities closely related to those found on similar substrates inland, such as grassland and heath, with only a minor maritime element in the flora.

There is considerable geographical variation in sea cliff vegetation types across the UK. Southern sites are rich in Atlantic-Mediterranean species, while northern sites support boreal species such as the endemic Scottish primrose *Primula scotica*.

Exposure is greatest on the south-west and northern coasts. The long fetch associated with these coasts generates high waves and swell, and the prevailing winds help deliver salt spray to the cliff face and cliff tops. The plant communities of the vertical hard rock cliffs in the north, which are exposed to the extreme exposure of the north Atlantic, are characterised by roseroot *Sedum rosea* and Scots lovage *Ligusticum scoticum*. Cliffs may also support sea campion *Silene maritima* and thrift *Armeria maritima* and, in some rich areas, Arctic species such as purple saxifrage *Saxifraga oppositifolia* and moss campion *Silene acaulis*. Cliffs are also important breeding grounds for seabirds like the kittiwake *Rissa tridactyla*, razorbill *Alca torda*, and guillemot *Uria aalge*.

In southern Britain the vegetation of hard rock cliffs tends to be formed by communities of thrift *Armeria maritima*, rock samphire *Crithmum maritimum*, and buck's-horn plantain *Plantago coronopus*. The rare curved hard-grass *Parapholis incurva*, and the sea lavender *Limonium recurvum* may also be present. The relatively sheltered, dry, calcareous cliffs on the south coast, are sites for the wild cabbage *Brassica oleracea* that grows on crumbling edges and sloping ledges. This species is rare in Britain and is found in association with other rare species such as early spider-orchid *Ophrys sphegodes* and Nottingham catchfly *Silene nutans*.

SSSIs can be notified if they qualify under criteria outlined in Section 7 of *Chapter 1 Coastlands* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

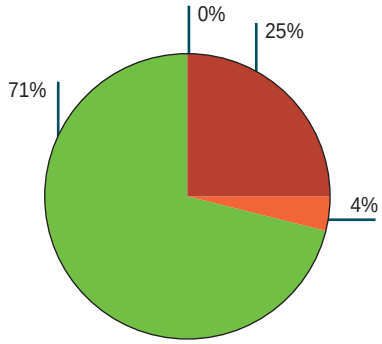
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	66%	71%	70%
Main monitoring coverage	E, S, W	E, S, NI	
Reported assessments	35	145	180
Completeness of assessments	88%	unknown	
Distribution of features			UK

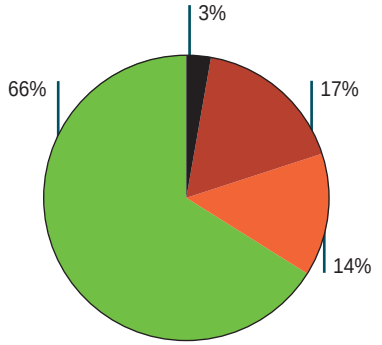
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	17	67
Scotland	13	70
Wales	4	0
Northern Ireland	1	8
United Kingdom	**35**	**145**

Condition assessment - SSSI features



Condition assessment - Natura 2000

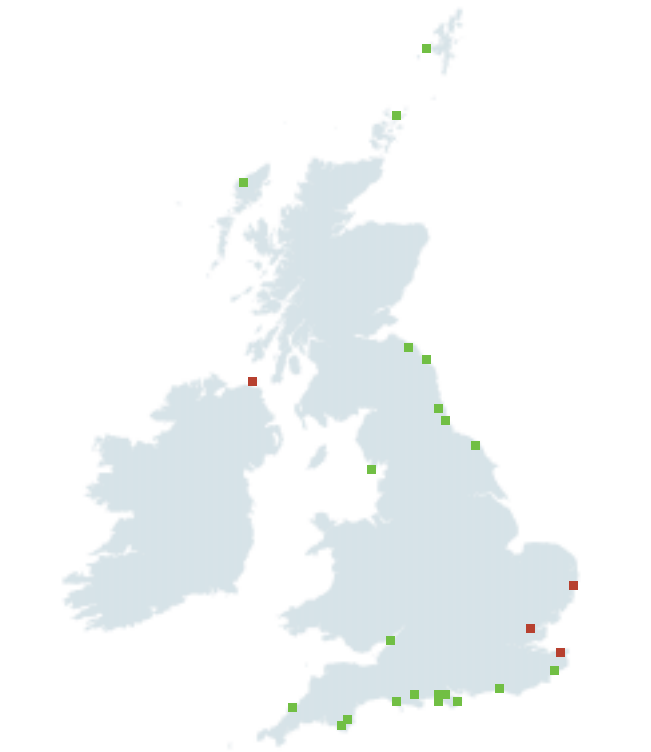


Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

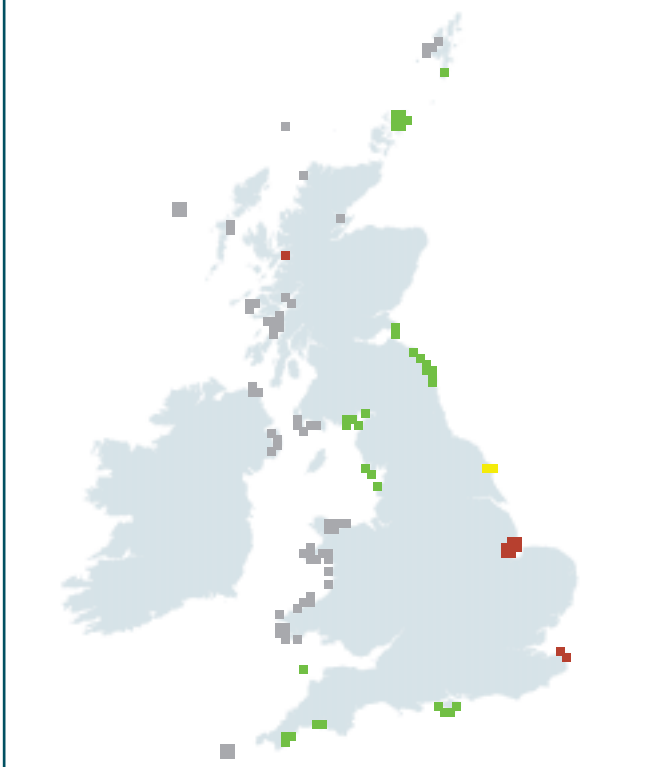
Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

