

FIFTH QUINQUENNIAL REVIEW OF SCHEDULES 5 AND 8 OF THE WILDLIFE & COUNTRYSIDE ACT, 1981

Consultation paper by the Joint Nature Conservation Committee

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1 Background to this consultation

- 1.1 The Joint Nature Conservation Committee is required by law to review the protected animals (other than birds) listed on Schedule 5 and the protected plants listed on Schedule 8 of the Wildlife and Countryside Act 1981 every five years and to advise Ministers of whether species of animals or plants should be added to or removed from these Schedules.
- 1.2 The latest Quinquennial Review was due to commence in 2006. At its September 2005 meeting, the Joint Committee agreed to combine the first stage of the Fifth Quinquennial Review (where candidate species for protection are first identified) with the process of reviewing the UK BAP list of priority species, which was then starting, to capture those recommendations for legal protection arising from the UK BAP process. This avoided beginning a separate first phase for the Fifth Quinquennial Review that would have duplicated the review of priority species for UK BAP.
- 1.3 Therefore, the first phase of the Fifth Quinquennial Review was run as part of the revision of the UK BAP list and was then included within the follow up exercise identifying priority actions, which identified species where there was considered to be a need for legislative action. The UK BAP review process, however, fell behind schedule which in turn has delayed the start of the Fifth Quinquennial Review first consultation.
- 1.4 At the time of the commencement of this first consultation for the Fifth Quinquennial Review there are some gaps in coverage for the final version of the UK BAP review exercise (notably for marine species, including marine fish where the measures needed to protect declining species are subject to debate). In addition, the county conservation agencies in England, Scotland and Wales have had very limited time to consider the results of the UK BAP review in conjunction with their experience of the pressures currently impacting upon threatened species in their respective countries. Also, while there has been a response from Defra for England (in February 2008) to the advice submitted from the Fourth Quinquennial Review, decisions have yet to be taken with regard to the Fourth Review in Scotland and Wales. These uncertainties mean that the JNCC plans to issue a further paper within the consultation period to seek further views from consultees on these issues.
- 1.5 JNCC staff have reviewed all species currently listed on Schedules 5 & 8 to check that they are still taxonomically valid and endangered or likely to become endangered. JNCC staff have also checked currently available UK BAP priority actions to identify those containing proposed legal protection measures and have assessed these against the criteria for listing on the Schedules, given at ANNEX 1 (approved by the Joint Committee in 2005).

1.7 This consultation runs from 12 March 2008 until 4 June 2008. Responses are invited commenting on the proposed additions and removals; this is also an opportunity to identify further species proposed for addition or removal. The late-running of the UK BAP process means that there is only limited information for some species regarding the likelihood that proposed additions suffer from direct human pressure, or that there would be any other benefits likely to accrue by adding the species to the Schedules. Therefore, additional information, focussing on the reasons for adding species to the Schedules, is invited. Any proposed additions or deletions to Schedules 5 or 8 should use the proforma at ANNEX 6 to provide full details for assessing the criteria in ANNEX 1. Please submit your response to:

1.8 JNCC E-mail response contact point: chris.cheffings@jncc.gov.uk

2 Species proposed for addition to Schedules 5 and 8

- 2.1 ANNEX 2 contains all of the species that have been recommended for addition to the Schedules by JNCC staff in consultation with Country Agency Staff. This does not include all of the species that had some form of ‘legal protection’ recommended during the UK BAP priority action exercise. Further notes on these species are included in ANNEX 3.
- 2.2 Consultees who consider that any of the species included in ANNEX 3 should be added to either Schedule 5 or 8 should complete the proforma in ANNEX 6. This will allow full consideration of the species against the criteria listed in ANNEX 1.
- 2.3 Not included in the draft list for first consultation are those marine fish species for which the UK BAP recommended action at an earlier stage was ‘fisheries measures’ to be determined by UK/EU/ICES that are to be taken forward by international action. A further consultation may be issued by JNCC once further views have been received from the UK BAP process.

3 Species proposed for removal from Schedules 5 and 8

- 3.1 The species currently listed on Schedules 5 and 8 have been checked for species no longer regarded as taxonomically valid (for example, being now subsumed within another species that is not threatened), for species that could no longer be regarded as endangered or likely to become endangered and for species that have become extinct in Britain. The last category is difficult to assess in practice because in less well-recorded groups there can be an absence of records for several years due to lack of diligent searches and/or the species being very hard to detect. Consequently, for this evaluation exercise, only those species that have been carefully searched for, and whose distribution and ecological requirements are sufficiently well-known to allow detection, have been assessed as extinct. In addition, if there are proposals to re-establish an extinct species, for example, as part of a recognised conservation programme supported by UK BAP, then the species is proposed for retention on the Schedule on the basis that if a species is re-established then it will benefit from legal protection.
- 3.2 Species which JNCC staff consider should be added to the consultation list for deletion from the Schedules are set out in ANNEX 4. Name changes involving no change in taxonomic status are not included in ANNEX 4 (these do not need to be part of the formal consultation process).
- 3.3 The lichen formerly known as *Lecanactis hemisphaerica* (Churchyard Lecanactis) is now regarded as a form of *Lecanographa grumulosa*; our current view is that it should be retained on Schedule 8 with the taxonomic status changed to *Lecanographa grumulosa* forma *hemisphaerica*. Consultees are invited to comment on whether they consider this retention as appropriate.

ANNEX 1 Criteria for the selection of species for Schedules 5 and 8 of the Wildlife and Countryside Act, 1981

1. Rationale underlying scheduling

1.1 In compliance with the purpose and provisions of the relevant Sections of the Wildlife and Countryside Act 1981, the statutory nature conservation agencies will pursue scheduling when:

- i. there is an international obligation to afford to the species legal protection;
- ii. an animal or plant is in danger of extinction in Great Britain, or is likely to become so endangered unless conservation measures are taken, and legal protection is likely to improve its chances of survival.

