

Appendix 4: Rare and protected species categories

This Appendix aims to provide a detailed background to the many categories of species status which have been referred to elsewhere in the Handbook. Note that the information below is taken from a variety of sources (website links are included where available) and that those sources are subject to change. If in doubt about a species' status, it is important to check with the source authority in case there has been an update since this Appendix was last compiled.

4.1 IUCN threat categories

These are the categories mentioned in **Appendix 3**; they affect which criteria apply to sites which house species which are on the Red Data Lists. As a general rule, species which feature on a Red Data List as Critically Endangered, Endangered, Vulnerable or Near Threatened are counted as having high conservation importance for the purpose of KWS selection. This includes both globally-threatened species **and** those which feature on the national Red Data Lists, e.g. the England Vascular Plant Red Data List, even where the latter have a lower threat level on the global red list. This is in recognition of the steep population decline of certain species at the national level, and the need to prevent those species from creeping up the “threatened” scale until they, too, have to go onto the global lists.

The majority of red-listed species are categorised according to the 2001 *IUCN Red List Categories and Criteria. Version 3.1*.

(link to document: http://jr.iucnredlist.org/documents/redlist_cats_crit_en.pdf)

Categories used in Appendix 3 are defined as follows:

CRITICALLY ENDANGERED (CR). A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered, and it is therefore considered to be facing an extremely high risk of extinction in the wild.

ENDANGERED (EN). A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered, and it is therefore considered to be facing a very high risk of extinction in the wild.

VULNERABLE (VU). A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable, and it is therefore considered to be facing a high risk of extinction in the wild.

NEAR THREATENED (NT). A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.

Old categories of “Rare”, “Endangered” and “Vulnerable” are still in use where the most recent IUCN criteria have not yet been applied. These follow the old *1994 Red List Categories and Criteria (v2.3)*. Refer to the latest JNCC download for updates.

Less urgent categories include those where the species is of less concern, and those where the species is gone altogether:

REGIONALLY EXTINCT (RE). A taxon is Regionally Extinct when there is no reasonable doubt that the last individual has died in the region. A taxon is presumed Regionally Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range within the region have failed to record an individual. Surveys should be over a time frame appropriate to the taxon’s life cycle and life form.

EXTINCT IN THE WILD (EW). These taxa no longer occur naturally in the wild; they may still be present as captive, domestic or cultivated animals and plants.

EXTINCT (EX). Completely gone from the whole of the geographic range of the Red List in question.

LEAST CONCERN (LC). A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.

Data Deficient (DD) and Waiting List (WL) are also categories; they reflect the daunting level of research still needed in order to assess the threat levels for all known species.

The above categories apply to the geographic scope of the red list concerned; an EX species for the GB Red Data List will be entirely extinct within Great Britain; an EX species in the Global list will be extinct everywhere.

The IUCN Red List website is comprehensive and includes interesting additional information about rare and threatened species: <http://www.iucnredlist.org>

How the IUCN lists are compiled

The tables below are taken from the 2014 *England Vascular Plant Red Data List*, produced by the Botanical Society for the British Isles. They provide useful detail on how the global threat levels are defined – e.g. what makes a species “critically endangered” as opposed to “vulnerable” or “least concern”.

Table 1: IUCN threat categories and Criteria applied to the England Vascular Plant Red List. Some IUCN sub-criteria were not used in the assessment process. Criterion A evaluates distribution trends and/or spatial spread, since 1930; Criterion B deals with declining taxa that have a restricted geographic range and occur in a small number of locations; Criterion C covers declining taxa that have a small population size; Criterion D assesses taxa that are not necessarily declining, but have a very small number of individuals and/or occur at a small number of locations. If a taxon qualifies for more than one threat category, the highest threat category is assigned.

	Critically Endangered	Endangered	Vulnerable	Near Threatened
A. Population reduction	≥ 80%	≥ 50%	≥ 30%	≥ 20%
Sub-criteria A2: Population reduction observed, estimated, inferred, or suspected in the past where the causes of reduction may not have ceased or may not be understood or may not be reversible, based on sub-criteria (a) or (c)				
	(a) direct observation			
	(c) a decline in area of occupancy (AOO), extent of occurrence (EOO) and/or habitat quality			

B. Geographic range				
Sub-criterion B1: EOO	<100km ²	<5,000km ²	<20,000km ²	
Sub-criterion B2: AOO	<10km ²	<500km ²	<2,000 km ²	
AND				
(a) Number of locations	1	≤5	≤10	≤30
(b) Continuing decline in any of: (i) EOO; (ii) AOO; (iii) area, extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals.				

