



Department
for Environment
Food & Rural Affairs

England Natural Environment Indicators

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This England Natural Environment Indicators publication is also available on our website at: www.gov.uk/government/statistics/england-natural-environment-indicators

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Photographs:

Left – Kirkham Priory and the river Derwent, Right – Skinningrove
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Responsible Statistician: Christine Holleran

Any enquiries regarding this document/publication should be sent to us at:

Enviro.statistics@defra.gsi.gov.uk or

Biodiversity Statistics Team, Department for Environment, Food and Rural Affairs, Foss House, Kings Pool, 1-2 Peasholme Green, York, YO1 7PX

Introduction

The [Natural Environment White Paper](#) (NEWP) was published in 2011 by the coalition government. It set out the government's strategy for valuing nature in our society and ensuring that it is available for use by future generations. The White Paper contained 92 commitments. The England Natural Environment Indicators (ENEI) publication has been produced under commitment 90 of the White Paper:

“We will develop a set of key indicators...to track progress on the ambitions of this White Paper. These will include a new, compact set of biodiversity indicators for the England Biodiversity Strategy. We will consult on them and finalise them by Spring 2012.”

The purpose of the ENEIs was to track progress against the broad ambitions of the White Paper, to communicate this progress to stakeholders and interested users and to provide a robust evidence base on which to base future policy interventions.

In January 2018, the Conservative government published their [25 year plan for the environment](#). The plan sets out government action to help the natural world regain and retain good health. It aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats. It calls for an approach to agriculture, forestry, land use and fishing that puts the environment first. The government has made a commitment to develop a set of metrics to assess progress towards the goals of the 25 year environment plan. Government will then report on progress annually and refresh the plan periodically to make sure that actions continue to target the right improvements and make a real difference. This new reporting will supersede the ENEI publication and this 2018 publication is therefore likely to be the last in the current series. Where appropriate, links are provided in this year's release to updated assessments and/or data for the indicators included in the 2017 ENEI publication¹. The accompanying datasets have not been updated this year because all the new data available for the 2018 publication can be accessed via the aforementioned links.

An updated assessment² and accompanying dataset for the marine litter indicator have been included separately within this release because these data are not published elsewhere.

At the time of publication, there were no updated assessments or data available for the following indicator measures: breeding seabirds; forest carbon stock; soil carbon concentration; the value of UK woodland ecosystem services; the percentage of large companies that use an environmental management scheme; the percentage of companies where the environment is formally considered in the supply chain; and the number of visits made by children to the natural environment. The most recent assessments and data for these measures can be found in the 2017 ENEI publication and accompanying datasets available [here](#).

¹ Links were correct at the time of publication

² Based on the 'traffic-light' assessment methodology used in previous ENEI publications – see Annex 1

Overview

Indicator	Individual measures	New assessment	New data
1. Species in the wider countryside	Breeding farmland birds	See Section 2 of the main publication	See Farmland birds dataset
	Butterflies of the wider countryside on farmland	Available here	See Farmland tab of the dataset
	Widespread bats	See Indicator 5	See Tab 5 of the dataset
	Breeding woodland birds	See Section 3 of the main publication	See Woodland birds dataset
	Butterflies of the wider countryside in woodland	Available here	See Woodland tab of the dataset
	Breeding wetland birds	See Section 4 of the main publication	See Water and wetland birds dataset
	Wintering water birds	See Section 6 of the main publication	See Wintering waterbirds dataset
	Breeding seabirds	No update available at the time of publication	
2. Water quality	Proportion of surface water bodies with status classed as good or high	See Indicator 21	See Tab 21 of the dataset
3. Marine ecosystem integrity	Fish size class ³	See Indicator 11	See Tab 11 of the dataset
	Marine litter	See update below	
4. Priority species	Relative abundance of priority species	See Indicator 4a	See Tab 4a of the dataset
	Distribution of priority species	See Indicator 4b	See Tab 4b of the dataset

³ New methodology used to assess this indicator – see source publication for further details