SSSIs



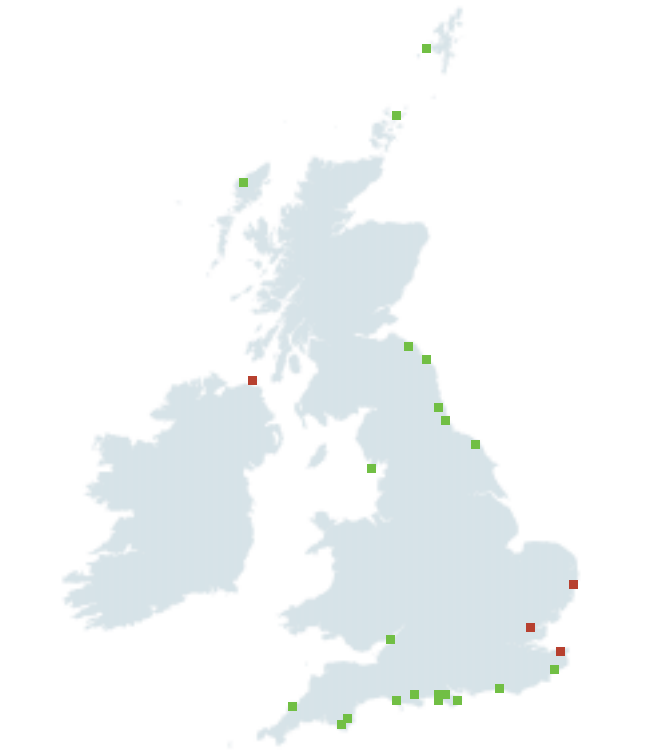
Current condition of SSSI/ASSI features

Natura 2000

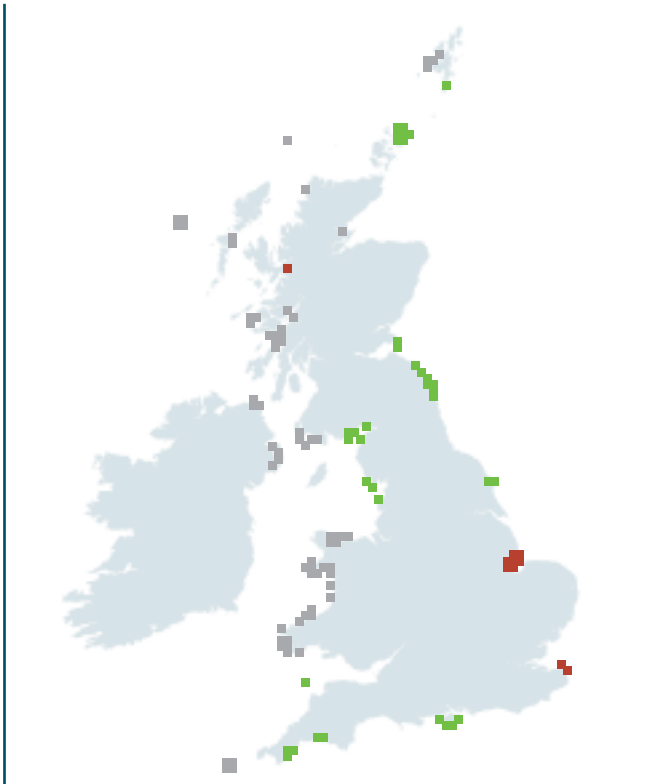


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

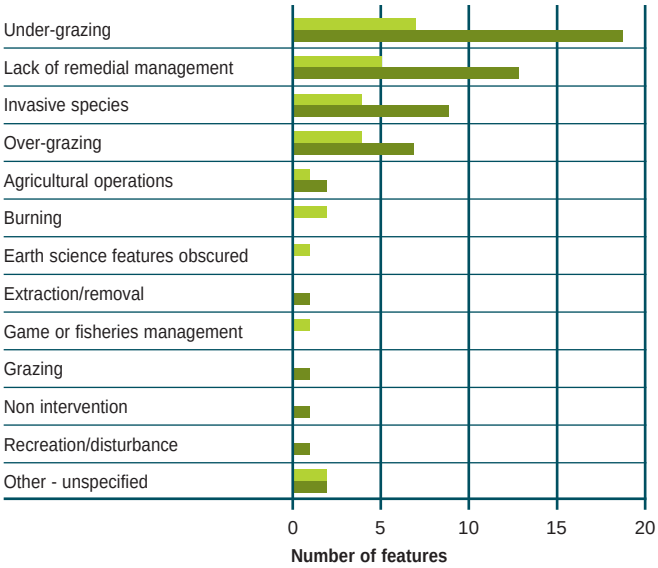
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20% Not assessed (Natura 2000 only)

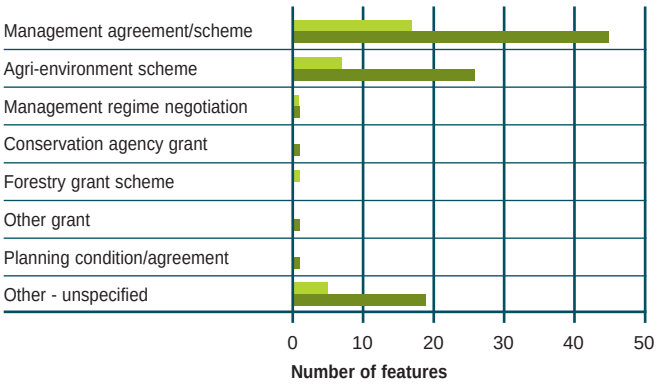
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

70% of sea cliff features reported are in favourable condition. This is above the average for marine and coastal features, for all habitats features and for all features combined together. 71% of A/SSSI features and 66% of SAC features reported are in favourable condition. A further 4% of A/SSSI features and 14% of SAC features reported are in unfavourable-recovering condition.

Very few assessments had data on the reasons for unfavourable condition. However, the most significant issues causing unfavourable condition involve habitat management. Unfavourable condition is caused by under-grazing, invasive species and lack of remedial management. Without grazing many areas will become rank grassland or overrun by scrub leading to a loss of quality of the habitat. Sustaining grazing and scrub control programmes are complicated by the nature of cliff sites and problems related to stock and public access.

Management agreements are, however, in place for a significant number of features. Ongoing or proposed coastal protection works continue to have an impact on sites; as these will stop coastal processes functioning and affect the quality of the habitat. Sediment supply from eroding cliffs is also necessary to maintain littoral sediment features in many areas.

Dunes, shingle and machair

Context

These habitats occur above the high water mark, but often in areas which are influenced by wave splash and sea-spray. Salt-tolerant species are the characteristic colonisers of this habitat and the biotopes present are strongly influenced by sediment size as well as the degree of wave exposure of the shore.

Strandline communities are often present on moderately exposed sandy shores, particularly on flat, slightly mobile beaches with little or no human disturbance. Under these conditions annual vegetation can develop on the accumulations of drift material rich in nitrogenous organic matter at or near the high water mark. Characteristic vascular plants include sea sandwort *Honckenya peploides*, saltwort *Salsola kali*, and sea beet *Beta maritima*.

On the upper margins of the shore, three major supralittoral sediment habitat types occur: coastal vegetated shingle, sand dunes, and machair.

Shingle beaches are widely distributed around the UK coastline and tend to form in high-energy environments where the sea can pile up pebbles above the tide line. There are five recognised types distributed around the UK: fringing beaches, spits, barriers, cuspate forelands and barrier islands. Herb-rich open pioneer stages colonise the seaward edge with species such as sea-kale *Crambe maritima*, sea pea *Lathyrus japonicus*, thrift *Armeria maritima*, yellow horned-poppy *Glaucium flavum* and sea holly *Eryngium maritimum*. Grassland, heath, scrub, and moss and lichen-dominated vegetation of old, stable, shingle occur further inland.

Distinct features within sand dune systems include fore dunes, yellow dunes, dune grassland, dune slacks, dune heath and dune scrub. Factors such as stability and moisture retention in these different systems determine what species are present. In mobile fore dunes, for example, typical species are marram *Ammophila arenaria* and, in northern areas of Britain, lyme-grass *Leymus arenarius*. Dune slacks, which are areas of wetland within the dune system, may have scarce plants such as fen orchid *Liparis loeselii* and petalwort *Petalophyllum ralfsii.*

Machair is a distinctive sand dune formation that is only found on the North and West coast of Scotland and in western Ireland. The soils are made up of wind deposited shell-sand blown inland from coastal beaches and mobile dunes, which lie over impermeable rock.

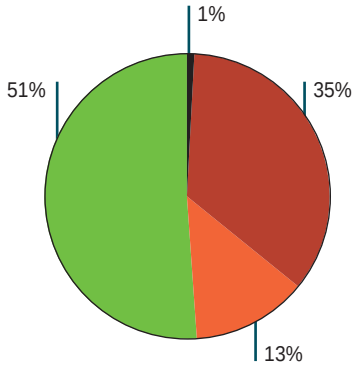
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition*	46%	50%	49%
Main monitoring coverage	E, S, W, NI	E, S, NI	
Reported assessments	153	189	342
Completeness of assessments	89%	unknown	
Distribution of features			UK

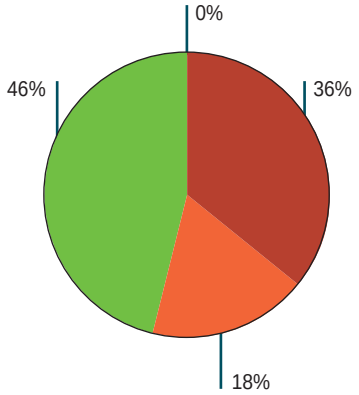
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	71	70
Scotland	53	103
Wales	18	0
Northern Ireland	11	16
United Kingdom	**153**	**189**

Condition assessment - SSSI features



Condition assessment - Natura 2000

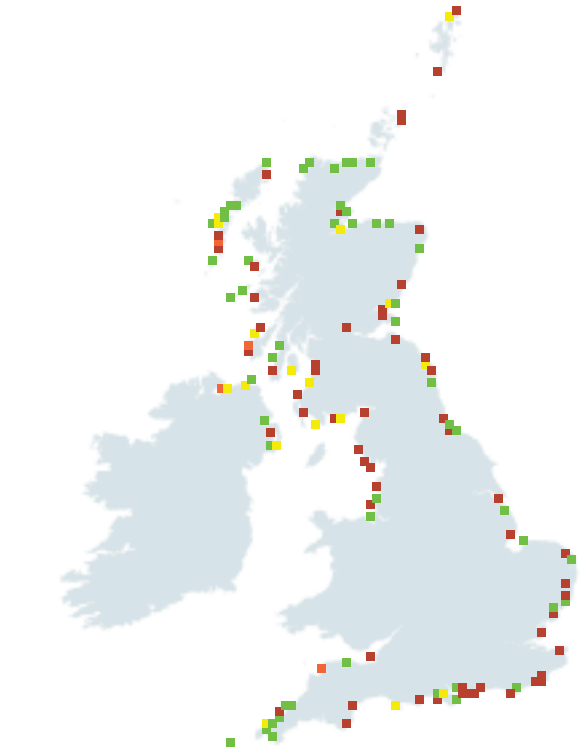


Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

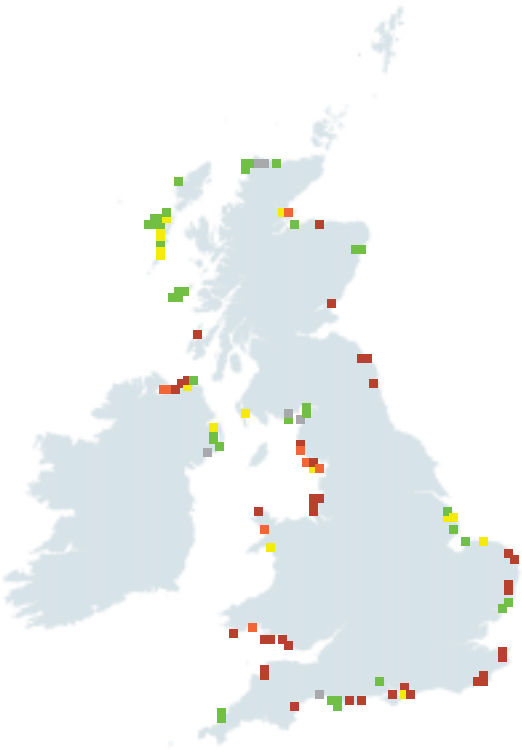
**Note: the figure for favourable condition in the pie charts is marginally different from that shown in the summary statistics table - this is a result of rounding to show small segments effectively; the figures in the summary statistics table are correct.*