1.2 Scheduling is considered to be particularly appropriate where there is a need to:

- iii. protect an animal or plant species from direct human pressure such as persecution, collection or trade;
- iv. protect elements of habitat essential for the survival of an endangered species.

Scheduling also has the effect of raising awareness of the threats to species and thus the need for their protection.

2. Guidelines for recommending species for scheduling

Range of taxa under consideration

For Schedule 5 - vertebrates other than birds, invertebrates.

For Schedule 8 - vascular plants, bryophytes, lichens, fungi and algae.

All species of the groups listed above, including species at present on the schedules.

Taxa below species level under some circumstances (see 'Eligibility criteria').

Eligibility criteria

For a species to be recommended for scheduling one of the eligibility criteria in each of the Sections A to D below should be met:

- A Generally, only native (including re-established) taxa are to be considered. Taxa introduced or thought to be introduced to Great Britain by man could be considered exceptionally, with the following provisos:

- i. the organism is endangered or extinct in its native range (in Great Britain or elsewhere), and
- ii. preferably, the natural range reaches the north west coast of Europe (*i.e.* continental distribution extends to the Atlantic coast of France, Belgium, the Netherlands, Germany or Scandinavia; for marine taxa, the distribution includes the north west Atlantic area), and provided that
- iii. information suggests that the organism is unlikely to have an adverse impact on important native species or ecosystems.

B The taxon must be either:

- i. established in the wild in Great Britain
or
- ii. occur as a vagrant in Great Britain and require international protection
or
- iii. be believed extinct in Great Britain as a breeding species, but be in the process of re-establishment
or
- iv. be believed extinct in Great Britain, but with the possibility that it could become re-established naturally.

C The taxonomic status of the organism must be well authenticated. Taxa below the species level could be considered, providing they are:

- i. clearly recognisable (*i.e.* morphologically distinct), and
- ii. geographically or ecologically distinct.

D The taxon must be endangered in Great Britain, or likely to become so unless conservation measures are taken, and/or be subject to an international obligation for protection.

One or more of the following may indicate that a taxon is or may become endangered:

- i. it is included in a JNCC-approved British Red Data Book as *Extinct*, *Endangered* or *Vulnerable* (or, in Red Lists drawn up using the recently revised IUCN criteria, as *Extinct in the Wild*, *Critically Endangered*, *Endangered* or *Vulnerable*);
- ii. it has been well searched for but is known from only a single locality;
- iii. it is confined to a particularly threatened habitat. The extent or quality of the habitat is being significantly reduced or is likely to become significantly reduced, thus threatening the survival of the organism;
- iv. it is rapidly declining in population, number of localities occupied or

range. Indicative would be at least 50% decline observed, estimated inferred or suspected in the last 20 years, or a decline of at least 50% projected, inferred or suspected to be likely in the near future. The decline must transcend normal fluctuations;

- v. it is endangered, or likely to become endangered through being targeted for exploitation or killing for commercial reasons and/or through being particularly attractive to collectors.

International obligations apply to a taxon which is:

- vi. naturally resident and listed on Appendices I, II or III of the Bern Convention; Annexes II, IV or V of the EC Habitats and Species Directive; Appendix I of the Bonn Convention (unless derogations are in force);
and/or
- vii. endemic to Great Britain and included in a JNCC-approved British Red List.

Decision criteria

An animal or plant taxon would be recommended for listing on the relevant Schedule only if scheduling has the potential to afford significant benefit to it, thus helping to arrest a decline or to facilitate an increase in population size, number of localities occupied or range. Potential benefits to be gained from scheduling are:

- i. protection of animals at risk from persecution or other intentional killing or injuring;
- ii. protection of animals or plants from collecting, where this is a problem or is likely to become one;
- iii. protection of structures or places which animals use for shelter or protection (including breeding sites or other essential elements of the habitat);
- iv. protection of animals from intentional or reckless disturbance;
- v. protection of plants from intentional damage or destruction;
- vi. protection of animals or plants from currently or potentially damaging trade, or other forms of exploitation.

ANNEX 2 Species recommended by JNCC for addition to Schedules 5 and 8 for the first consultation for the Fifth Quinquennial Review

Species	Source of recommendation	UK BAP action	Reasons for addition
<i>Calicium corynellum</i> Rock Nail (a lichenised fungus)	UK BAP Review	The maintenance of the very precise microhabitat requires careful site management, and restrictions to practices, that might otherwise be considered standard. None of the sites have protection, and all of the populations are fragile and sensitive. It may benefit from either site designation or legal protection through scheduling.	The species is severely threatened in Great Britain, and many of the threats are due to direct human pressure. None of the sites are currently designated as SSSIs.
<i>Cobitis taenia</i> Spined Loach	UK BAP Review	Add to Wildlife & Countryside Act Schedule 5.	Species is threatened and may benefit from legal protection
<i>Epipactis sancta</i> Lindisfarne Helleborine	UK BAP Review Natural England staff	Consider (following 1 above) listing on Schedule 8 of the Wildlife and Countryside Act (1981).	It is clearly a threatened plant, and direct human pressures are increasing. Despite occurring within a NNR, it is not being protected against trampling. Visitor pressure is extremely high, and it is not possible to control access to the population.
<i>Lobaria pulmonaria</i> Tree Lungwort (a lichenised fungus)	SNH staff	This species is very sensitive to air pollution. Intensive woodland management is also detrimental, since the low recruitment and colonisation rate requires continuity of growth. Habitat loss has also caused decline. New threat is commercial collection.	<i>Consulting on addition with respect to Section 13(2) Sale only.</i> Recently there is a new threat of commercial collection; collectors wish to harvest the species for use in Chinese Medicine.
<i>Weissia multicapsularis</i> Many-fruited Beardless-moss	UK BAP Review	The largest population in Britain (and the World) is unprotected and priority should be given to designation as SSSI and consideration given to addition to Schedule 8 of the W&C Act.	The largest population is unprotected, comments on the benefits likely to accrue to this species from scheduling are invited.