C. Small population size and decline				
Number of mature individuals	<250	<2,500	<10,000	not applicable
AND				
Sub-criterion C2: A continuing decline AND				
C2 (ai) Number of mature individuals in each subpopulation:				
	<50	<250	<1,000	not applicable
OR				
C2 (aai) % individuals in one subpopulation =				
	90–100%	95–100%	100%	not applicable

D. Very small or restricted population				
Either:				
Number of mature individuals				
	<50	<250	D1. <1,000 AND/OR D2. number of locations ≤5	<10,000
VU D2. Restricted number of locations with a plausible future threat that could drive the taxon to CR or EX in a very short time				

Table 2: *Explanation of IUCN threat categories applied to taxa that are **not** assessed as threatened (i.e. CR, EN, VU) or Near Threatened (NT).*

Threat Category	Description
Least Concern (LC)	Assessed as not threatened following consideration of Criteria A, B, C & D
Extinct (EX)	Extinct in England and elsewhere in GB
Regionally Extinct (RE)	Extinct in England but still present elsewhere in GB
Extinct in the Wild (EW)	Extinct in England and elsewhere in GB, but still present in cultivation
Data Deficient (DD)	Taxa believed to have very restricted and quite possibly threatened populations, but insufficient data for analysis

Waiting List (WL)	Full assessment not possible due to inadequate data, taxonomic uncertainties or uncertainties over native or archaeophyte status
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National Red Data Lists

Several of the major recording associations have compiled national Red Lists based on the above IUCN criteria, usually in conjunction with the relevant national conservation agency. These include:

Vascular Plant Red Data Lists for GB and for England;

Butterfly Red List for Great Britain;

Odonata Red List for Great Britain etc.

See the JNCC Publications web pages for more: <http://jncc.defra.gov.uk/page-3352>

4.2 International wildlife conventions

The United Kingdom government is signed up to a range of international conventions aimed at reducing biodiversity loss and/or limiting activities known to be damaging to the natural environment. Some are concerned specifically with species conservation, some are more broadly aimed at maintaining “natural capital” and “ecosystem services” which are vital for human life and development as well as for wildlife.

Gloucestershire supports several habitats and species which are listed in one or more annexes to international conventions. In general these species are treated in Appendix 3 as being of high conservation concern. Key conventions relevant to species conservation – which have given rise to corresponding national legislation – include:

Convention on Biological Diversity

The [Convention on Biological Diversity](#) (Biodiversity Convention or CBD) was adopted at the Earth Summit in Rio de Janeiro, Brazil in June 1992, and entered into force in December 1993.

As the first global treaty to provide a legal framework for biodiversity conservation, the Convention established three main goals:

- the conservation of biological diversity,
- the sustainable use of its components,
- the fair and equitable sharing of the benefits arising from the use of genetic resources.

Contracting Parties are required to create and enforce national strategies and action plans to conserve, protect and enhance biological diversity. They are also required to undertake action to implement the thematic work programmes on ecosystems and a range of cross-cutting issues which have been established to take forward the provisions of the Convention. The CBD has therefore been responsible for a succession of Biodiversity Action Plans and strategies covering both species and habitats at a regional (e.g. the EU), national (e.g. UK) and local level.

Within the UK, delivery of the CBD and the Strategic Plan is now guided by the [UK Post-2010 Biodiversity Framework](#). This framework is overseen by the Environment Departments of all four governments in the UK working together through the Four Countries Biodiversity Group. The framework demonstrates how the work of the four countries and the UK contributes to achieving the 'Aichi targets', and identifies the activities required to complement the individual [country biodiversity strategies](#). Species which are the target of conservation efforts related to the CBD have been listed as UK Priority Species; each national has a relevant list.