SSSIs



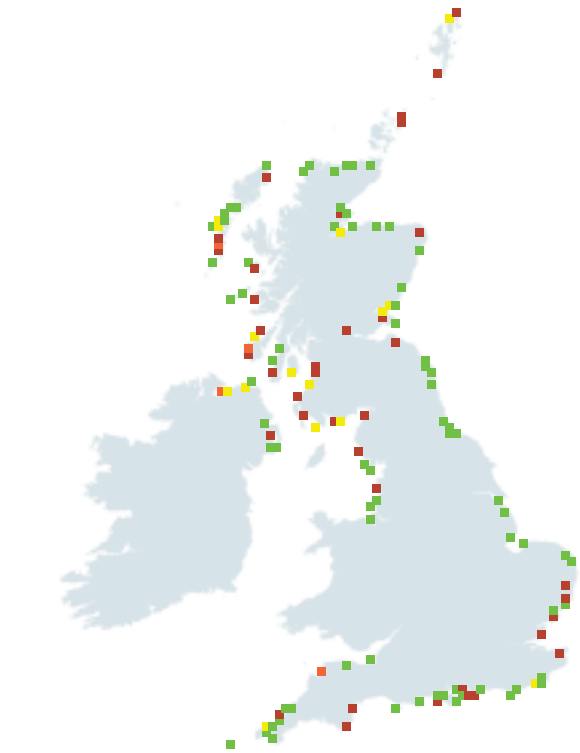
Current condition of SSSI/ASSI features

Natura 2000

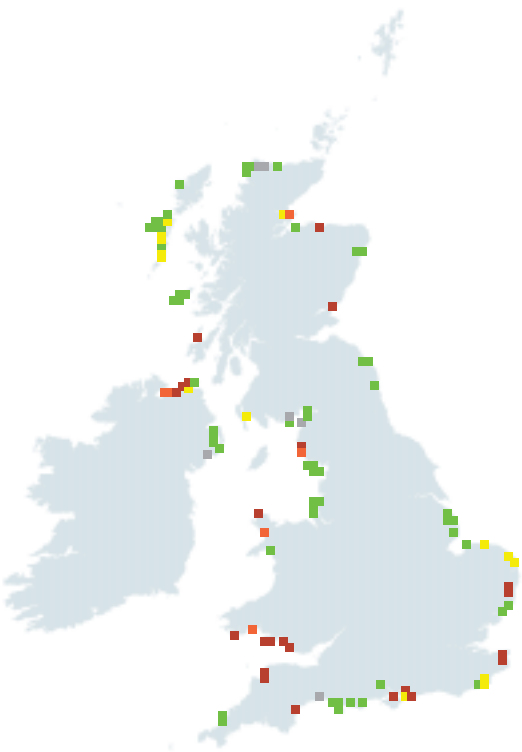


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

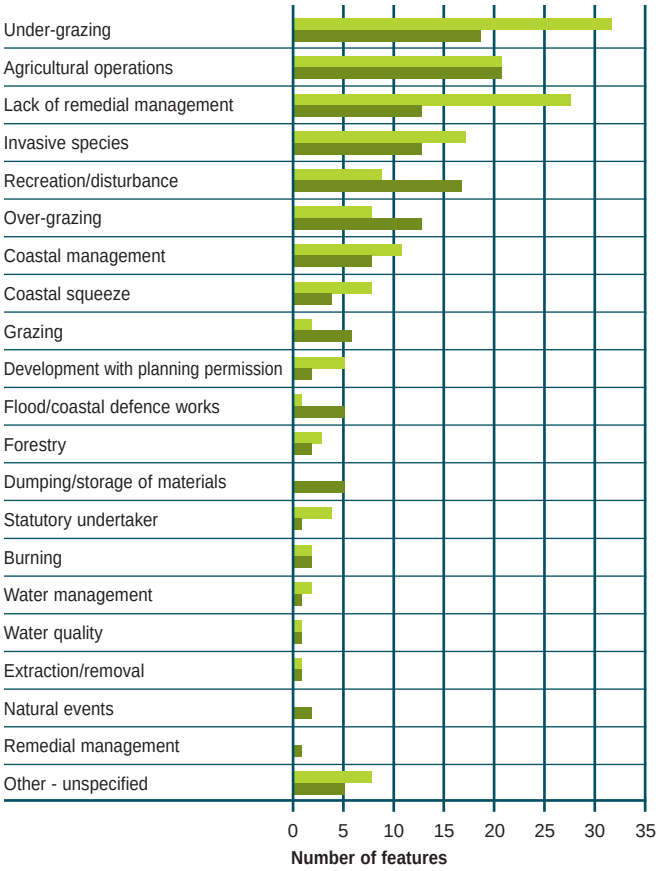
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% | 50-80% | 20-50% | 0-20% | Not assessed (Natura 2000 only)

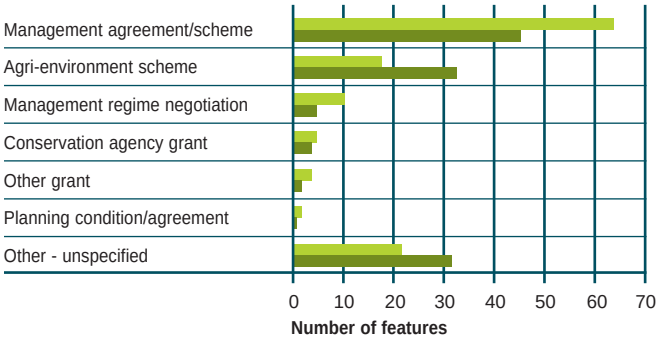
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

The main habitats of machair are dry grassland, damp grassland, marsh and standing water and the vegetation is broadly described as a herb-rich sward. Machair also supports a rich invertebrate fauna and large wader populations, for example on the Uists, Tiree and Coll. These populations of waders are considered the most important in the north-west Palaearctic.

SSSIs can be notified if they qualify under criteria outlined in Sections 5 (dunes) and 6 (shingle) of *Chapter 1 Coastlands* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

Interpretation

Overall, 49% of dune, shingle and machair features reported are in favourable condition. This is below average for marine and coastal features, and just below the average condition for all features taken together, but above the average for habitat features. 50% of A/SSSI and 46% of SAC features reported are in favourable condition. A further 13% of A/SSSI and 18% of SAC features reported are in unfavourable-recovering condition. Dune heaths in SACs are generally in poor condition. Dunes with *Salix repens*, although mostly unfavourable, are better catered for by the provision of management agreements.

Habitat management issues are the greatest cause of unfavourable condition for sand dune, shingle and machair features. Most significant of the habitat management issues is under-grazing and lack of remedial management. Lack of grazing leads to invasion by coarser grasses and scrub, and decline in quality of the habitat. Securing grazing is complicated by intrinsic difficulties of stock management on many coastal sites and issues such as the quality of grazing. Over-grazing can also be an issue. Scrub and invasive species management plans may have long lead-in times and need long time periods to deliver results.

Management plans with the owners of sites help address these issues. Agricultural grant schemes have an important role to play in this, but the figures indicate a disappointing level of application for these feature types. More work needs to be done with partners and owners to improve take-up of agri-environment schemes.

Inappropriate coastal management will affect shingle and sand dune habitats. This can include disrupted shingle movements or sand supply, which interrupts longshore drift, or moving or reprofiling shingle ridges for flood management, which disturbs the habitat developing on the surface. In these cases it will be non-conservation public bodies responsible for managing the habitat. Many of these problems can only be addressed through strategic shoreline management plans and strategies.

Rocky shores, reefs and caves

Context

Rocky shores, reefs and caves are widely distributed habitats around the UK and consist of both littoral and sublittoral rock features. This reporting category contains data for both intertidal and subtidal hard substrata features (rocky shores, reefs, caves) as well as biogenic reefs associated with soft substrates (such as *Sabellaria or Serpula* reefs).

SSSIs can be notified if they qualify under criteria outlined in the *intertidal marine habitats and saline lagoons* chapter of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

Littoral rock

The geology and wave exposure of the shore influence the form of the habitat, which can include vertical rock, shore platforms, boulder shores, or rocky reefs surrounded by areas of sediment. These two factors are also major influences on the associated marine communities. In general, littoral rock tends to be colonised by algae in wave-sheltered conditions, and by limpets, barnacles and mussels as wave-exposure increases. Relatively soft rock such as chalk and limestone can support boring species, whereas colonisation of basalt and granite is limited to the rock surfaces. In all cases there is a distinct zonation of species down the shore, which principally reflects the degree of immersion by the tide. Biogeographic differences are also apparent, with the littoral rock areas of South-west England tending to be richer in species than similar rocky habitats in the North and East.

