C3. Status of European habitats and species

C3b. Status of UK species of European importance

Type: State Indicator

Summary

No new data since the previous publication.

In 2007, 26% of UK species listed on Annexes II, IV or V of the Habitats Directive were in favourable conservation status, increasing to 39% in 2013.
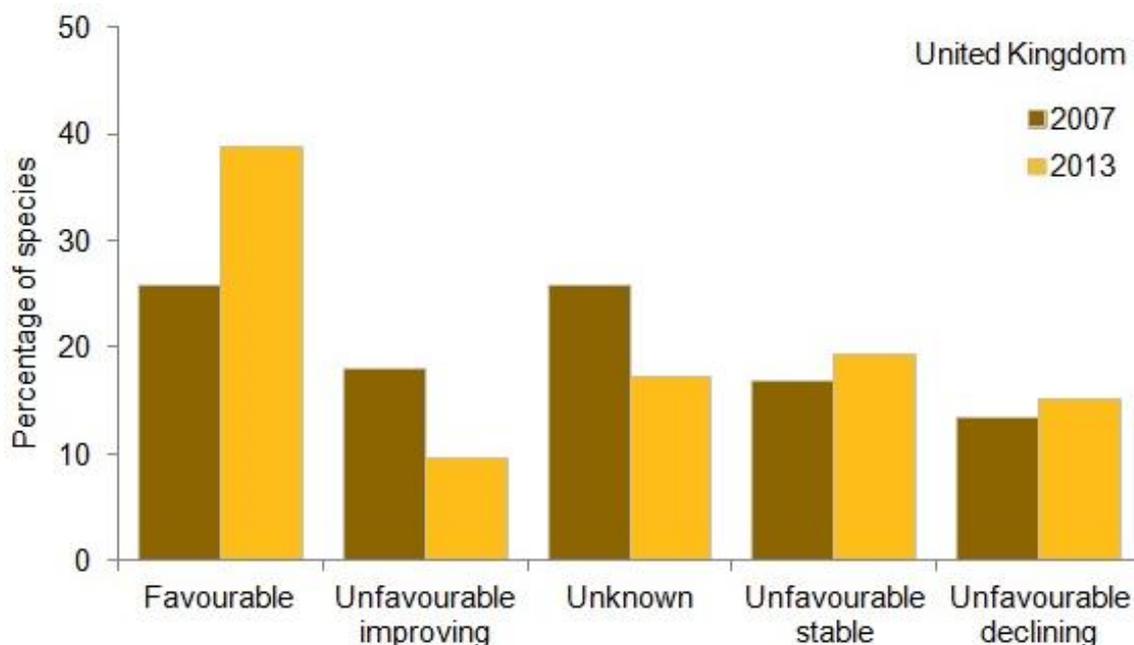
The conservation status of 18% of species was improving in 2007, decreasing to 10% in 2013.

The conservation status of 13% of the species was declining in 2007, increasing to 15% in 2013.

Indicator Description

Member States of the European Union are required to report every 6 years on the conservation status of habitats and species listed on the annexes of the Habitats Directive. Each assessment needs to conclude whether the species is in one of the following states: Favourable, Unfavourable-Inadequate, Unfavourable-Bad or Unknown. The indicator is based on an evaluation of whether the results are better or worse in 2013 than in 2007.

Figure C3bi. Percentage of UK species of European importance in improving or declining conservation status in 2007 and 2013.

Notes:
1. The number of species assessed was 89 in 2007, and 93 in 2013.
2. The chart is based on species listed on Annexes II, IV and V of the Habitats Directive, but excluding vagrants.
3. The aim of the Habitats Directive is to achieve favourable conservation status for the species and habitats listed in its Annexes. An assessment of status and trends for each species and habitat is undertaken every 6 years. Trends in unfavourable conservation status allow identification of whether progress is being made, as it will take many years for some habitats and species to reach favourable conservation status.

Source: UK Habitats Directive (Article 17) reports 2007 and 2013.

Assessment of change in status of UK species of European importance			
	Long term*	**Short term**	**Latest year**
Percentage of UK species of European importance in favourable or improving conservation status	⊙⊙⊙	✓ 2007–2013	Increased (2013)

*A long-term assessment is not made as the time series does not go back more than 10 years.