ANNEX 3 Species identified within UK BAP, but not recommended for addition to Schedules 5 and 8 for the first consultation for the Fifth Quinquennial Review

Species	Source of recommendation	UK BAP action	Reasons
<i>Anguilla anguilla</i> European Eel	UK BAP Review	Ensure reasonable escapement for conservation from all fisheries.	This is not a legal protection recommendation that can be delivered by Schedule 5
<i>Erinaceus europaeus</i> Hedgehog	UK BAP Review	Investigate the effect on populations of killing of hedgehogs by gamekeepers (several thousand per year). If necessary, improve legal protection. Clarify and publicise legal obligations facing trappers likely to kill or injure hedgehogs in traps set for other species.	Does not qualify for addition to Schedule 5: not endangered.
<i>Lepus timidus</i> Mountain Hare	UK BAP Review	Subject to the success of the above actions, review the legal status of the mountain hare.	Await outcome of other actions before legal status to be considered in line with UK BAP recommendation.
<i>Mitella pollicipes</i> Gooseneck Barnacle	UK BAP Review	Appropriate legislation to prevent collection (collected elsewhere in Europe for food).	No evidence that this species has been collected in Britain for food or any other purpose.
<i>Phoca vitulina</i> Common Seal	UK BAP Review	Enforce restrictions on culling to ensure population levels are not adversely affected.	This is delivered by separate legislation in England & Wales and Scotland, not by Schedule 5.
<i>Salvelinus alpinus</i> Arctic Charr	UK BAP Review	Introduce a complete ban on the import of alien stocks from abroad. These threaten the genetic integrity of native Arctic Charr.	This ban on the import of alien stocks cannot be achieved by use of Schedule 5
<i>Alchemilla micans</i> A Lady's-mantle	UK BAP Review	Ensure statutory protection for the main population of this species.	Site protection measures are most likely to benefit this species; potential collection risk is not currently perceived as a threat.
<i>Asparagus officinalis</i> subsp. <i>prostratus</i> Wild Asparagus	UK BAP Review	Given European endemic status, and the considerable threats to populations in England and Wales, consider legal protection (Schedule 8).	There are no obvious benefits that would accrue to the species through legal protection. It is not under threat from collection, intentional damage or trade. Many of the sites are SSSIs, and the species benefits from work under UK BAP.

Species	Source of recommendation	UK BAP action	Reasons
<i>Gentianella anglica</i> Early Gentian	UK BAP Review	Establish through thorough genetic research and other methods the genuine taxonomic status of the British plant. If it is an endemic taxon afford it full protection as appropriate.	This species is already listed on Schedule 8.
<i>Otanthus maritimus</i> Cottonweed	UK BAP Review	Consider (following 1 above) listing on Schedule 8 of the Wildlife and Countryside Act (1981).	Currently, cottonweed does not fulfil the eligibility criteria for Schedule 8, in that it is extinct and there is not a re-establishment programme in place. The need for scheduling can be considered if and when it is re-established. This agrees with the UK BAP action.
<i>Philonotis marchica</i> Bog Apple-moss	UK BAP Review	The threat to <i>Philonotis</i> arises principally from direct human impacts within its urban environment. However, designation of its sites as SSSIs is probably not appropriate in this environment. Options for protection are 1) ensuring that the local authority takes full account of the species in planning decisions, or 2) Schedule 8 protection.	Site protection measures are most likely to benefit this species; potential collection risk is not currently perceived as a threat.

ANNEX 4 Species recommended for removal by JNCC from Schedules 5 and 8 for the first consultation for the Fifth Quinquennial Review

Species	Current legal status	Reason for proposed removal
<i>Theidea smaragdaria</i> Essex Emerald Moth	Fully protected Schedule 5	Not seen in wild since 1991 despite specific targeted searches of all known sites. Larval biology well known, hence not likely to be overlooked. No captive British stock remains for use in re-establishment.
<i>Bryum mammillatum</i> Dune Thread-moss	Fully protected Schedule 8	Now regarded as not distinct from <i>Bryum warneum</i> a UK BAP Priority Species not proposed for legal protection
<i>Bryum neodamense</i> Long-leaved Thread-moss	Fully protected Schedule 8	Now regarded as not distinct from <i>Bryum pseudotriquetrum</i> a common species throughout Britain.
<i>Dactylorhiza lapponica</i> Lapland Marsh-orchid	Fully protected Schedule 8	Now regarded as not distinct from the widespread (not threatened) <i>Dactylorhiza traunsteineri</i> Narrow-leaved Marsh-orchid
<i>Epipactis youngiana</i> Young's Helleborine	Fully protected Schedule 8	Now regarded as not distinct from the widespread (not threatened) <i>Epipactis helleborine</i> Broad-leaved Helleborine

NOT recommended for removal, despite a significant taxonomic change, is *Lecanactis hemisphaerica*. Consultees are invited to comment on the proposal to retain this taxon as *Lecanographa grumulosa* f. *hemisphaerica*.

