

The Proportion of Scotland's Protected Sites in Favourable Condition 2017

An Official Statistics Publication for Scotland

Scotland has a rich and important diversity of biological and geological natural features. Many of these species populations, habitats and earth science features are nationally and/or internationally important and are represented in a series of nature conservation designations:

- National: Site of Special Scientific Interest (SSSI);
- European: Special Area of Conservation (SAC) and Special Protection Area (SPA); and
- International: Ramsar

These sites seek to protect the best examples of these features. There are a total of 1,866 protected sites in Scotland, although some of their boundaries overlap, which host a total of 5,368 designated natural features.

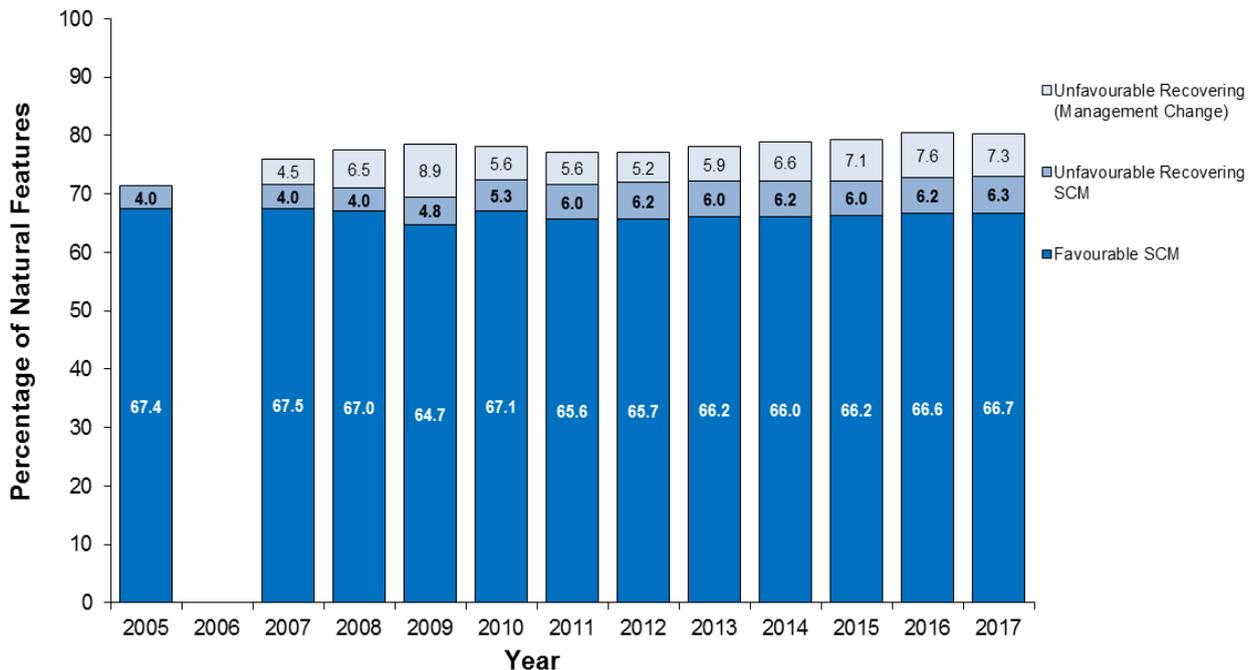
Evidence

The condition of features on designated sites in Scotland is assessed by Scottish Natural Heritage's (SNH) Site Condition Monitoring (SCM) programme (see <http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/site-condition-monitoring/>).

SCM is a rolling programme of monitoring which aims to assess the condition of a sample of designated natural features each year and acts as a trigger mechanism for follow-up work when an unfavourable assessment is concluded.

Figure 1 indicates how the proportion of features in favourable condition has changed since the baseline was established in 2005. Remedial management measures are put in to place for unfavourable natural features, and in 2007 the current protocols were established to track their progress. The figures presented are the latest assessment for all those features which have been assessed by 31st March of the relevant year.