Indicator description

Member States of the European Union are required to report every 6 years on the conservation status of habitats and species listed on the annexes of the Habitats Directive. Details of exactly what information is to be delivered is laid out in the report format and guidance notes. Each assessment needs to conclude whether the species is in one of the following states:

- Favourable
- Unfavourable-Inadequate
- Unfavourable-Bad
- Unknown

However, it is likely to take time before species move from unfavourable conservation status to favourable conservation status, so for the unfavourable assessments, an assessment of trend is made to determine if the species is improving, declining, or stable. The information sources on which the assessments are based vary between species – their quality is documented in the database which underpins the assessments. The changes are largely based on evidence, though expert opinion was used in a few cases where evidence was not available.

The indicator is based on an evaluation of whether the results are better or worse in 2013 than in 2007. At its simplest (Figure C3bi), this is the proportion of species which are favourable or show an improving trend (i.e. favourable, or unfavourable-inadequate but improving, or unfavourable-bad but improving). This applies to 44% of species assessed in 2007, and 48% in 2013.

Figure C3bi combines the unfavourable inadequate and unfavourable-bad assessments which show a similar direction of trend. In both 2007 and 2013, improving and declining trends were assigned where the evidence allowed a conclusion that improvements or declines in the conservation status of species were occurring. Thus:

- Unfavourable-inadequate improving, and unfavourable-bad improving were summed to form the category 'unfavourable improving';
- Unfavourable-inadequate declining, and unfavourable-bad declining were summed to form the category 'unfavourable declining'.

In 2007, no trend was assigned to those species which were neither improving nor declining. This included both species for which the trend was unknown, and those for which there was no evidence of change. In 2013, careful consideration of evidence allowed the use of the term 'stable'. For ease of comparison in the figures, unfavourable-inadequate and unfavourable-bad assessments with no trend conclusion in 2007 were summed to form the category 'unfavourable stable'; the same term was used for 2013 data, but with more confidence that the trend was neither improving nor declining.

The assessment of change is evaluated against a 3% rule of thumb. In 2007, the percentage of UK species of European importance in favourable or improving conservation status was 44%, in 2013 it was 48%; the measure is assessed as improving.

Note that the Habitats Directive Annexes do not include birds, as they are covered by the provision of the (separate) Birds Directive, for which there is a different reporting process.

Relevance

Article 17 of the European Union Habitats Directive requires Member States to report every 6 years on progress made with maintaining and/or restoring favourable conservation status for habitat types and species of community interest. These are habitats and species for which the UK has European-level conservation responsibilities.

Background

The first assessment of conservation status of species and habitats listed on the annexes of the Directive was produced in 2007. A second assessment was produced in 2013. Each individual species assessment requires information on 4 parameters, which are brought together using an evaluation matrix to form an overall assessment.

For species the parameters are:

- range;
- population;
- habitat for the species; and
- future prospects.

The trend in the overall assessment is based upon an integration of the trend information for the individual parameters.

The UK reported on 89 species in the Atlantic biogeographic region in 2007. In addition, 28 species classed as vagrants or occasional visitors (4 bats, 16 cetaceans, 4 turtles, and 4 seals) to the UK were not fully assessed. Instead a paragraph of information was provided on the occurrence of each of these vagrant species. In 2013, the UK reported on 93 species, and collated information on a further 32 vagrants (6 bats, 1 fish, 17 cetaceans, 4 turtles and 4 seals).

The taxonomic breakdown of the 93 species reported for the UK in 2013 is:

Mammals	36
Fish	13
Amphibians	4
Reptiles	3
Invertebrates	16
Plants	21

Of these, 16 species are marine (2 marine algae (maerl), one turtle, 2 seals, 11 cetaceans), and the rest are terrestrial or freshwater. It should be noted that the list of species on the Habitats Directive Annexes was selected with a European emphasis, and therefore only represents a subset of those considered to be of importance for conservation effort within the UK.