ANNEX 5 Species other than birds specially protected under the Wildlife and Countryside Act, 1981

SCHEDULE 5 (ANIMALS)

Scientific name	English name	Sections of Act cited where complete protection is not afforded	Year scheduled
Mammals			
<i>Arvicola terrestris</i>	Water vole	Damage/destruction of place of shelter/protection S.9(4)(a) and disturbance while in a place of shelter S.9(4)(b) only	1998
		Full protection, with addition of killing, injuring & taking S.9(1), possession S.9(2), sale S.9(5a,b)	2008 England only
Cetacea	All dolphins, porpoises, whales		<i>Tursiops truncatus</i> & <i>Delphinus delphis</i> - 1981; rest - 1988
<i>Felis silvestris</i>	Wildcat		1988
<i>Lutra lutra</i>	Otter		1981
<i>Martes martes</i>	Pine marten		1988
<i>Muscardinus avellanarius</i>	Dormouse		1988
<i>Odobenus rosmarus</i>	Walrus		1988
<i>Sciurus vulgaris</i>	Red squirrel		1981
Vespertilionidae and Rhinolophidae	All bats		1981
Reptiles			
<i>Anguis fragilis</i>	Slow worm	Killing & injuring S.9(1) (part); sale S.9(5)	S.9(5) - 1981; S.9(1) - 1988
Cheloniidae and Dermochelyidae	All turtles		1988
<i>Coronella austriaca</i>	Smooth snake		1981
<i>Lacerta agilis</i>	Sand lizard		1981
<i>Lacerta vivipara</i>	Viviparous lizard	Killing & injuring S.9(1) (part); sale S.9(5)	S.9(5) - 1981; S.9(1) - 1988
<i>Natrix natrix</i>	Grass snake	Killing & injuring S.9(1) (part); sale S.9(5)	S.9(5) - 1981; S.9(1) - 1988
<i>Vipera berus</i>	Adder	Killing & injuring S.9(1) (part); sale S.9(5)	S.9(5) - 1981; S.9(1) - 1991
Amphibians			
<i>Bufo bufo</i>	Common toad	Sale only S.9(5)	1981
<i>Bufo calamita</i>	Natterjack toad		1981
<i>Rana temporaria</i>	Common frog	Sale only S.9(5)	1981
<i>Triturus cristatus</i>	Warty (great crested) newt		1981
<i>Triturus helveticus</i>	Palmate newt	Sale only S.9(5)	1981
<i>Triturus vulgaris</i>	Smooth newt	Sale only S.9(5)	1981

Scientific name	English name	Sections of Act cited where complete protection is not afforded	Year scheduled
Fish			
<i>Acipenser sturio</i>	Sturgeon		1992
<i>Alosa alosa</i>	Allis shad	Killing, injuring & taking S.9(1), damage/destruction of place of shelter/protection (4)(a)	S.9(1) - 1991, S.9(4)(a) - 1998
<i>Alosa fallax</i>	Twaite shad	Damage/destruction of place of shelter/protection S.9(4)(a) only	1998
<i>Cetorhinus maximus</i>	Basking shark		1998
<i>Coregonus albula</i>	Vendace		1988
<i>Coregonus lavaretus</i>	Whitefish		1988
<i>Gobius cobitis</i>	Giant goby		1998
<i>Gobius couchii</i>	Couch's goby		1998
<i>Hippocampus guttulatus</i>	Spiny Seahorse		2008 England only
<i>Hippocampus hippocampus</i>	Short-snouted Seahorse		2008 England only
<i>Lota lota</i>	Burbot		1981
<i>Squatina squatina</i>	Angel Shark	Killing, injuring & taking S.9(1)	2008 England only
Butterflies			
<i>Apatura iris</i>	Purple emperor	Sale only S.9(5)	1989
<i>Argynnis adippe</i>	High brown fritillary		1992 (previously sale only)
<i>Aricia artaxerxes</i>	Northern brown argus	Sale only S.9(5)	1989
<i>Boloria euphrosyne</i>	Pearl-bordered fritillary	Sale only S.9(5)	1989
<i>Carterocephalus palaemon</i>	Chequered skipper	Sale only S.9(5)	1989
<i>Coenonympha tullia</i>	Large heath	Sale only S.9(5)	1989
<i>Cupido minimus</i>	Small blue	Sale only S.9(5)	1989
<i>Erebia epiphron</i>	Mountain ringlet	Sale only S.9(5)	1989
<i>Eurodryas aurinia</i>	Marsh fritillary	Sale only S.9(5) Full protection	S.9(5) - 1989 1998
<i>Hamearis lucina</i>	Duke of Burgundy	Sale only S.9(5)	1989
<i>Hesperia comma</i>	Silver-spotted	Sale only S.9(5)	1989
<i>Leptidea sinapis</i>	Wood white	Sale only S.9(5)	1989
<i>Lycaena dispar</i>	Large copper	Sale only S.9(5) Full protection	S.9(5) - 1989 1998
<i>Lysandra bellargus</i>	Adonis blue	Sale only S.9(5)	1989
<i>Lysandra coridon</i>	Chalkhill blue	Sale only S.9(5)	1989
<i>Maculinea arion</i>	Large blue		1981
<i>Melitaea cinxia</i>	Glanville fritillary	Sale only S.9(5)	1989
<i>Meliccta athalia</i> (<i>Melitaea athalia</i>)	Heath fritillary		1981
<i>Nymphalis polychloros</i>	Large tortoiseshell	Sale only S.9(5)	1989
<i>Papilio machaon</i>	Swallowtail		1981
<i>Plebejus argus</i>	Silver-studded blue	Sale only S.9(5)	1989
<i>Strymonidia pruni</i>	Black hairstreak	Sale only S.9(5)	1989
<i>Strymonidia w-album</i>	White-letter hairstreak	Sale only S.9(5)	1989
<i>Thecla betulae</i>	Brown hairstreak	Sale only S.9(5)	1989
<i>Thymelicus acteon</i>	Lulworth skipper	Sale only S.9(5)	1989