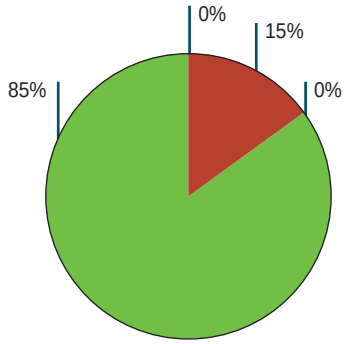
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	74%	85%	80%
Main monitoring coverage	E, S	E, S	
Reported assessments	19	27	46
Completeness of assessments	38%	unknown	
Distribution of features			UK

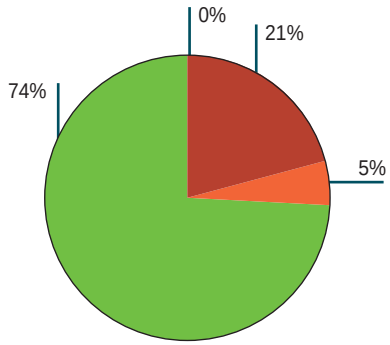
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	13	21
Scotland	6	5
Wales	0	0
Northern Ireland	0	1
United Kingdom	**19**	**27**

Condition assessment - SSSI features



Condition assessment - Natura 2000



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

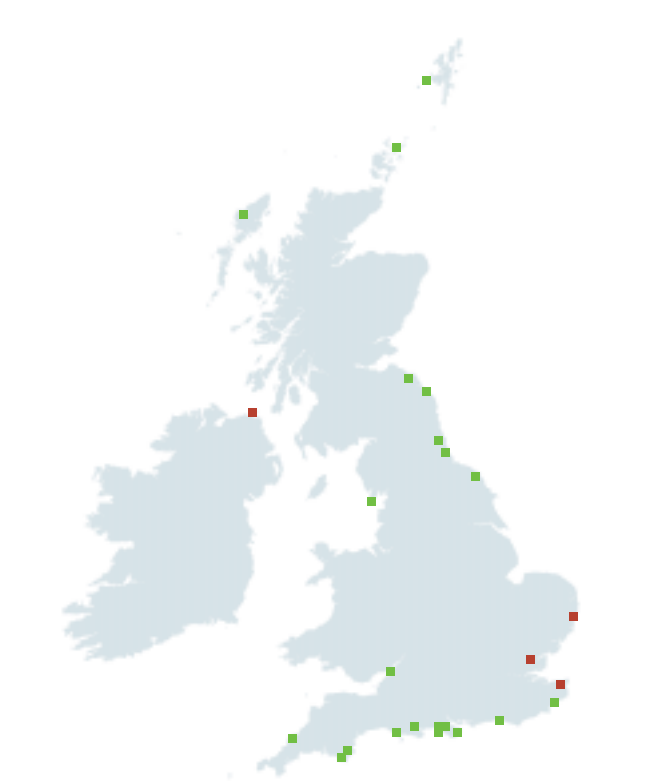
Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

Inshore sublittoral rock

The seabed of inshore areas (defined as within six nautical miles of the shoreline) is dominated by soft sediment. Where sublittoral rock habitats occur they tend to be immediately adjacent to the shore, fringing islands, headlands, open coast and rocky inlets such as rias and sea lochs. Further offshore, rocky sublittoral habitats may be present as submerged reefs, pinnacles and ledges, and are often surrounded by areas of soft sediment.

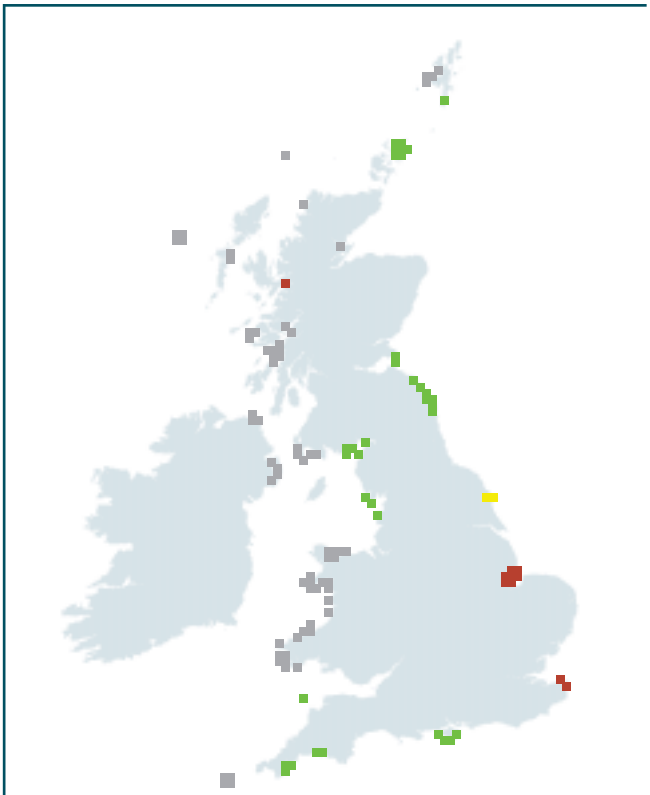
Most sublittoral rocky habitats are in areas exposed to water movement, which keeps the rock surface free of sediment. Rocky areas in sheltered situations are not as common, but do occur in Scottish sea lochs as well as the rias of South-west Britain.

SSSIs



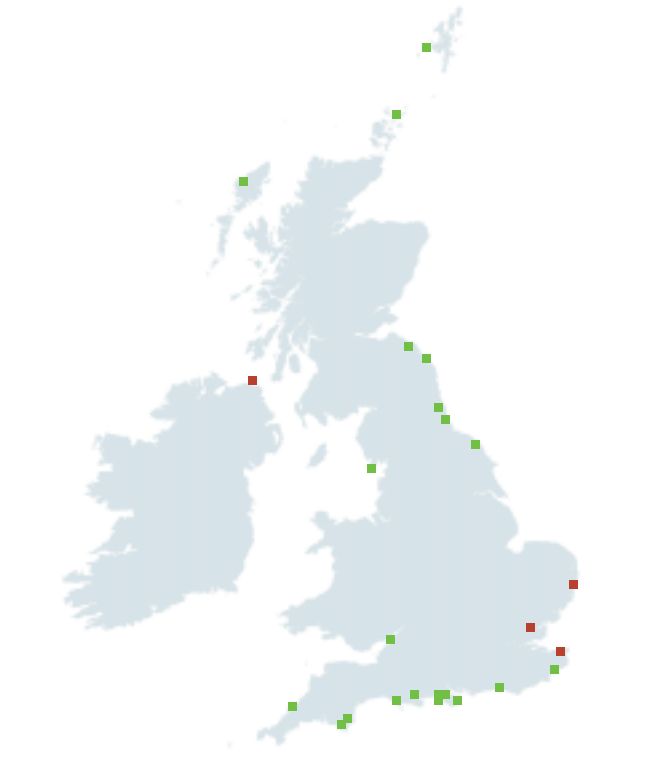
Current condition of SSSI/ASSI features

Natura 2000

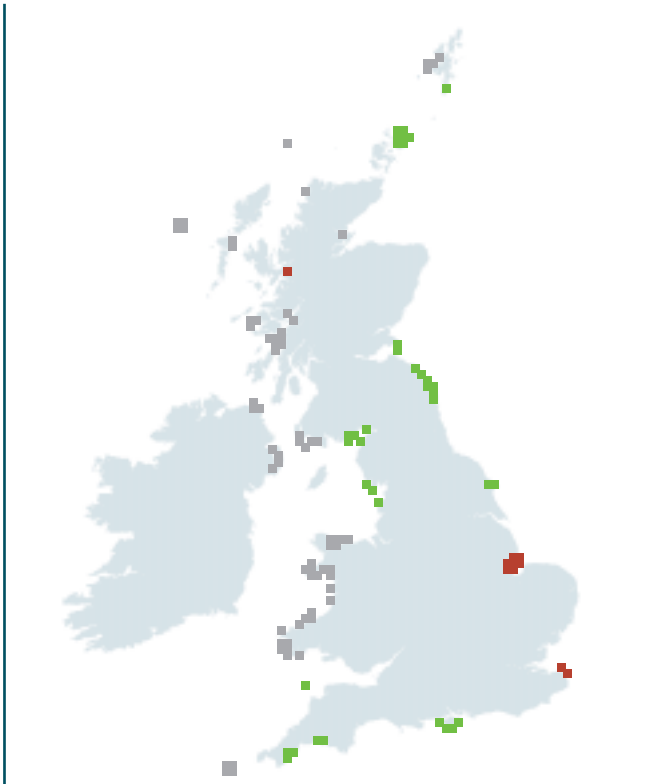


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

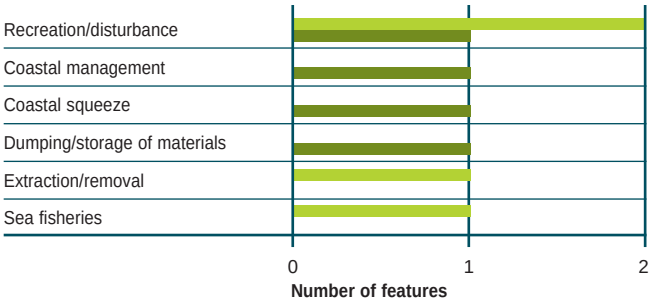
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20% Not assessed (Natura 2000 only)

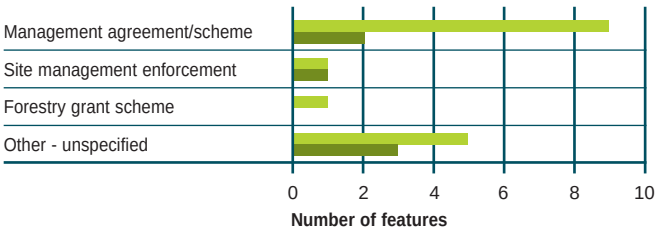
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Chalk reefs, which occur in parts of southern Britain and off the East coast, support a diversity of flora and fauna. This includes foliose red algae and small brown algae on upward facing surfaces, turfs of hydroids and bryozoans, and an abundance of sponges and animals which bore into the soft rock.