Within the Habitats Directive, species can be listed on one or more of three annexes:
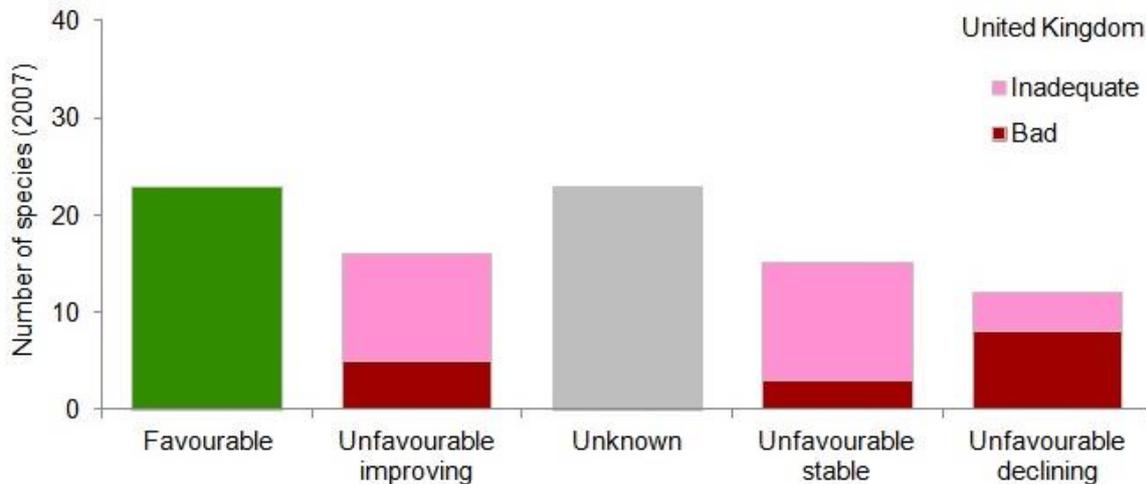
- Annex II: Animal and plant species of Community interest whose conservation requires the designation of Special Areas of Conservation (46 species in the UK, including one vagrant);

- Annex IV: Animal and plant species of Community interest in need of strict protection (81 species in the UK, including 32 vagrants);
- Annex V: Animal and plant species of Community interest for which certain measures to manage their exploitation are required (26 species in the UK; no vagrants).

Statistics for conservation status assessments quoted in this indicator are for the 93 UK species listed on Annexes II, IV, or V, excluding the 32 vagrant species.

Figure C3bii. Status of UK species of European importance, 2007.
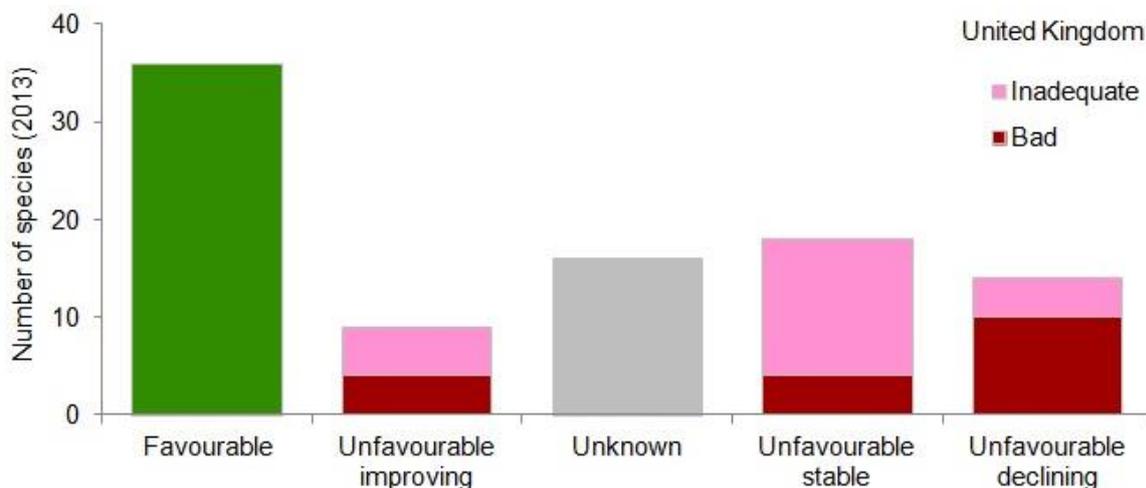

Notes:
1. Based on 89 species assessed in 2007.
2. Graph based on species listed on Annexes II, IV and V of the Habitats Directive, but excluding vagrants.
3. The aim of the Habitats Directive is to achieve favourable conservation status for the species and habitats listed in its Annexes. An assessment of status and trends for each species and habitat is undertaken every 6 years. Trends in unfavourable conservation status allow identification of whether progress is being made, as it will take many years for some habitats and species to reach favourable conservation status.
4. Red shows the number of species within a trend which were unfavourable-bad; pink shows the number of species within a trend which were unfavourable-inadequate.

Source: UK Habitats Directive (Article 17) reports 2007 and 2013.

Figure C3biii. Status of UK species of European importance, 2013.