Scientific name	English name	Sections of Act cited where complete protection is not afforded	Year scheduled
Moths			
<i>Acosmetia caliginosa</i>	Reddish buff		1981
<i>Bembecia chrysidiformis</i>	Fiery clearwing		1998
<i>Gortyna borelii</i>	Fisher's estuarine moth		1998
<i>Hadena irregularis</i>	Viper's bugloss		1988
		Removed, believed extinct	1998
<i>Pareulype berberata</i>	Barberry carpet		1981
<i>Siona lineata</i>	Black-veined		1981
<i>Thalera fimbrialis</i>	Sussex emerald		1992
<i>Thetidia smaragdaria</i>	Essex emerald		1981
<i>Zygaena viciae</i>	New Forest burnet		1981
Beetles			
<i>Chrysolina cerealis</i>	Rainbow leaf beetle		1981
<i>Curimopsis nigrita</i>	Mire pill beetle	Damage/destruction of place of shelter/protection S.9(4)(a) only	1992
<i>Graphoderus zonatus</i>	Water beetle		1992
<i>Hydrochara caraboides</i>	Lesser silver water beetle		1992
<i>Hypebaeus flavipes</i>	Beetle		1992
<i>Limoniscus violaceus</i>	Violet click beetle		1988
<i>Lucanus cervus</i>	Stag beetle	Sale only S.9(5)	1998
<i>Paracymus aeneus</i>	Water beetle		1992
Hemipteran bugs			
<i>Cicadetta montana</i>	New Forest cicada		1988
Crickets			
<i>Decticus verrucivorus</i>	Wart-biter		1981
<i>Gryllotalpa gryllotalpa</i>	Mole cricket		1981
<i>Gryllus campestris</i>	Field cricket		1981
Dragonflies			
<i>Aeshna isosceles</i>	Norfolk aeshna		1981
<i>Coenagrion mercuriale</i>	Southern damselfly		1998
Spiders			
<i>Dolomedes plantarius</i>	Fen raft spider		1981
<i>Eresus niger (cinnaberinus)</i>	Ladybird spider		1981
Crustaceans			
<i>Austropotamobius pallipes</i>	Atlantic stream (white-clawed) crayfish	Taking S.9(1) (part); sale S.9(5)	1988
<i>Chirocephalus diaphanus</i>	Fairy shrimp		1988
<i>Gammarus insensibilis</i>	Lagoon sand shrimp		1988
<i>Triops cancriformis</i>	Apus		1988

Scientific name	English name	Sections of Act cited where complete protection is not afforded	Year scheduled
Sea-mats			
<i>Victorella pavida</i>	Trembling sea-mat		1988
Molluscs			
<i>Atrina fragilis</i>	Fan mussel	Killing & injuring S.9(1); possession S.9(2); sale S.9(5)	1998
<i>Caecum armoricum</i>	De Folin's lagoon snail		1992
<i>Catinella arenaria</i>	Sandbowl snail		1981
<i>Helix pomatia</i>	Roman Snail	Killing, injuring & taking S.9(1), possession S.9(2), sale S.9(5a,b)	2008 England only
<i>Margaritifera margaritifera</i>	Pearl mussel	Killing & injuring S.9(1) (part) Full protection	S.9(1) - 1991 1998
<i>Monacha cartusiana</i>	Carthusian snail	Removed from Schedule 5	1981 1988
<i>Myxas glutinosa</i>	Glutinous snail		1981
<i>Paludinella littorina</i>	Lagoon snail		1992
<i>Tenellia adspersa</i>	Lagoon sea slug		1992
<i>Thyasira gouldi</i>	Northern hatchet-shell		1992
Annelid worms			
<i>Alkmaria romijni</i>	Tentacled lagoon-worm		1992
<i>Armandia cirrhosa</i>	Lagoon sandworm		1988
<i>Hirudo medicinalis</i>	Medicinal leech		1988
Sea anemones and allies			
<i>Clavopsella navis</i>	Marine hydroid		1998
<i>Edwardsia ivelli</i>	Ivell's sea anemone		1988
<i>Eunicella verrucosa</i>	Pink sea-fan	Killing, injuring & taking S.9(1); possession S9(2); sale S.9(5)	1992
<i>Nematostella vectensis</i>	Starlet sea anemone		1988

SCHEDULE 8 (PLANTS)

Scientific name	English name	Year scheduled
Vascular plants		
<i>Ajuga chamaepitys</i>	Ground pine	1992
<i>Alisma gramineum</i>	Ribbon-leaved water-plantain	1981
<i>Allium sphaerocephalon</i>	Round-headed leek	1981
<i>Althaea hirsuta</i>	Rough marsh-mallow	1981
<i>Alyssum alyssoides</i>	Small alison	1981
<i>Apium repens</i>	Creeping marshwort	1988
<i>Arabis alpina</i>	Alpine rock-cress	1988
<i>Arabis scabra (stricta)</i>	Bristol rock-cress	1988
<i>Arenaria norvegica</i>	Norwegian sandwort	1981
<i>Artemisia campestris</i>	Field wormwood	1981
<i>Atriplex pedunculata</i>	Stalked orache	1992
<i>(Halimione pedunculata)</i>		
<i>Bupleurum baldense</i>	Small hare's-ear	1981
<i>Bupleurum falcatum</i>	Sickle-leaved hare's-ear	1981
<i>Carex depauperata</i>	Starved wood-sedge	1981
<i>Centaureum tenuiflorum</i>	Slender centaury	1992
<i>Cephalanthera rubra</i>	Red helleborine	1981
<i>Chenopodium vulvaria</i>	Stinking goosefoot	1988
<i>Cicerbita alpina</i>	Alpine sow-thistle	1981
<i>Clinopodium menthifolium</i>	Wood calamint	1981
<i>(Calamintha sylvatica)</i>		
<i>Coincya wrightii</i>	Lundy cabbage	1988
<i>(Rhynchosinapis wrightii)</i>		
<i>Corrigiola litoralis</i>	Strapwort	1988
<i>Cotoneaster integerrimus</i>	Wild cotoneaster	1981
<i>(Cotoneaster cambrica)</i>		
<i>Crassula aquatica</i>	Pigmyweed	1988
<i>Crepis foetida</i>	Stinking hawk's-beard	1988
<i>Cynoglossum germanicum</i>	Green hound's-tongue	1988
<i>Cyperus fuscus</i>	Brown galingale	1981
<i>Cypripedium calceolus</i>	Lady's-slipper	1981
<i>Cystopteris dickieana</i>	Dickie's bladder fern	1981
<i>Dactylorhiza lapponica</i>	Lapland marsh-orchid	1992
<i>Damasonium alisma</i>	Starfruit	1981
<i>Dianthus armeria</i>	Deptford pink	1998
		England and Wales only
<i>Dianthus gratianopolitanus</i>	Cheddar pink	1981
<i>Diapensia lapponica</i>	Diapensia	1981
<i>Eleocharis parvula</i>	Dwarf spike-rush	1998
<i>Epipactis youngiana</i>	Young's helleborine	1988
<i>Epipogium aphyllum</i>	Ghost orchid	1981
<i>Equisetum ramosissimum</i>	Branched horsetail	1988
<i>Erigeron borealis</i>	Alpine fleabane	1988
<i>Eriophorum gracile</i>	Slender cottongrass	1988
<i>Euphorbia peplis</i>	Purple spurge	1981
		Removed 1992
<i>Eryngium campestre</i>	Field eryngo	1981
<i>Filago lutescens</i>	Red-tipped cudweed	1988
<i>Filago pyramidata</i>	Broad-leaved cudweed	1992
<i>Fumaria reuteri (martinii)</i>	Martin's ramping-fumitory	1988
<i>Gagea bohemica</i>	Early star of Bethlehem	1988
<i>Gentiana nivalis</i>	Alpine gentian	1981
<i>Gentiana verna</i>	Spring gentian	1981