Sabellaria alveolata reefs are formed by the honeycomb worm *S. alveolata*, a polychaete which constructs tubes in tightly packed masses with a distinctive honeycomb-like appearance. Reefs are mainly found on the bottom third of the shore, but may reach mean high water of neap tides and extend into the shallow subtidal in places. They form on a variety of hard substrata, from pebbles to bedrock, in areas with a good supply of suspended sand grains from which the animals form their tubes, and include areas of sediment when an attachment has been established. The British Isles represent the northern extremity of the range in the North-east Atlantic.

Sabellaria spinulosa reefs comprise dense subtidal aggregations of this small, tube-building polychaete worm. *S. spinulosa* can act to stabilise cobble, pebble and gravel habitats, providing a consolidated habitat for epibenthic species. They provide a biogenic habitat that allows many other associated species to become established.

Interpretation

80% of rocky shore, reef and sea cave features reported are in favourable condition. This is above the average for marine and coastal features, for all habitats features and for all features combined together. Of the 20 SAC features that have been reported, 74% are in favourable condition with 5% unfavourable-recovering. 85% of A/SSSI features reported are in favourable condition.

All of the sea caves reported are in favourable condition. Five reefs are reported as being in unfavourable condition. Detrimental activities identified for reefs include coastal squeeze, extraction, sea fisheries, recreation and inappropriate management.

Intertidal sands and muds

Context

This reporting category includes littoral (intertidal) sediment habitats which are widespread around the UK, forming features such as beaches, sand banks, and intertidal mudflats. A large proportion of this habitat occurs in estuaries and inlets where it can cover extensive areas. Notable examples are the Wash, Burry Inlet, Morecambe Bay, the Solway, Moray and Cromarty Firths, and Strangford Lough. Significant but smaller areas of littoral sediment also occur at the head of inlets and sea lochs. Beaches, which tend to be composed of sandier material, develop in more exposed situations and are also widely distributed. Sand flats are more common in northern and western parts of the country and finer-grained flats are more common in southern and eastern areas. Muddy sediments usually occur in sheltered areas, especially estuaries.

The marine communities found in areas of littoral sediment vary depending on the sediment type, sediment mobility, and salinity of the overlying water. Mobile gravels and sands, for example, tend to be highly impoverished, whereas sheltered areas with mixed sediments can support very rich communities. There is also a zonation of species down the shore which principally reflects the degree of immersion by the tide. In general, tidal flats are low in species diversity, but they often support very dense populations of invertebrates. The overall biomass of the area can, therefore, be extremely high.

The high biomass of intertidal communities on mudflats can support large numbers of waders and wintering waterfowl, including substantial proportions of the total world populations of the barnacle goose *Branta leucopsis*, and brent goose *Branta bernicla*, which feed on the eelgrass beds *Zostera* spp. in the littoral fringe and shallow sublittoral areas. There are also internationally important numbers of ruddy turnstone *Arenaria interpres*, red knot *Calidris canutus* and common redshank *Tringa totanus* which feed on invertebrates when the sediment shores are exposed by the tide. Offshore intertidal sand banks around the Wash, north Norfolk coast and the sheltered shores of Orkney, are some of the locations used as haul-out sites by common seals *Phoca vitulina*.

SSSIs can be notified if they qualify under criteria outlined in the *intertidal marine habitats and saline lagoons chapter* and Section 10 of *Chapter 1 Coastlands* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

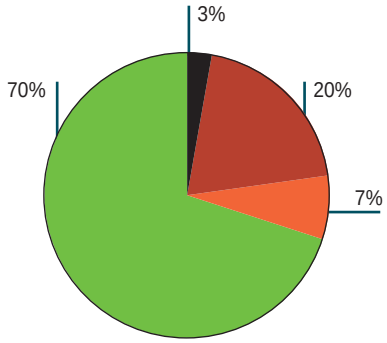
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	63%	70%	69%
Main monitoring coverage	E, S	E	
Reported assessments	16	132	148
Completeness of assessments	55%	unknown	
Distribution of features			UK

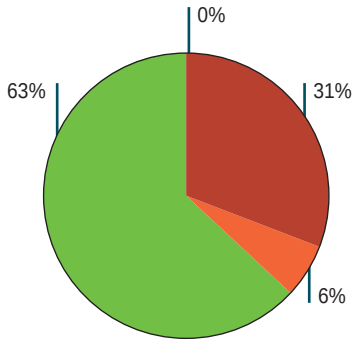
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	12	122
Scotland	4	9
Wales	0	0
Northern Ireland	0	1
United Kingdom	**16**	**132**

Condition assessment - SSSI features



Condition assessment - Natura 2000



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

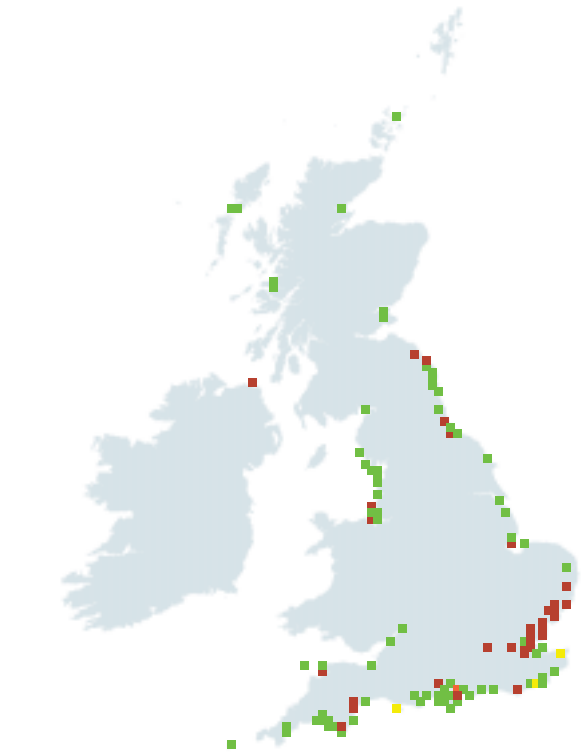
Favourable

Unfavourable-recovering

Unfavourable

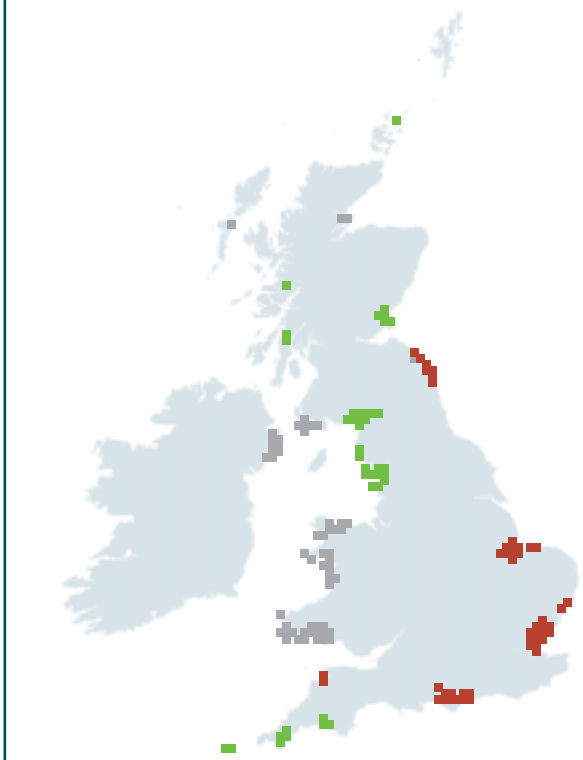
Destroyed (whole or part)