Notes:
1. Based on 93 species assessed in 2013.
2. Graph based on species listed on Annexes II, IV and V of the Habitats Directive, but excluding vagrants.
3. The aim of the Habitats Directive is to achieve favourable conservation status for the species and habitats listed in its Annexes. An assessment of status and trends for each species and habitat is undertaken every 6 years. Trends in unfavourable conservation status allow identification of whether progress is being made, as it will take many years for some habitats and species to reach favourable conservation status.
4. Red shows the number of species within a trend which were unfavourable-bad; pink shows the number of species within a trend which were unfavourable-inadequate.

Source: UK Habitats Directive (Article 17) reports 2007 and 2013.

Figures C3bii and C3biii provide a breakdown of Figure C3bi by showing the number of species in the unfavourable categories which arise from the unfavourable-inadequate or unfavourable-bad assessment categories. The picture for species is somewhat better than for habitats (see indicator C3a), in that more species are in favourable conservation status, and more species which are unfavourable are in unfavourable-inadequate status than unfavourable-bad status.
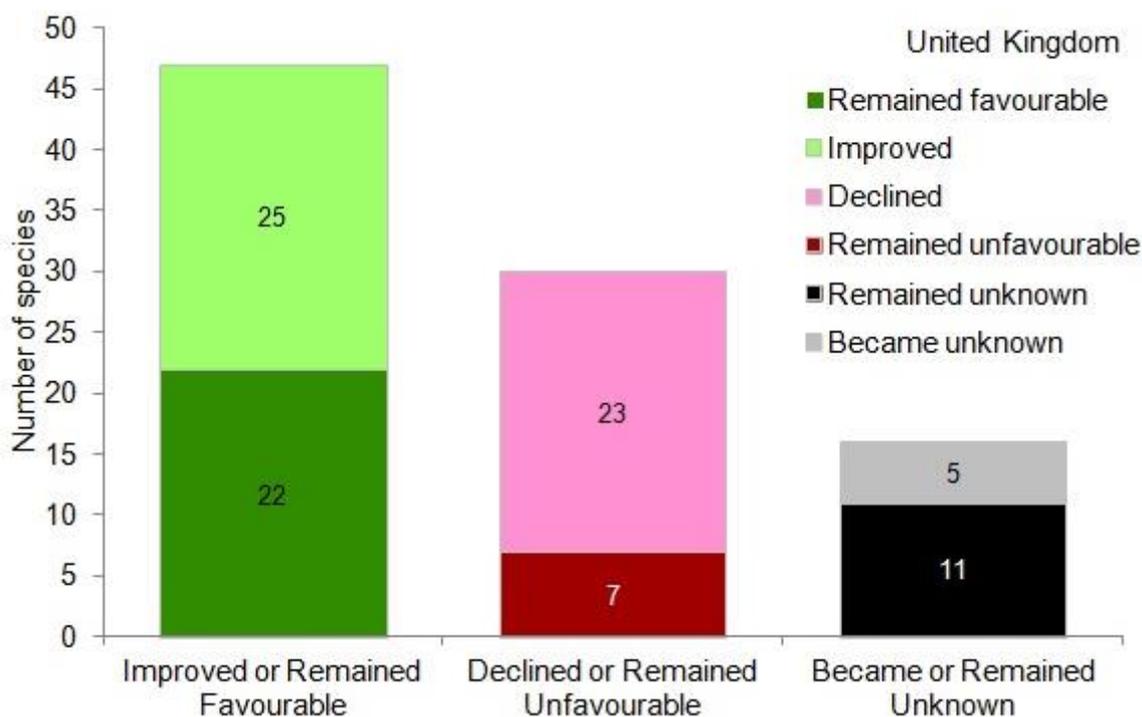
A change matrix to show improving and declining conservation status has been developed (Table C3bi) to apportion how each transition from a category in 2007 to a category in 2013 contributes to a 'better' or 'worse' result between the 2 reporting periods. Figure C3biv is linked to Figure C3bi, but is not a duplication, as Figure C3bi is based on state, and Figure C3biv is based on change; the 2 measures are therefore complementary.

Table C3bi. Change matrix for conservation status assessments in 2007 and 2013.

Species	2013									
2007	Favourable	Inadequate improving	Inadequate stable	Inadequate unknown	Inadequate declining	Bad improving	Bad stable	Bad declining	Unknown	Total
Favourable	21		2							23
Inadequate improving	2	4	2		1				2	11
Inadequate	2	1	4	1	1		1	1	1	12
Inadequate declining			1		1				2	4
Bad improving	1					3	1			5
Bad			1			1	1			3
Bad declining								8		8
Unknown	9		2		1		1	1	9	23
Not Assessed in 2007	1		1						2	4
Total	36	5	13	1	4	4	4	10	16	93

Note: Cells marked red contribute to Declined or Remained Unfavourable; cells marked green contribute to Improved or Remained Favourable.