Scientific name	English name	Year scheduled
<i>Gentianella anglica</i>	Early gentian	1992
<i>Gentianella ciliata</i>	Fringed gentian	1988
<i>Gentianella uliginosa</i>	Dune gentian	1992
<i>Gladiolus illyricus</i>	Wild gladiolus	1981
<i>Gnaphalium luteoalbum</i>	Jersey cudweed	1981
<i>Hieracium attenuatifolium</i>	Weak-leaved hawkweed	1992
<i>Hieracium northroense</i>	Northroe hawkweed	1992
<i>Hieracium zetlandicum</i>	Shetland hawkweed	1992
<i>Himantoglossum hircinum</i>	Lizard orchid	1981
<i>Homogyne alpina</i>	Purple colt's-foot	1988
<i>Hyacinthoides non-scripta</i>	Bluebell	1998 S.13(2) sale only
<i>Lactuca saligna</i>	Least lettuce	1981
<i>Leersia oryzoides</i>	Cut-grass	1998
<i>Limonium paradoxum</i>	St. David's sea lavender	1981
		Removed 1992
<i>Limonium recervum</i>	Recurved sea lavender	1981
		Removed 1992
<i>Limosella australis</i>	Welsh mudwort	1992
<i>Liparis loeselii</i>	Fen orchid	1981
<i>Lloydia serotina</i>	Snowdon lily	1981
<i>Luronium natans</i>	Floating water-plantain	1992
<i>Lychnis alpina</i>	Alpine catchfly	1981
<i>Lythrum hyssopifolia</i>	Grass-poly	1988
<i>Melampyrum arvense</i>	Field cow-wheat	1981
<i>Mentha pulegium</i>	Pennyroyal	1988
<i>Minuartia stricta</i>	Teesdale sandwort	1981
<i>Najas flexilis</i>	Slender naiad	1992
<i>Najas marina</i>	Holly-leaved naiad	1988
<i>Ononis reclinata</i>	Small restharrow	1988
<i>Ophioglossum lusitanicum</i>	Least adder's-tongue	1988
<i>Ophrys fuciflora</i>	Late spider-orchid	1981
<i>Ophrys sphegodes</i>	Early spider-orchid	1981
<i>Orchis militaris</i>	Military orchid	1981
<i>Orchis simia</i>	Monkey orchid	1981
<i>Orobanche artemisiae-campestris</i>	Oxtongue broomrape	1981
(<i>Orobanche loricata</i>)		
(<i>Orobanche picridis</i>)		
<i>Orobanche caryophyllacea</i>	Bedstraw broomrape	1981
<i>Orobanche reticulata</i>	Thistle broomrape	1981
<i>Petrorhagia nanteuilii</i>	Childing pink	1981
<i>Phyllodoce caerulea</i>	Blue heath	1981
<i>Phyteuma spicatum</i>	Spiked rampion	1992
<i>Polygonatum verticillatum</i>	Whorled Solomon's-seal	1981
<i>Polygonum maritimum</i>	Sea knotgrass	1981
<i>Potentilla rupestris</i>	Rock cinquefoil	1981
<i>Pulicaria vulgaris</i>	Small fleabane	1988
<i>Pyrus cordata</i>	Plymouth pear	1981
<i>Ranunculus ophioglossifolius</i>	Adder's-tongue spearwort	1981
<i>Rhinanthus serotinus</i>	Greater yellow-rattle	1981
<i>Romulea columnae</i>	Sand crocus	1988
<i>Rumex rupestris</i>	Shore dock	1992
<i>Salvia pratensis</i>	Meadow clary	1992
<i>Saxifraga cernua</i>	Drooping saxifrage	1981
<i>Saxifraga cespitosa</i>	Tufted saxifrage	1981
<i>Saxifraga hirculus</i>	Yellow marsh-saxifrage	1992
<i>Scirpus triqueter</i>	Triangular club-rush	1981
(<i>Scirpus triquetrus</i>)		
<i>Scleranthus perennis</i>	Perennial knawel	1981