Figure 1: The Proportion of Features in Favourable Condition¹ at 31st March 2017²



Assessment

- The proportion of natural features in favourable condition on protected sites at 31st March 2017 was 80.3%. This figure comprises:
 - SCM Condition Assessment - Favourable 66.7%

¹ For definitions of condition categories see 'Source data and updates' section

² Assessments were not undertaken in 2006

- SCM Condition Assessment - Unfavourable Recovering 6.3%
- Unfavourable Recovering Due to Management Change 7.3%
- The proportion of features in favourable condition has decreased by 0.1 percentage points in the last year from 80.4% to 80.3%.
- The proportion of features in favourable condition has increased by 8.9 percentage points between 2005 and 2017 from 71.4% to 80.3% and 4.3 percentage points between 2007 and 2017.

Change (2016 – 17)	Stable
Long term trend (2005 - 17)	Increase

Commentary

As SCM is a rolling programme of monitoring, the proportion of features in favourable condition changes frequently. This movement reflects new condition assessments being completed, and unfavourable features benefitting from remedial management so that they are considered to be 'unfavourable recovering due to management change' (URDTM). The figures presented here are, therefore, a snapshot of the position at 31st March in the given year.

By 31st March 2017, of the 5,368 features hosted on designated sites, the condition of 5,295 have been assessed to date and thus form the Official Statistic. As new SCM assessments are completed (either first or repeat assessments), they are used to update the proportion of features in favourable condition.

There is considerable variation in the proportion of features in favourable condition across the different natural feature types, as can be seen in Table 1. A detailed breakdown of the proportion of individual feature types in favourable condition can be seen in Annex 1.

Table 1: Proportion of Natural Features in Favourable Condition by Feature Type at 31st March 2017

Feature Category	Number of Features	Proportion Favourable	Number of Features	Proportion Favourable	Change in percentage points from 2016 to 2017
	2016		2017		
Habitats	2435	79.4%	2440	79.3%	-0.1
Species	2188	76.3%	2195	76.1%	-0.2
Earth sciences*	648	98.1%	660	98.0%	-0.1
All Feature Types	5271	80.4%	5295	80.3%	-0.1

* Earth sciences includes geological outcrops and landforms, fossil beds and caves

During 2016-17, the condition of 91 features improved to favourable or recovering condition (see Table 2), of which 69 features had a positive influence on the proportion of features in favourable condition. These are made up of:

- 28 features which have moved from unfavourable to URDTM. There are now 387 natural features considered to be URDTM. The majority of these improvements relate to the work with land managers to address negative pressures on wetlands (5), woodlands (4), heath (4), grasslands (3), coastal (3), vascular plants (3) and bird (3) categories.
- 41 features, which were previously in unfavourable condition, were assessed as favourable

through new SCM assessment. Birds formed the single largest category with 22 features.

- 22 features which were previously URDTM but have now been assessed as favourable through new SCM assessment. These have had no impact on the headline Proportion of Features in Favourable Condition as both categories are considered to be in favourable condition for this purpose. However, they demonstrate that the remedial management at these sites have worked and the condition has improved. Upland (6), wetlands (4) and grasslands (4) categories were the largest contributors to this change.

A further 24 features were assessed for the first time and were found to be in favourable condition. Earth sciences made up half of the total with 12 features.

During the same period, the condition of 79 natural features deteriorated to unfavourable condition (see Table 2). These are made up of:

- 62 features which were previously in favourable condition, but were assessed as unfavourable through new SCM assessment. The majority of these declining features are birds (40).
- 17 features which were previously in URDTM, but it was concluded that the remedial management in place was not sufficient to address all the negative pressures and move the natural feature into favourable condition. The majority of these are made up of grasslands (7), heath (3), upland (2) and woodlands (2) categories.

A further two natural features were assessed for the first time and found to be in unfavourable condition.