The UK has currently ratified four legally-binding Agreements under the Convention on Biological Diversity, namely the Agreement on the Conservation of Populations of European Bats (**EUROBATS**); the African-Eurasian Migratory Waterbird Agreement (**AEWA**); and the Agreement on the Conservation of Small Cetaceans in the Baltic, North-East Atlantic, Irish and North Seas (**ASCOBANS**), and the Agreement on the Conservation of Albatrosses and Petrels (**ACAP**). Of these, EUROBATS is the one most likely to affect decision-making for KWS selection.

See the JNCC website for more information: <http://jncc.defra.gov.uk/page-1363>

Bern Convention

[The Convention on the Conservation of European Wildlife and Natural Habitats](#). This is probably the most influential convention regarding national legislation for the benefit of species conservation. The principal aims of the Convention are to ensure conservation and protection of wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to regulate the exploitation of those species (including migratory species) listed in Appendix III.

The UK government ratified the Bern Convention in 1982.

The obligations of the Bern Convention are transposed into national law by means of the **Wildlife and Countryside Act** (1981 as amended), Nature Conservation (Scotland) Act 2004 (as amended), Wildlife (Northern Ireland) Order 1985, and the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985.

As a signatory to the European Community, the UK Government meets its obligations under the Convention by means of the Council Directive 79/409/EEC on the Conservation of Wild Birds (the **Birds Directive**) and the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the **Habitats Directive**).

Bonn Convention

[The Convention on the Conservation of Migratory Species of Wild Animals](#) (Bonn Convention or CMS) was adopted in Bonn, Germany in 1979 and came into force in 1985. Contracting Parties work together to conserve migratory species and their habitats by providing strict protection for endangered migratory species (listed in Appendix I of the Convention), concluding multilateral Agreements for the conservation and management of migratory species which require or would benefit from international cooperation (listed in Appendix II), and by undertaking cooperative research activities.

The UK ratified the Bonn Convention in 1985. In England and Wales the legal requirement for the strict protection of Appendix I species is provided by the Wildlife & Countryside Act (1981 as amended). This is the legislation referred to as “Schedules” in Appendix 3, i.e. Wildlife and Countryside Act schedule lists of protected species.

In addition the Countryside and Rights of Way Act 2000 (CRoW) was enacted in England and Wales to strengthen the protection of certain species by increasing penalties and enforcement powers; and strengthened the protection of sites from damage caused by third parties.

4.3 UK Priority Species

UK Priority Species – previously referred to as Biodiversity Action Plan species – resulted from the provisions of the Convention on Biological Diversity – see above. In the case of England the species are listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act.

4.4 Nationally Notable and Nationally Scarce Species

There are many lists of species of national conservation concern which don't feature on the IUCN lists but which do give rise to conservation concerns within Great Britain. JNCC have a summary of the kind of categories involved:

Table 3: *Red listed and rare species – not based on IUCN Criteria*

Nationally rare without IUCN designation	Occurring in 15 or fewer hectads in Great Britain. Excludes rare species qualifying under the main IUCN criteria.
Nationally scarce species without an IUCN designation	Occurring in 16–100 hectads in Great Britain. Excludes rare species qualifying under the main IUCN criteria.
Bird Population Status: red	Red list species are those that are Globally Threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery.
Bird Population Status: amber	Amber list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.
Nationally rare	Occurring in 15 or fewer hectads in Great Britain
Nationally rare marine species	Species which occur in eight or fewer 10km X 10km grid squares containing sea (or water of marine saline influence) within the three mile territorial limit
Nationally scarce	Taxa which are recorded in 16–100 hectads (10km squares) but not included in one of the Red List Categories
Nationally scarce marine species	Species which occur in nine to 55 10km X 10km grid squares containing sea (or water of marine saline influence) within the three mile territorial limit

Known gaps:

- Notable macro-moths: The last published "official" list was in 1999 but an unofficial version was released in "Field guide to the Moths of Great Britain and Ireland", in 2009.
- Notable spiders: NCC published a review of Nationally Scarce spiders in 1990, but is now considered to be out-of-date and unsuitable for inclusion.
- Micro-moths – these now have a provisional Red Data List from which the relevant categories in Appendix 3 have now been updated.

4.5 County rarities

Many recording groups and County Recorders aim to produce County Red Data Lists or other checklists of species which need recognition at the county level due to local rarity and/or decline. The county status of species has been taken into account in the KWS Criteria. Where available, individual accounts for key species groups have been provided by the relevant County Recorders and are included in Part 2, Section 3 of the Handbook.