Scientific name	English name	Year scheduled
<i>Scorzonera humilis</i>	Viper's-grass	1988
<i>Selinum carvifolia</i>	Cambridge milk-parsley	1988
<i>Senecio paludosus</i>	Fen ragwort	1988
<i>Stachys alpina</i>	Limestone woundwort	1981
<i>Stachys germanica</i>	Downy woundwort	1981
<i>Tephrosia integrifolia</i> subspecies <i>maritima</i>	South Stack fleawort	1998
<i>Teucrium botrys</i>	Cut-leaved germander	1988
<i>Teucrium scordium</i>	Water germander	1981
<i>Thlaspi perfoliatum</i>	Perfoliate penny-cress	1992
<i>Trichomanes speciosum</i>	Killarney fern	1981
<i>Veronica spicata</i>	Spiked speedwell	1981
<i>Veronica triphyllos</i>	Fingered speedwell	1988
<i>Viola persicifolia</i>	Fen violet	1981
<i>Woodsia alpina</i>	Alpine woodsia	1981
<i>Woodsia ilvensis</i>	Oblong woodsia	1981
Mosses		
<i>Acaulon triquetrum</i>	Triangular pygmy-moss	1992
<i>Anomodon longifolius</i>	Long-leaved anomodon	1998
<i>Bartramia stricta</i>	Rigid apple-moss	1992
<i>Bryum mamillatum</i>	Dune thread-moss	1992
<i>Bryum neodamense</i>	Long-leaved threadmoss	1998
<i>Bryum schleicheri</i>	Schleicher's thread-moss	1992
<i>Buxbaumia viridis</i>	Green shield-moss	1992
<i>Cryphaea lamyana</i>	Multi-fruited river-moss	1992
<i>Cyclodictyon laetevirens</i>	Bright-green cave-moss	1992
<i>Desmatodon cernuus</i>	Flamingo moss	1998
<i>Didymodon cordatus</i> (<i>Barbula cordata</i>)	Cordate beard-moss	1992
<i>Didymodon glaucus</i> (<i>Barbula glauca</i>)	Glaucous beard-moss	1992
<i>Ditrichum cornubicum</i>	Cornish path-moss	1992
<i>Grimmia unicolor</i>	Blunt-leaved grimmia	1992
<i>Hamatocaulis</i> (<i>Drepanocladus vernicosus</i>)	Slender green feather-moss	1992
<i>Hygrohypnum polare</i>	Polar feather-moss	1998
<i>Hypnum vaucheri</i>	Vaucher's feather-moss	1992
<i>Micromitrium tenerum</i>	Millimetre moss	1992
<i>Mielichhoferia mielichhoferi</i>	Alpine copper-moss	1992
<i>Orthotrichum obtusifolium</i>	Blunt-leaved bristle-moss	1992
<i>Plagiothecium piliferum</i>	Hair silk-moss	1992
<i>Rhynchostegium rotundifolium</i>	Round-leaved feather-moss	1992
<i>Saelania glaucescens</i>	Blue dew-moss	1992
<i>Scorpidium turgescens</i>	Large yellow feather-moss	1992
<i>Sphagnum balticum</i>	Baltic bog-moss	1992
<i>Thamnobryum angustifolium</i>	Derbyshire feather-moss	1992
<i>Zygodon forsteri</i>	Knothole moss	1992
<i>Zygodon gracilis</i>	Nowell's limestone-moss	1992

Liverworts

Scientific name	English name	Year scheduled
<i>Adelanthus lindenbergianus</i>	Lindenberg's leafy liverwort	1992
<i>Geocalyx graveolens</i>	Turpswort	1992
<i>Gymnomitrium apiculatum</i>	Pointed frostwort	1992
<i>Jamesoniella undulifolia</i>	Marsh earwort	1992
<i>Lophozia (Leiocolea) rutheana</i>	Norfolk flapwort	1992
<i>Marsupella profunda</i>	Western rustwort	1992
<i>Petalophyllum ralfsii</i>	Petalwort	1992
<i>Riccia bifurca</i>	Lizard crystalwort	1992
<i>Southbya nigrella</i>	Blackwort	1992

Fungi

<i>Battarraea phalloides</i>	Sandy stilt puffball	1998
<i>Boletus regius</i>	Royal bolete	1998
<i>Buglossoporus pulvinus</i>	Oak polypore	1998
<i>Hericinum erinaceum</i>	Hedgehog fungus	1998

Lichens

<i>Alectoria ochroleuca</i>	Alpine sulphur-tresses	1998
<i>Bryoria furcellata</i>	Forked hair-lichen	1992
<i>Buellia asterella</i>	Starry breck-lichen	1992
<i>Caloplaca luteoalba</i>	Orange-fruited elm-lichen	1992
<i>Caloplaca nivalis</i>	Snow caloplaca	1992
<i>Catapyrenium psoromoides</i>	Tree catapyrenium	1992
<i>Catillaria laureri</i>	Laurer's catillaria	1992
<i>Catolechia wahlenbergii</i>	Goblin lights	1998
<i>Cladonia convoluta</i>	Convolutated Cladonia	1998
<i>Cladonia stricta</i>	Upright mountain-cladonia	1992
<i>Collema dichotomum</i>	River jelly-lichen	1992
<i>Enterographa elaborata</i>	New Forest beech-lichen	1998
<i>Gyalecta ulmi</i>	Elm gyalecta	1992
<i>Heterodermia leucomelos</i>	Ciliate strap-lichen	1992
<i>Heterodermia propagulifera</i>	Coralloid rosette-lichen	1992
<i>Lecanactis hemisphaerica</i>	Churchyard lecanactis	1992
<i>Lecanora achariana</i>	Tarn lecanora	1992
<i>Lecidea inops</i>	Copper lecidea	1992
<i>Nephroma arcticum</i>	Arctic kidney-lichen	1992
<i>Pannaria ignobilis</i>	Caledonian pannaria	1992
<i>Parmelia minarum</i>	New Forest parmelia	1992
<i>Parmentaria chilensis</i>	Oil-stain parmentaria	1992
<i>Peltigera lepidophora</i>	Ear-lobed dog-lichen	1992
<i>Pertusaria bryontha</i>	Alpine moss-pertusaria	1992
<i>Physcia tribacioides</i>	Southern grey physcia	1992
<i>Pseudocyphellaria lacerata</i>	Ragged pseudocyphellaria	1992
<i>Psora rubiformis</i>	Rusty alpine psora	1992
<i>Solenopsora liparina</i>	Serpentine solenopsora	1992
<i>Squamarina lentigera</i>	Scaly breck-lichen	1992
<i>Teloschistes flavicans</i>	Golden hair-lichen	1992