SSSIs



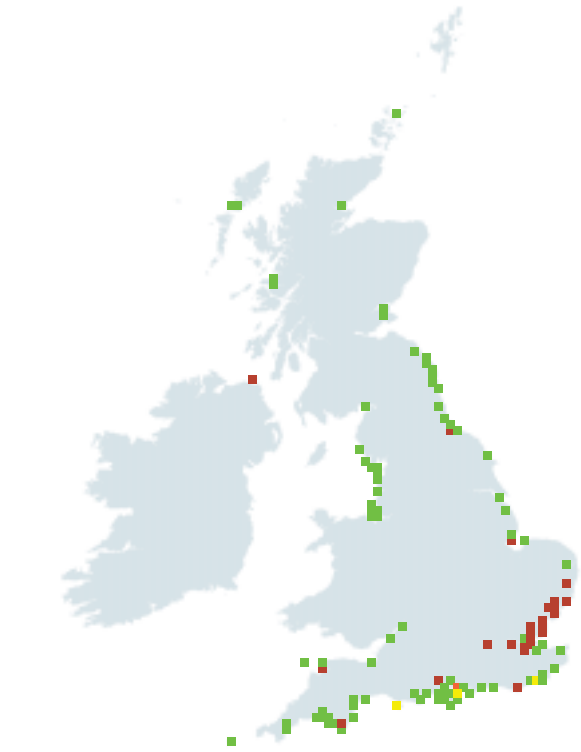
Current condition of SSSI/ASSI features

Natura 2000

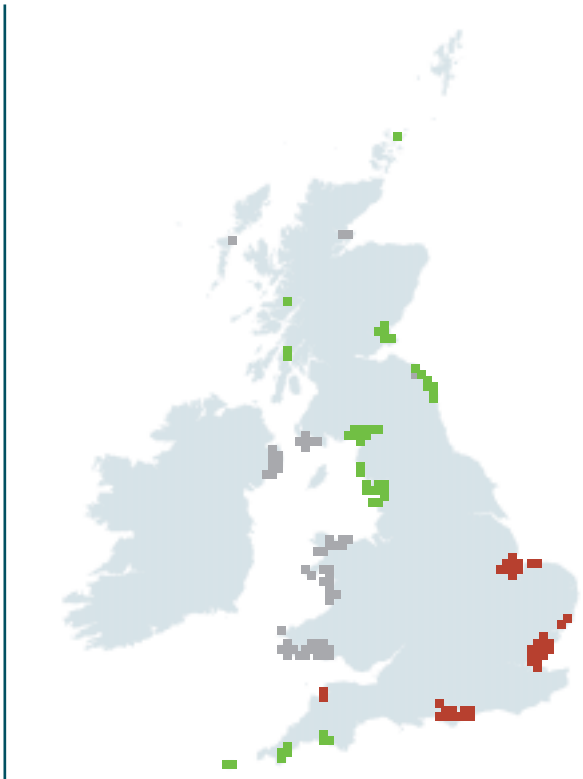


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

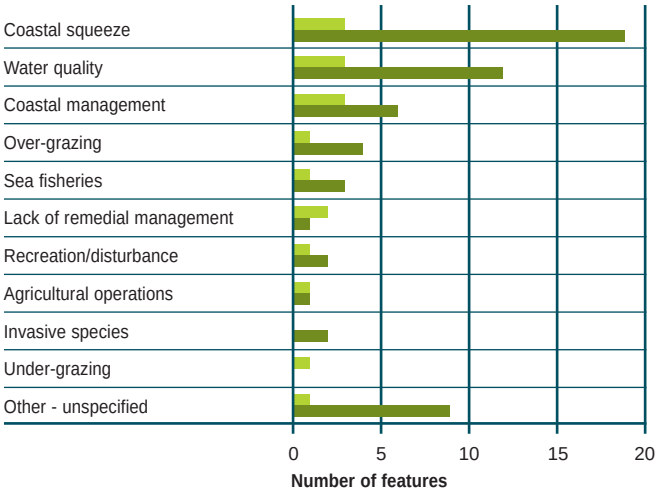
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% | 50-80% | 20-50% | 0-20% | Not assessed (Natura 2000 only)

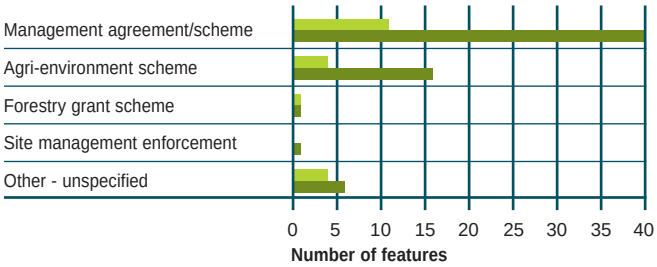
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

69% of intertidal sand and mud features reported are in favourable condition. This is above average for marine and coastal features, for all habitat features, and for all features considered together. 70% of the A/SSSI features reported are in favourable condition and 7% are unfavourable-recovering. 63% of the SAC features reported are in favourable condition with 6% unfavourable-recovering. The sole eelgrass feature that has been reported is in favourable condition.

Detrimental activities identified for features in unfavourable condition include lack of remedial management, coastal squeeze, inappropriate management, sea fisheries, over- and under-grazing and water quality problems. Water quality also affects the habitat in the intertidal zone.

Pollution arises from point sources, such as sewage treatment outfalls, or diffuse sources such as agricultural run-off. This is in part being addressed through a review of consents for discharges being carried out and for plans to increase tertiary treatment in waste water treatment plants. Recent work indicates water quality may be more important for the condition of mudflats than hitherto recognised, and links between condition assessments and water quality issues needs to be strengthened.

Coastal squeeze occurs when sea defences prevent vegetation migrating landwards in response to sea-level rise. The result is a loss of shoreline habitats. Coastal squeeze is being addressed in England through shoreline management plans, estuary strategies and through other mechanisms such as high level biodiversity targets within the Environment Agency. However, much of this has a long lead-in time and outcomes will be constrained by strategic considerations outwith the control of the country conservation agencies.

Lagoons

Context

Lagoons in the UK are essentially bodies of saline water partially separated from the adjacent sea. They may be natural or artificial. Lagoons retain a proportion of their seawater at low tide and may develop as brackish, fully saline or hyper-saline water bodies. The largest saline lagoon in the UK is in excess of 800ha (Loch of Stenness) although the rest are much smaller and some are less than 1ha. Lagoons can contain a variety of substrata, often soft sediments which in turn may support tasselweeds and stoneworts as well as filamentous green and brown algae. In addition lagoons contain invertebrates rarely found elsewhere. They also provide important habitat for waterfowl, marshland birds and seabirds. The flora and invertebrate fauna present can be divided into three main components: those that are essentially freshwater in origin, those that are marine/brackish species and those that are more specialist lagoonal species. The presence of certain specialist plants and animals make this habitat important to the UK's overall biodiversity.

There are several different types of lagoons, ranging from those separated from the adjacent sea by a barrier of sand or shingle (typical lagoons), to those arising as ponded waters in depressions on soft sedimentary shores, to those separated by a rocky sill or artificial construction such as a sea wall. Sea water exchange in lagoons occurs through a natural or man-modified channel or by percolation through, or overtopping of, the barrier. The salinity of the systems is determined by various levels of freshwater input from ground or surface waters. The degree of separation and the nature of the material separating the lagoon from the sea are the basis for distinguishing several different physiographic types of lagoon.

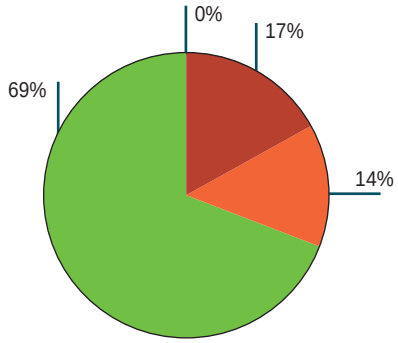
Summary statistics

	SAC	SSSI/ASSI	Total
Favourable condition	64%	69%	68%
Main monitoring coverage	E, S	E, S	
Reported assessments	11	36	47
Completeness of assessments	58%	unknown	
Distribution of features			UK

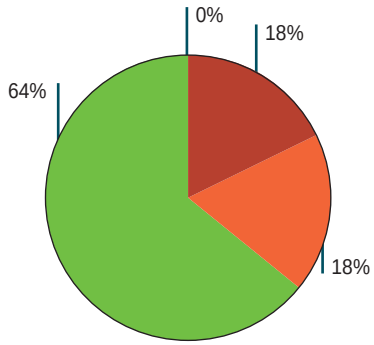
Number of assessments reported by country and site type

Country	SAC	SSSI/ASSI
England	8	30
Scotland	3	6
Wales	0	0
Northern Ireland	0	0
United Kingdom	**11**	**36**

Condition assessment - SSSI features



Condition assessment - Natura 2000



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

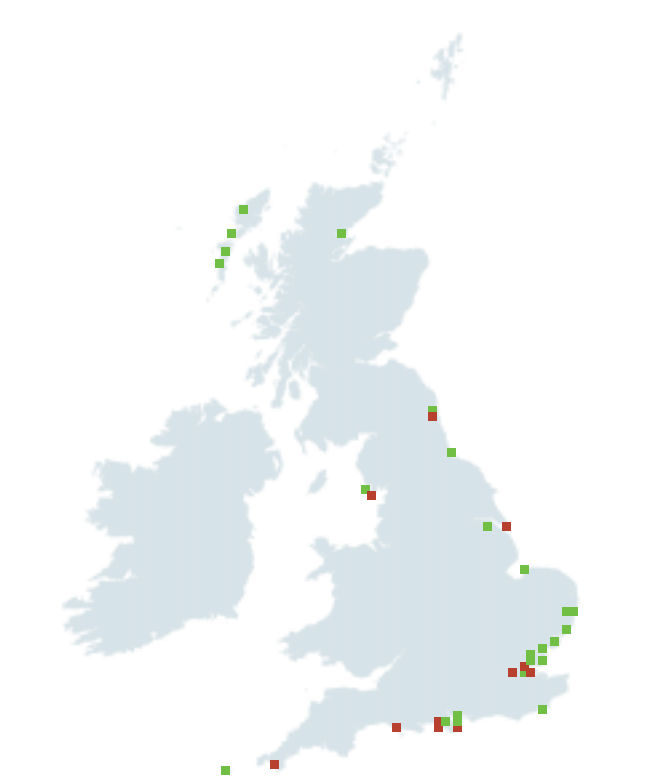
Key:

Favourable | Unfavourable-recovering | Unfavourable | Destroyed (whole or part)

SSSIs can be notified if they qualify under criteria outlined in the *intertidal marine habitats and saline lagoons* chapter and Section 9 of *Chapter 1 Coastlands* of the *Guidelines for Selection of Biological SSSIs*. In Northern Ireland, ASSIs are selected on a very similar basis - the *Guidelines for the Selection of Biological ASSIs in Northern Ireland* is an addendum to the SSSI guidelines rather than an alternative.