The net effect is a 0.1 percentage point decrease in the proportion of natural features in favourable condition during the last year from 80.4% to 80.3%.

Table 2: The change in condition of features between 31st March 2016 and 31st March 2017

Condition 31 st March 2016	Condition 31 st March 2017			Total
	Favourable ¹	URDTM	Unfavourable	
Favourable ¹	3778	0	62	3840
URDTM	22	359	17	398
Unfavourable	41	28	962	1031
Not assessed / not notified	24	0	2	26
Total	3865	387	1043	5295
Improvement				
Deterioration				

¹ Also includes those assessed in unfavourable recovering condition.

No On-Site Remedy

Amongst the unfavourable natural features there is a group where there are no pressures on the protected area itself, or nearby, and yet the feature remains unfavourable. There are, therefore, factors out with local management control which are influencing condition. The majority of the 369 natural features which fall into this category are sea bird populations (224), where the reasons for declining populations are thought to be due to changes in prey distribution and abundance rather than issues within the protected area itself. These changes in the distribution and abundance of prey are likely to be brought about by a combination of factors, including climate change and interactions with fisheries. There is no immediate action that can be taken to relieve these wider pressures and conditions on the protected area are appropriate to support the feature. Consequently, these features are considered favourable for the separate purpose of Biodiversity reporting (to align with United Kingdom Biodiversity Action Plan reporting). Working on this basis, the overall proportion of natural features in favourable condition rises from 80.3% to 87.3%.

Negative Influences

The most common negative influences (known as Pressures) on natural features on protected sites that can affect condition can be seen in Figure 2. Individual natural features on a site may be adversely affected by one or more pressures.

The proportion of assessments recording invasive species as a negative pressure forms the single biggest negative impact on feature condition. The proportion has increased to 20.5% of all pressures in 2016/17 from 20.0% in 2015/16.

The species can be both native (e.g. bracken) and non-native (e.g. Rhododendron) species. Different feature types appear to be affected by different types of invasive species. For example, woodland and freshwater habitats are mainly adversely affected by non-native species such as Rhododendron or Japanese knotweed. Conversely, lowland grassland and coastal habitats are affected by the spread of invasive native species such as gorse, bracken and nettles.

Whether native or non-native, invasive species can have a detrimental effect on important habitats and the flora and fauna they support by competing for nutrients and light and ultimately changing the ecology of the habitat.

Figure 2 shows that the second largest negative pressure on natural features is overgrazing, which is down slightly to 18.0% of all pressures in 2016/17 from 18.4% in 2015/16. This can be by wild herbivores such as deer, feral goats or rabbits; or farm stock; or a combination of both wild and domestic grazers. Insufficient grazing to maintain the balance of species in the habitat has also been frequently identified. Delivering remedial management on protected areas where over- or under-grazing is an issue can often be complex, particularly where the issue involves the management of wild deer herds, which regularly move across ownerships depending on the season, weather conditions and forage availability.

Climate change remains a small but growing negative pressure on natural features on protected areas. In 2016/17 there were 39 natural features with climate change recorded as a negative pressure. This is an increase from 23 in 2015/16 (a 69.6% increase), but it is difficult to determine from the SCM results whether this increase is due to an increase effect of climate change or a better awareness of its effects through the features which have been monitored during 2016/17. As outlined in the No On-site Remedy section, several of these natural features are seabirds, but others include habitats/earth science and species reliant on river processes (e.g. geomorphology features or freshwater pearl mussel populations) where there are concerns that large flood events are becoming more frequent and intense and changing the ecology in the rivers concerned.

Source data and updates

To measure progress towards the Scottish Government target of maintaining the proportion of natural features in favourable condition, the following are taken into account:

- the results of SCM,
- actions that have been taken to put in place remedial management to improve the condition of the feature.