Figure C3biv. Change in conservation status of UK species of European importance between 2007 and 2013.

Notes:
1. The number of species assessed was 89 in 2007, and 93 in 2013.
2. Graph based on species listed on Annexes II, IV and V of the Habitats Directive, but excluding vagrants.

Source: UK Habitats Directive (Article 17) reports 2007 and 2013.

Using the change matrix shown in Table C3bi, a comparison between the conservation status assessments undertaken for the 2007 and 2013 Habitats Directive reports shows that the net change (calculated as the difference between the red and green columns in Figure C3biv) is plus 18%.

These results are graphed in Figure C3biv:

- 47 species improved or remained favourable (green cells in Table C3bi, and green column in Figure C3biv): 22 species remained in favourable conservation status (e.g. stag beetle *Lucanus cervus* and otter *Lutra lutra*);

  o 14 species became favourable (e.g. brook lamprey *Lampetra planeri* and greater horseshoe bat *Rhinolophus ferrumequinum*);

  o 11 species showed an improvement in conservation status:

    ▪ moving from unfavourable-bad to unfavourable inadequate conservation status (e.g. marsh fritillary butterfly *Euphydryas aurinia*); or

    ▪ an improvement within one of the unfavourable categories (for example from unfavourable declining to unfavourable improving (e.g. twaite shad *Alosa fallax*); or

    ▪ the status has remained at improving since the last assessment (e.g. lady's-slipper orchid *Cypripedium calceolus* and natterjack toad *Bufo calamita*).

- 30 species declined or remained unfavourable (red cells in Table C3bi, and red column in Figure C3biv):

- o 7 species remained unfavourable (e.g. Atlantic salmon *Salmo salar*); and

- o 23 species got worse (e.g. common dormouse *Muscardinus avellanarius*) or are still declining (e.g. freshwater pearl mussel *Margaritifera margaritifera*).

- 11 species remained in an unknown status (e.g. leatherback turtle *Dermochelys coriacea* and killer whale *Orcinus orca*) between the 2 assessments (white cells in Table C3bi, and in the black and grey column in Figure C3biv). They are not included in the calculation of net change.

- Five species changed from a known to unknown status (e.g. sea lamprey *Petromyzon marinus*) between the reports (yellow cells in Table C3bi and included in the black and grey column in Figure C3biv). These are also not included in the calculation of net change.

JNCC and the Country Nature Conservation Bodies put a huge amount of effort into checking the assessments, and therefore have a high level of confidence that they are correct, and that changes, including within category changes, have been consistently and accurately discriminated. These changes are ecologically important, as stabilising a decline in a species, for example, is an important conservation achievement. The information sources on which the assessments are based are quite varied – their quality is documented in the database which underpins the assessments. The changes are largely based on evidence, though expert opinion was used in a few cases where evidence was not available.

A guiding principle in presenting this indicator has been that if conservation action is making a difference, positive change would be expected between reporting periods. On that basis, both declines in conservation status and stability in status (i.e. species remaining in a stable unfavourable conservation status) would be seen as a negative outcome.

Goals and targets

Aichi Targets for which this is a primary indicator

Strategic Goal C. To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.

 Target 12: By 2020, the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Aichi Targets for which this is a relevant indicator

Strategic Goal B. Reduce the direct pressures on biodiversity and promote sustainable use

 Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Strategic Goal C. To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

Web links for further information

Reference	Title	Website
UK Habitats Directive Report 2001	First report by the United Kingdom	http://jncc.defra.gov.uk/page-3051
UK Habitats Directive Report 2007	Summary of Conservation Status Assessments	http://jncc.defra.gov.uk/page-4067
UK Habitats Directive Report 2013	Summary of Conservation Status Assessments	http://jncc.defra.gov.uk/page-6565
European guidance on making conservation status assessments	Reference Portal for Article 17 of the Habitats Directive	http://bd.eionet.europa.eu/article17/reference_portal
European level assessments	Online report on Article 17 of the Habitats Directive: conservation status of habitats & species of Community interest (2001-2006)	http://bd.eionet.europa.eu/article17
European level assessments	EEA Technical report No 2/2015: Results from reporting under the nature directives 2007-2012	http://www.eea.europa.eu/publications/state-of-nature-in-the-eu

Full details of this indicator, including a datasheet and technical documentation are available at: http://jncc.defra.gov.uk/page-6566

Last updated: October 2013

Latest data: 2013