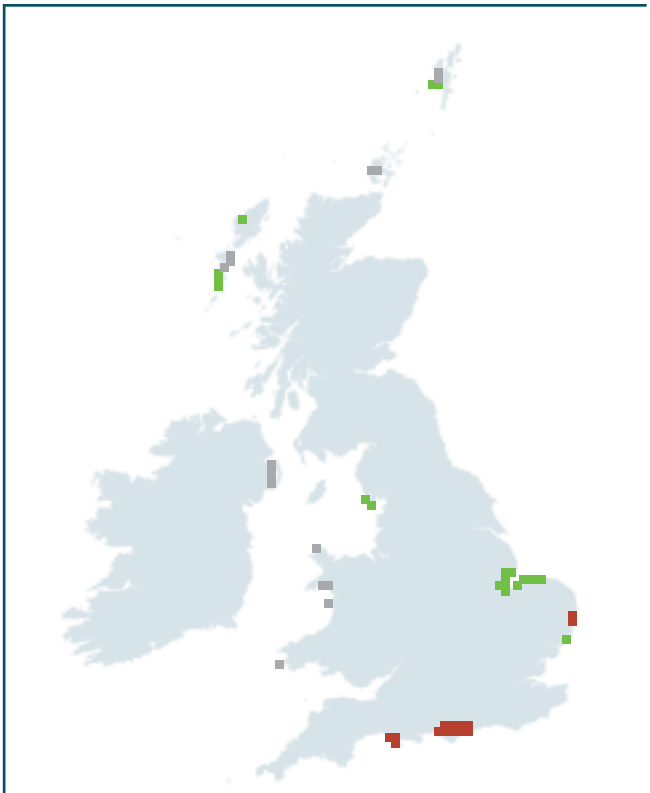
Although they can be of conservation value, and are eligible for designation as SSSIs, artificial lagoons are excluded from SAC selection.

SSSIs



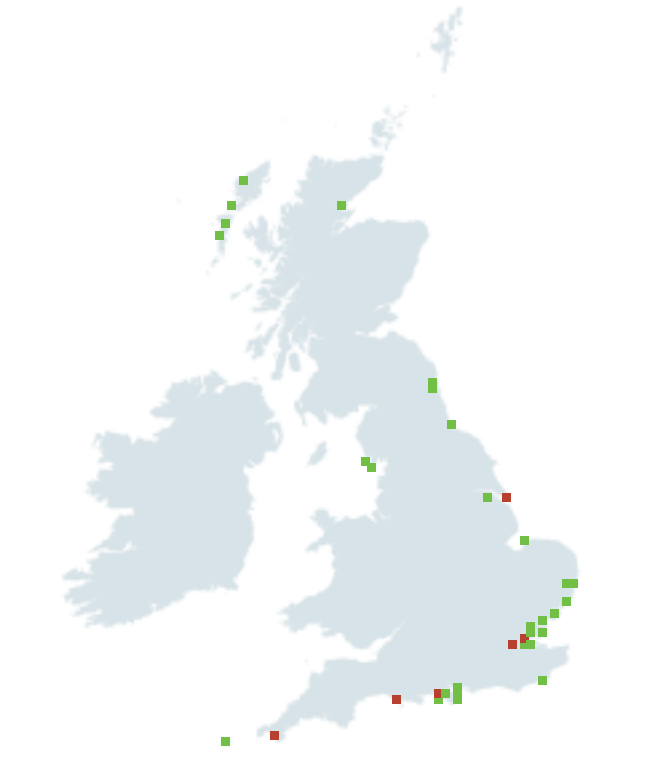
Current condition of SSSI/ASSI features

Natura 2000

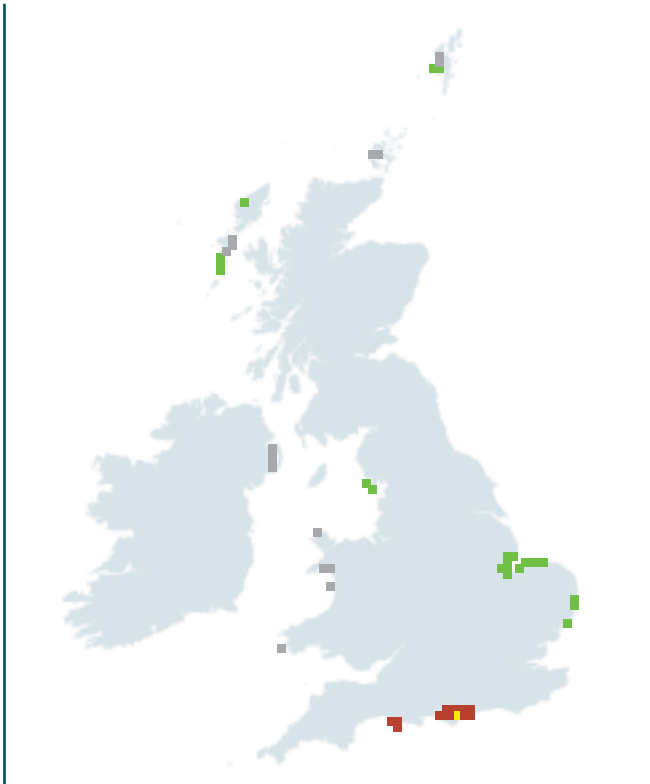


Current condition of SAC features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

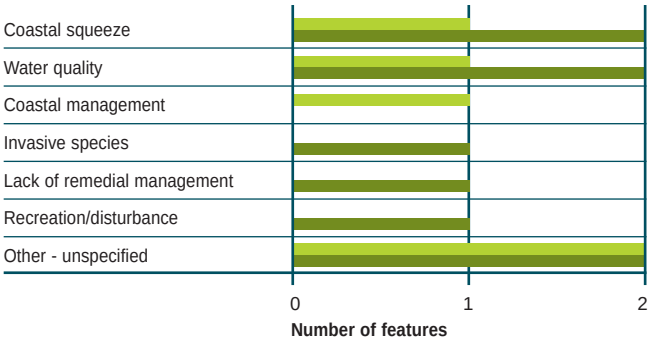
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. These maps show the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100%	50-80%	20-50%	0-20%	Not assessed (Natura 2000 only)

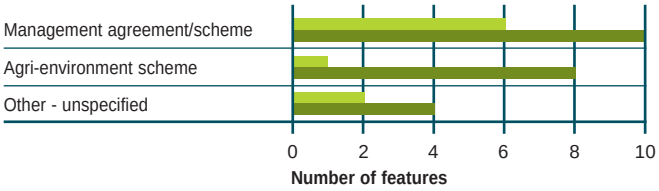
Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

SSSI features

Interpretation

82% of the lagoon features have been reported; 68% of them are in favourable condition. This is above average for marine and coastal features, for all habitat features, and for all features considered together. 69% of the A/SSSI features reported are in favourable condition with 14% unfavourable-recovering. 64% of the SAC features reported are in favourable condition with 18% unfavourable-recovering.

Water quality, coastal squeeze and coastal management were all listed as factors influencing the condition of lagoon features. All of the features reported in unfavourable condition (either declining or recovering) have management in place.

Subtidal sandbanks

Context

Subtidal sandbanks which are slightly covered by sea water all the time consist of sandy sediments that are permanently covered by shallow sea water, typically at depths of less than 20m below chart datum (but sometimes including channels or other areas greater than 20m deep). The habitat comprises distinct banks (i.e. elongated, rounded or irregular 'mound' shapes) which may arise from horizontal or sloping plains of sandy sediment. Where the areas of horizontal or sloping sandy habitat are closely associated with the banks, they are included within the habitat.

The diversity and types of community associated with this habitat are determined particularly by sediment type together with a variety of other physical, chemical and hydrographic factors. These include geographical location (which influences water temperature), the relative exposure of the coast (from wave-exposed open coasts to tide-swept coasts or sheltered inlets and estuaries), the topographical structure of the habitat, and differences in the depth, turbidity and salinity of the surrounding water. Within the UK's inshore waters sandbanks which are slightly covered by sea water all the time can be categorised into four main sub-types:

i. gravelly and clean sands;
ii. muddy sands;
iii. eelgrass *Zostera marina* beds;
iv. maerl beds (composed of free-living *Corallinaceae*).

The latter two sub-types are particularly distinctive and are of high conservation value because of the diversity of species they may support and their general scarcity in UK waters.

'Sandbanks which are slightly covered by sea water all the time' is a habitat listed on Annex I of the EC Habitats Directive, qualifying as a feature for the selection of a Special Area of Conservation (SACs).