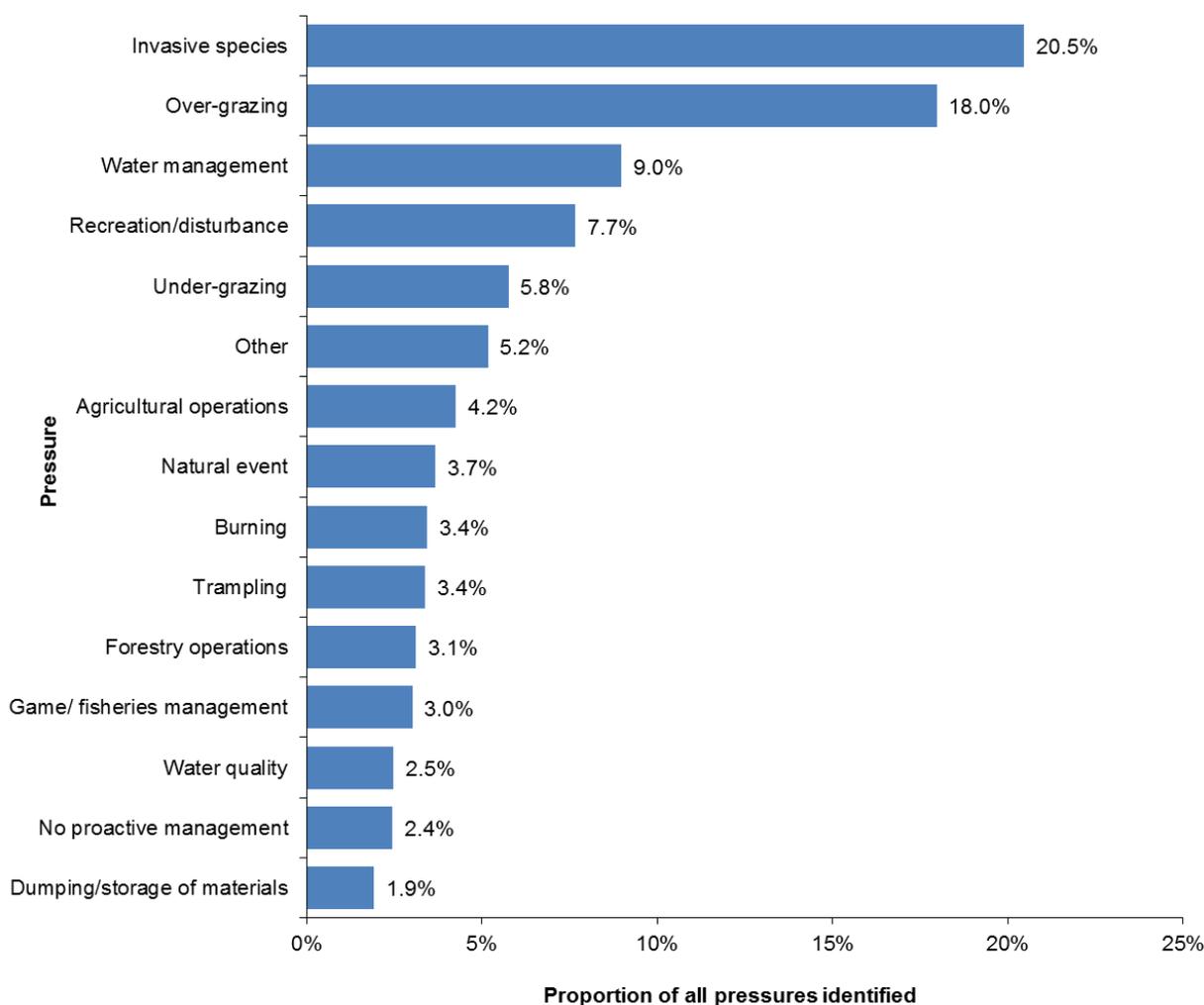
Where remedial management can be put in place on, or near the site, SNH staff and partner organisations engage with land managers and statutory bodies to identify and implement the appropriate measures to promote recovery. Such measures to date have included Rural Stewardship Schemes, Scottish Forestry Grant Schemes, Natural Care Schemes, individual management agreements negotiated by SNH and Scotland Rural Development Programme (SRDP) funding. Voluntary Control Agreements under the Deer (Scotland) Act 1996 have also been widely used to facilitate recovery of unfavourable features in upland areas.