5. Land use	Percentage of woodland in active management	See Page 17	
6. Natural stocks	Sustainable fisheries ⁴	See Indicator 23	See Tab 23 of the dataset
	Water abstraction	Available here	Available here
	Forest carbon stock	No update available at the time of publication	
	Soil carbon concentration (all habitats)	No update available at the time of publication	
7. Raw material consumption	Raw material consumption	See Section 5	Available here
8. Value of ecosystem services	Value of UK woodland ecosystem services	No update available at the time of publication	
9. Integrating biodiversity and natural environment considerations into business activity	Percentage of large companies that use an environmental management scheme	No update available at the time of publication	
	Percentage of companies where the environment is formally considered in the supply chain	No update available at the time of publication	
10. Public engagement with the natural environment	Proportion of people visiting the natural environment several times a week or more ⁵	See page 8 – 9 of the Headline Report	See Tab A of the accompanying dataset
	Number of visits made by children to the natural environment	No update available at the time of publication	
	Conservation volunteering	See Indicator 14	See Tab 14 of the dataset
11. Environmental quality and health	Number of air pollution days classed as moderate or higher - urban	See Table 2 , page 32 of the publication	
	Number of air pollution days classed as moderate or higher - rural	See Table 2 , page 32 of the publication	
	Mortality caused by anthropogenic air pollution	See Health protection: Indicator 3.01 - available here	
	Percentage of the population affected by noise	See Wider determinants of health: Indicator 1.14i - available here	

⁴ New methodology used to assess this indicator – see source publication for further details



⁵ Not directly comparable to previous versions of this measure

Marine ecosystem integrity

Marine litter

In 2017, the average number of litter items per km² on the seabed around the UK was 354. This figure is very similar to that recorded last year but 219% higher than the 1992-94 baseline average⁶. In 2003, the amount of seabed litter was almost 12 times that of the baseline average, but since this peak it has fallen considerably and since 2009 it has remained below 400 items per km². Marine litter is dominated by plastics, which currently make up 81% of all the litter found on the seabed around the UK⁷.

Indicator assessment

Assessment of change	Long term	Short term	Latest year
Marine litter (number of litter items/km ² of seabed)	 1992-2017	 2012-2017	No change (2017) ⁸

Links to data and further information

Organisation	Subject
British Oceanographic Data Centre	Home page
Centre for Environment, Fisheries and Aquaculture Science	Home page
Defra	Charting Progress: The State of UK Seas
European Environment Agency	State of Europe's seas Marine indicators Marine litter watch
Marine Environmental Data and Information Network	Home page
The International Council for the Exploration of the Sea	Home page

⁶ For the purpose of this indicator, data have been combined from several surveys of the seabed around the UK coastline, both within and outside of the 12 nautical mile limit. Historically, the collected concentrations data from these surveys have shown considerable temporal and spatial variability. The different surveys employ similar types of trawls but the number and location of these survey trawls varies from year to year. Protocols relating to the analysis of seabed litter items have also changed over time and until 2010, only some of the surveys counted the actual number of litter items in the trawls, most simply recorded the weight of litter recovered. Furthermore, it is possible that the data may have also exhibited considerable year-on-year variation due to exogenous factors such as hydrodynamics, seasonal variation and geomorphology. The indicator assessment should therefore be treated with caution.

⁷ Based on a 3-year rolling average of the most recent data available.

⁸ Given the annual fluctuations observed in environmental indicators, latest-year assessments are reported as 'no change' unless the increase or decrease is greater than 1%.

Dataset

Number of litter Items/km² of seabed⁹

Composition of seabed litter¹⁰

Year	Average number of litter items/km ²
1992	94
1993	91
1994	147
1995	158
1996	181
1997	128
1998	69
1999	133
2000	151
2001	302
2002	503
2003	1,300
2004	1,258
2005	283
2006	926
2007	353
2008	425
2009	98
2010	232
2011	204
2012	173
2013	193
2014	183
2015	141
2016	358
2017	354

Litter type	3-year (2015-2017) average	
	Total number of litter items/ km ²	% of total
Plastic	2,913	81
Metal	92	3
Rubber	209	6
Glass/Ceramics	52	1
Natural products	154	4
Miscellaneous	173	5
Totals	3,593	100