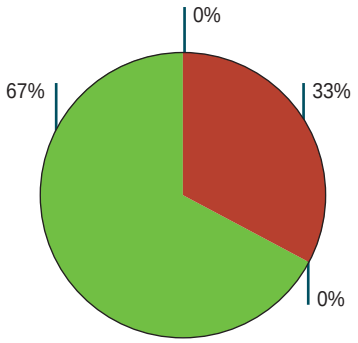
Summary statistics

	SAC	Total
Favourable condition	67%	67%
Main monitoring coverage	E, S	
Reported assessments	9	9
Completeness of assessments	39%	
Distribution of features		UK

Number of assessments reported by country and site type

Country	SAC
England	5
Scotland	4
Wales	0
Northern Ireland	0
United Kingdom	**9**

Condition assessment - Natura 2000



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:

Favourable

Unfavourable-recovering

Unfavourable

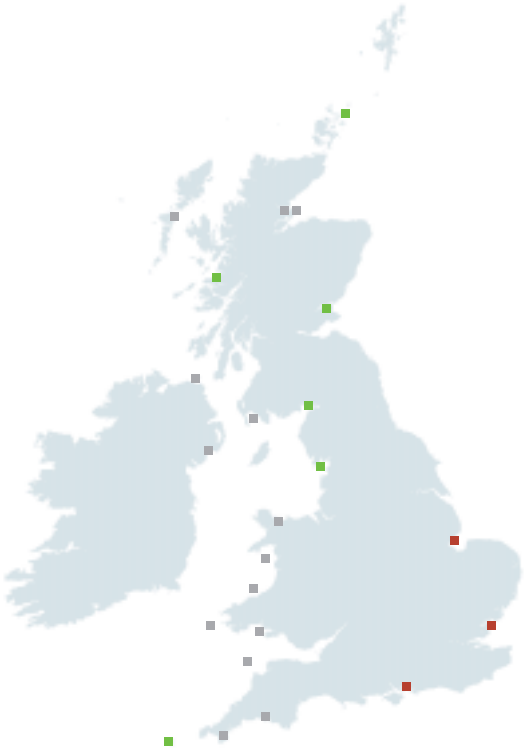
Destroyed (whole or part)

Interpretation

10 of the 23 SAC subtidal sandbank features have been reported; 67% are in favourable condition. This is just above the average for marine and coastal features, and well above the averages for all habitat features and all features combined.

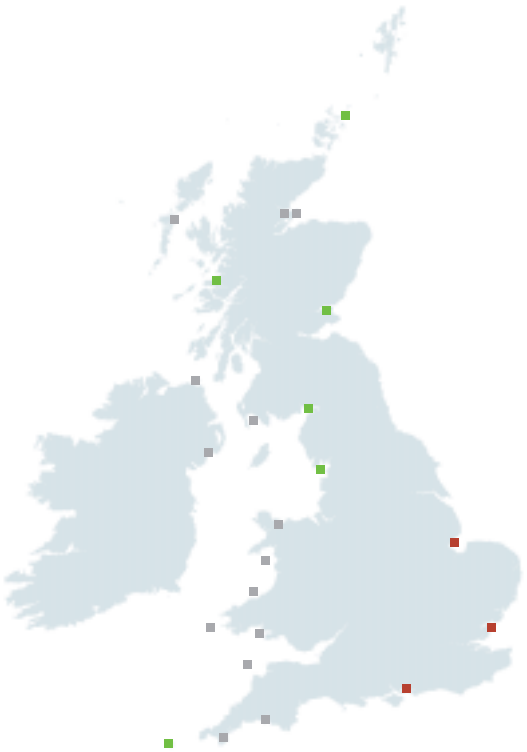
For the three features reported as unfavourable-declining, detrimental activities identified include coastal squeeze, sea fisheries, recreation/disturbance, and water quality issues. Management is in place for one of these features.

Natura 2000



Current condition of SAC features

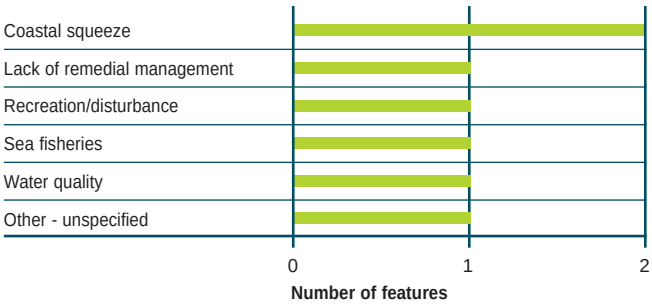
Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SAC features, with those currently reported as unfavourable-recovering shown as 'favourable'

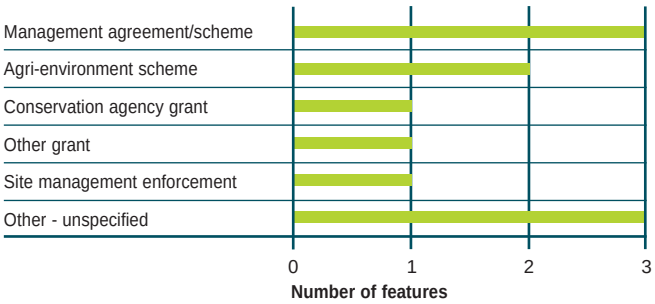
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. This map shows the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

Natura 2000 features

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Key: Proportion of assessed features on 10km squares that are favourable:

80-100% 50-80% 20-50% 0-20% Not assessed (Natura 2000 only)

Data Preparation

Common Standards Monitoring was piloted in 1998 and implementation commenced in April 1999. This report is based on data for the period April 1998 - March 2005. The data were provided by the country agencies to JNCC in July and August 2005, using a standard proforma.

JNCC collated these four sets of data (one each for England, Scotland, Northern Ireland, and Wales) into a UK wide database of condition assessments for features on SSSIs (ASSIs in Northern Ireland), SACs, SPAs and Ramsar sites. The database contains a row for each feature reported on each designated site. A feature on a double-badged site (e.g. a site designated both as a SSSI *and* as a SAC) is recorded as two rows in the database - one row for each designation type. Any reader wishing access to the raw data on which this report is based should make their request to the relevant country agency monitoring contact (see www.jncc.gov.uk/page-3592 for details).

Data were split into 44 reporting categories based on Biodiversity Action Plan broad habitats, taxonomic groups, and broad divisions of earth science. Every assessment was assigned to a single reporting category. JNCC developed standard graphs, maps, and tabulations for each reporting category. For SACs and SPAs, JNCC are able to collate lists of qualifying features that have not yet been assessed. This cannot be done for SSSIs because there is not yet a UK-wide list of notified interest features.

In addition to the condition assessments, data were also collated on 'adverse activities' and 'management measures'. 'Adverse activities' are those factors which are thought to be leading the feature into unfavourable condition. 'Management measures' are the actions which are helping to maintain favourable condition, or return a feature from unfavourable to favourable condition. More than one activity or measure can be recorded for each assessment of the condition of a feature.

To facilitate map display on the website and hard copy report, it was decided to display the spatial locations of the assessments on a 10km square basis. For each and every monitoring assessment a 10km square is calculated based on the site centroid.

The condition maps use this 10km square to group all of the condition assessments within a reporting category - for example, ten different assessments are reported for lowland calcareous grassland on SSSIs within grid square ST45. As only one of these ten, i.e. 10%, is currently favourable, this square is coloured red on the 'current' SSSI condition map for lowland calcareous grassland. The 'future' map shows this square as green. This is because seven of the ten features are currently 'unfavourable-recovering'. Assuming that recovery is achieved for these seven features, at a point in the forseeable future, eight out of ten, i.e. 80%, of the lowland calcareous grassland features within square ST45 will be favourable. Note that no prediction is made on the timescale for recovery for any feature.

For large SACs (i.e. those falling into more than one 10km squares), condition assessments have been allocated to all the 10km square which, to the best of our knowledge, host the feature. This has been possible because for SACs there are 10km square distribution maps for each interest feature. JNCC do not hold equivalent spatial data for SPA, Ramsar or SSSI sites and have, therefore, only been able to use the site centroid to locate the interest features on these site types.

JOINT NATURE CONSERVATION COMMITTEE

Habitats

The Joint Nature Conservation Committee (JNCC) is the forum through which the three country nature conservation agencies - English Nature, Scottish Natural Heritage (SNH), and the Countryside Council for Wales (CCW) - deliver their statutory responsibilities for Great Britain as a whole and internationally. The Committee consists of representatives of these agencies, as well as the Countryside Agency, independent members, and non-voting members appointed by the Department of the Environment, Northern Ireland.

JNCC's statutory responsibilities, known as the special functions, contribute to maintaining and enriching biological diversity, enhancing geological features and sustaining natural systems.

The special functions are principally to:

- advise ministers on the development of policies for, or affecting, nature conservation in Great Britain and internationally;
- provide advice and knowledge to anyone on nature conservation issues affecting Great Britain and internationally;
- establish common standards throughout Great Britain for the monitoring of nature conservation and for research into nature conservation and the analysis of results;
- commission or support research which the Committee deems relevant to the special functions.

Increasingly, JNCC is implementing its national advisory functions on a United Kingdom basis, and is working closely with the Environment and Heritage Service, Northern Ireland. JNCC was established under statute by the Environmental Protection Act 1990 and commenced its work in April 1991. In 2005, its support unit became a company limited by guarantee, allowing the organisation to, amongst other benefits, employ its own staff and let its own contracts.

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Cover printed on Scimitar Silkweave, produced with paper fibre sourced from sustainable forests, Totally Chlorine Free. Inner pages printed on Evolution Satin, 75% recycled post-consumer waste paper, Elemental Chlorine Free. Designed and printed by www.statusdesign.co.uk, 1.25M

ISBN-13 978 1 86107 582 6
ISBN-10 1 86107 582 0

Cyngor Cefn Gwlad Cymru
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ENGLISH NATURE

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