For the purposes of the Official Statistic, 'favourable condition' includes natural features that are assessed through SCM as being in favourable or unfavourable recovering condition. It also includes previously unfavourable features where necessary management measures have been put in place since the last SCM assessment, so that in SNH's expert judgment the natural

feature will in due course reach favourable condition. This means that, as an interim measure, natural features where remedial management has been put in place to address all the known causes of unfavourable condition are counted as favourable. This is until such time as a subsequent SCM assessment verifies the condition, or identifies further work which may be required to further improve condition. Such natural features are categorised as ‘unfavourable recovering due to management change’. Where a feature has been partially destroyed (e.g. through a housing development) the rest of the feature is assessed in its own right.

Figure 2: Summary of the main negative pressures on natural features on protected sites

Data correct as of 31st March 2017. Pressures are recorded for all natural features assessed in all conditions.



The 2005 SCM results set the baseline against which progress being made under the Protected Areas National Performance Indicator is measured.

The framework for making a SCM assessment is the Common Standards Monitoring Guidance¹, published by Joint Nature Conservation Committee (JNCC). This Guidance provides a common approach to the monitoring of natural features across the whole of the United Kingdom.

The SCM condition assessments are stored on a corporate database held by SNH and are combined with data on remedial management through the Remedies database to produce the overall Condition Target results. Condition data for individual sites/features can be accessed at SNHi².

The proportion of protected sites in favourable condition will next be updated in May 2018. Official Statistics are produced in accordance with the Code of Practice for Official Statistics³.

References

¹ JNCC, (2003), Guidance for Common Standards Monitoring (<http://jncc.defra.gov.uk/page-2199>)

² <http://www.snh.gov.uk/publications-data-and-research/snhi-information-service/>

³ <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>

Annex 1: The Proportion of Natural Features in Favourable Condition by Broad Type at 31st March 2017

Natural Feature Type	Number of Natural Features	Proportion Favourable (%)	Change in Percentage Points from 2016
Habitats			
Coastal	334	88.9	+0.3
Freshwater	223	74.4	-1.8
Grasslands	222	73.4	-0.5
Heath	380	76.1	+0.8
Marine	104	98.1	no change
Upland ³	346	83.5	-0.8
Wetland	348	85.9	+0.6
Woodlands ⁴	483	68.1	-1.0
Habitats Total	2440	79.3	-0.1
Species			
Amphibians	12	75.0	no change
Birds	1518	72.1	-1.1
Butterflies	30	86.7	no change
Dragonflies	26	100.0	no change
Fish	46	84.8	+8.7
Invertebrates	180	85.6	+1.2
Marine Mammals	28	57.1	no change
Non-vascular Plants	146	79.5	+0.6
Terrestrial Mammals	51	88.2	no change
Vascular Plants	158	91.8	+2.6
Species Total	2195	76.1	-0.2
Earth Science			
Earth Science	660	98.0	-0.1
Earth Science Total	660	98.0	-0.1
Total	5295	80.3	-0.1

³ Now includes 20 juniper scrub features transferred from Woodlands to the Upland feature type to better align with UK Common Standards Monitoring guidance.

As a 'like for like' comparison, the 2017 Upland 'Proportion Favourable' would be 83.1% with the juniper scrub features excluded, representing a 'like for like' -1.2% change from 2016.

⁴ Now excludes 20 juniper scrub features transferred to the Upland feature type.

As a 'like for like' comparison, the 2017 Woodlands 'Proportion Favourable' would be 69.0% with the juniper scrub features included, representing a 'like for like' -0.1% change from 2016.