Stoneworts

<i>Chara canescens</i>	Bearded stonewort	1992
<i>Lamprothamnium papulosum</i>	Foxtail stonewort	1988

EXPLANATORY NOTES

Protection for wild animals on Schedule 5 of the Wildlife and Countryside Act, 1981

- Section 9 Part 1 -intentional killing, injuring, taking
- Part 2 -possession or control (live or dead animal, part or derivative)
- Part 4 (a) -damage to, destruction of, obstruction of access to any structure or place used by a scheduled animal for shelter or protection
- Part 4 (b) -disturbance of animal occupying such a structure or place
- Part 5 (a) -selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative)
- Part 5 (b) -advertising for buying or selling such things

Protection for wild plants afforded by the Wildlife and Countryside Act, 1981

- Section 13 Part 1 (a) -intentional picking, uprooting or destruction of plants on Schedule 8
- Part 1 (b) -unauthorised intentional uprooting of any wild plant not included in Schedule 8
- Part 2 (a) -selling, offering for sale, possessing or transporting for the purpose of sale, any plant (live or dead, part or derivative) on Schedule 8
- Part 2 (b) -advertising for buying or selling such things

ANNEX 6 Proforma for submitting a proposal to amend Schedule 5 or Schedule 8 at the Fifth Quinquennial Review of the Wildlife and Countryside Act, 1981

Recommendation for amendment to Schedule 5 or Schedule 8 of the Wildlife and Countryside Act, 1981

Type of organism:

Scientific name:

English name:

Distribution in Great Britain

Distribution elsewhere

Status in Britain

Habitat

Threats

Recommendation

Justification for recommendation

Benefits which would accrue from acceptance of the recommendation

Reference

ANNEX 7 List of organisations included in the first consultation

Amateur Entomologists' Society	Froglife
Anglers' Conservation Association	Game & Wildlife Conservation Trust
ARG UK (Amphibian and Reptile Groups UK)	Green Alliance
Association for the Protection of Rural Scotland	Greenpeace UK
Association of British Fungus Groups	Herpetological Conservation Trust
Badger Trust	Institute of Biology
Balfour Browne Club	International Fund for Animal Welfare
Bat Conservation Trust	International Wildlife Coalition Trust
Bees, Wasps, and Ants Recording Society	Invertebrate Link
Biological Records Centre	John Muir Trust
Botanical Society of the British Isles	Mammal Society
British Arachnological Society	Mammals Trust UK
British Association of Nature Conservationists (journal Ecos)	Marine Conservation Society (including MCS Scotland)
British Association for Shooting and Conservation	Mountaineering Council of Scotland
British Bryological Society	National Federation for Biological Recording
British Deer Society	National Museum of Wales
British Divers Marine Life Rescue	National Museum of Scotland: Natural Sciences
British Dragonfly Society	National Trust (including NT for North and South Wales)
British Ecological Society	National Trust for Scotland
British Entomological and Natural History Society	National Small Woods Association
British Hedgehog Preservation Society	Natural England
British Herpetological Society	Natural Environment Research Council
British Horse Society	Natural History Museum
British Isles Bee Breeders Association	Open Spaces Society
British Lichen Society	People's Trust for Endangered Species
British Myriapod and Isopoda Group	Plantlife
British Mycological Society	Plant Link UK (including Plant Link Scotland and Plant Link Wales)
British Naturalists' Association	Pond Conservation: the Water Habitats Trust
British Phycological Society	Pondlife
British Pteridological Society	Ramblers' Association
British Trust for Conservation Volunteers	Ramblers' Association Scotland
British Trust for Ornithology	Ramblers' Association Wales
Butterfly Conservation	Reforestation Scotland
Buglife – The Invertebrate Conservation Trust	Royal Botanic Garden Edinburgh
Byways and Bridleways Trust	Royal Botanic Gardens Kew
CABI Bioscience UK Centre	Royal Entomological Society
Campaign for the Protection of Rural Wales	Royal Society for the Protection of Birds
Care for the Wild	Royal Society for the Prevention of Cruelty to Animals
Conchological Society of Great Britain & Ireland	Scottish Council for National Parks
Council for National Parks	Scottish Countryside Rangers Association
Council for the Protection of Rural England	Scottish Environment Protection Agency
Countryside Council for Wales	Scottish Government
Countryside Management Association	Scottish Natural Heritage
Department for Environment, Food and Rural Affairs	Scottish Ornithologists' Club
Dipterists' Forum	Scottish Wild Land Group
Environment Agency	Seahorse Trust
Environmental Investigation Agency	Sea Shepherd
Fauna and Flora Preservation Society	Sea Watch Foundation
Field Studies Council	Shark Trust
Flora Locale	TRAFFIC International
Forest Research, Alice Holt Research Station	Vincent Wildlife Trust
Freshwater Biological Association	Welsh Assembly Government
FreshwaterLife	Welsh Historic Gardens Trust
Friends of the Earth	Whale and Dolphin Conservation Society
Friends of the Earth Scotland	
Friends of the Earth Wales	

Wildflower Society
Wildfowl and Wetlands Trust
Wildlife and Countryside Links
The Wildlife Trusts (The Royal Society of Wildlife
Trusts)
Woodland Trust
World Conservation Monitoring Centre
World Museum Liverpool
World Wide Fund for Nature - UK
Youth Hostels Association
Young People's Trust for the Environment and
Nature Conservation
Zoological Society of London