Geographical coverage: UK

Source: Centre for Environment, Fisheries and Aquaculture Science

⁹ For the purpose of this indicator, data have been combined from several surveys of the seabed around the UK coastline, both within and outside of the 12 nautical mile limit. Historically, the collected concentrations data from these surveys have shown considerable temporal and spatial variability. The different surveys employ similar types of trawls but the number and location of these survey trawls varies from year to year. Protocols relating to the analysis of seabed litter items have also changed over time and until 2010, only some of the surveys counted the actual number of litter items in the trawls, most simply recorded the weight of litter recovered. Furthermore, it is possible that the data may have also exhibited considerable year-on-year variation due to exogenous factors such as hydrodynamics, seasonal variation and geomorphology. The indicator assessment should therefore be treated with caution.

¹⁰ Based on a 3-year rolling average of the most recent data available.

Annex 1: Traffic-light assessment methodology

The marine litter indicator has been assessed using a set of 'traffic lights'. The traffic lights show change over time. They do not show whether the measure has reached any published or implied targets or whether the status is 'good' or 'bad'.

The traffic lights are determined by identifying a period over which the change is to be assessed and comparing the value of the measure in the base or start year with the value in the end year.



Improving



Little or no overall change



Deteriorating



Not yet assessed due to insufficient or no comparable data

The assessment has been made by Defra statisticians in collaboration with the data providers. A green or red traffic light is only applied when there is sufficient confidence that the change is significant and not simply a product of random fluctuations.

It is not possible to formally determine statistical significance for the marine litter indicator therefore the assessment has been made by comparing the difference between the value of the measure in the base or start year and the value in the end year against a 'rule of thumb' threshold. The standard threshold used is 3%. A 3-year average is used to calculate the base year, to reduce the likelihood of any unusual year(s) unduly influencing the assessment. Where an indicator value has changed by less than the 3% threshold, the traffic light is set at amber. The choice of 3% as the threshold is arbitrary but is commonly used across other government indicators and use of this approach is kept under review

The traffic lights only reflect the overall change in the measure from the base to the latest year and do not reflect fluctuations during the intervening years.

Two assessment periods have been used:

1. Long term – an assessment of change since the earliest date for which data are available.
2. Short term – an assessment of change over the latest 5 years.

The indicator also has a third marker showing the direction of change in the latest year. This period is too short for a meaningful assessment. However, when it exceeds a 1% threshold, the direction of change is given simply as an acknowledgement of very recent trends and as a possible early indication of emerging trends.

Annex 2: National Statistics



The following statistics presented in publications linked to this 2018 update of ENEI have been designated as National Statistics:

- Species in the wider countryside: breeding farmland birds
- Species in the wider countryside: woodland birds
- Species in the wider countryside: breeding wetland birds
- Species in the wider countryside: wintering water birds
- Public engagement with the natural environment: proportion of people visiting the natural environment several times a week or more
- Environmental quality and health: number of air pollution days classed as moderate or higher – urban, and
- Environmental quality and health: number of air pollution days classed as moderate or higher – rural

Official statistics are statistics that are produced by crown bodies, those acting on behalf of crown bodies, or those specified in statutory orders, as defined in the [Statistics and Registration Service Act 2007](#). The Office for Statistics Regulation (OSR), the regulatory arm of the UK Statistics Authority, assesses compliance of these statistics against the [Code of Practice for Statistics](#).

Official statistics that are assessed as fully compliant with the Code (that is, they meet the highest standards of trustworthiness, quality and value) are designated as **National Statistics**.

The UK Statistics Authority's assessment of these indicators, alongside other environmental statistics, can be found in its reports on [Statistics on Sustainability and the Environment in England and the UK \(Department for Environment, Food and Rural Affairs\)](#) and [Statistics on Engagement with the Natural Environment \(Natural England\)](#), and in the accompanying letters confirming their status as National Statistics.

Designation does not mean that all the individual statistics linked to this publication are National Statistics in their own right; it only relates to the statistics listed above.