

BAP PRIORITY SPECIES AND HABITATS REVIEW 2005-6

PRELIMINARY ANALYSIS & CONSULTATION REPORT FOR FRESHWATER AND TERRESTRIAL HABITAT PROPOSALS

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Freshwater habitats:

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- d. Ponds

Terrestrial habitats:

- a. Mountain heaths
- b. Upland flushes and fens
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- a. Ancient and/or species-rich hedgerows
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1. Background

BRIG is undertaking a review of the lists of priority habitats and species, for the UK Biodiversity Partnership. Detailed guidance on the review process can be downloaded from the UK BAP website at <http://www.ukbap.org.uk/GenPageText.aspx?id=102>. Consultation over the first stage of the review was initiated in May 2005. This paper presents the submissions received in relation to the review for terrestrial and freshwater habitats (including non-marine coastal habitats), together with a preliminary analysis and comments for this consultation exercise by JNCC using the criteria and guidance established for the review by the Priority Species and Habitats Review Working Group (PSHRWG). This first stage is being conducted in parallel with the review for terrestrial and freshwater species. Marine habitats and species are being reviewed separately to a slightly later timetable.

There are two elements to this first stage of the terrestrial and freshwater habitats review: (i) identification of gaps in the series, i.e. possible new priority habitats; and (ii) changes to existing priority habitats. The outcome will be a provisional list of changes to the UK priority habitat series, **prior** to consideration of how their conservation needs should best be met. Although building on the earlier 'gaps review' carried out in 1999-2001 (the conclusions of which are presented in the Habitat Gaps Review (1999-2001) document at <http://www.ukbap.org.uk/GenPageText.aspx?id=103>), this included a requirement that priority status should only be considered for a particular habitat if the production of a separate UK HAP was seen as necessary. Certain important types were ruled out because it was felt that actions under existing HAPs or SAPs would suffice. This is **not** the approach being taken at this stage since it prejudices consideration of delivery mechanisms, consultation on which will be undertaken by BRIG later in 2006 following agreement on the priority lists.

The purpose of this paper is to:

- Present the submissions, our preliminary analysis against the review criteria, and subsequent comments to all habitat consultees;
- Seek input and comments on the proposals from specialists involved in the terrestrial and freshwater species review and other members of the PSHRWG.

Comments should be made to JNCC Habitats Advice Team by **Monday 17 April 2006** (email to ed.mountford@jncc.gov.uk). Responses will be collated for consideration by the PSHRWG on behalf of BRIG who will then make recommendations to the UK Biodiversity Standing Committee.

2. Responses to consultation

All relevant HAP steering groups were consulted over the review, together with inter-agency groups such as Lead Co-ordination Networks and other relevant parties (Annex 1). Species specialists were also made aware of the review and the guidance was available on the BAP website, to engage a wider audience. However, with the species and habitats reviews running in parallel, it was recognised that this would inevitably need to be an iterative process.

Ten proposals for new priority habitats have been received (Table 1). The proposal forms are attached as Annex 2 with any accompanying material available to download via the UKBAP website at: <http://www.ukbap.org.uk/GenPageText.aspx?id=103>. Consideration was also given to several other possibilities for which formal proposals have not been submitted. These are discussed in Sections 4.5 and 5.7.

Six proposals for changes to existing priority habitats were received either directly or via the UK BAP Targets review, which is being undertaken in parallel with this review. These proposals are listed in Table 2. Full details are given in Annex 3. Comments on several other habitats were also received.

Table 1. Proposals for new UK priority habitats (terrestrial and freshwater)

Proposed priority habitat	BAP broad habitat	Lead proposer
Active shingle rivers	Rivers and streams	Freshwater LCN
Headwaters	Rivers and streams	Freshwater LCN
Oligotrophic lakes	Standing waters and canals	Joint Lakes HAP Steering Group
Ponds of high ecological quality/conservation value	Standing waters and canals	Freshwater LCN
Mountain heaths	Montane	Upland LCN
Upland flushes and fens	Fen, marsh and swamp	Upland LCN
Natural upland rock and scree habitats	Inland rock	Upland LCN
Rock outcrops, mine spoil and river shingle rich in heavy metals	Inland rock	Lowland grassland LCN
Post-industrial sites of high nature conservation value	Inland rock	Urban habitat IAWG
Traditional orchards	Broadleaved, mixed and yew woodland	English Nature

Table 2. Proposals for changes to existing UK Priority habitats (terrestrial and freshwater)

BAP Priority habitat	Type of change proposed	Proposer
Cereal field margins	Change of name and widening of definition	HAP Steering Group
Ancient and/or species-rich hedgerows	Change of name and widening of definition	HAP Steering Group
Lowland wood pasture and parkland	Change of name and widening of definition	HAP Steering Group
Lowland heathland	Minor change of definition	HAP Steering Group
Lowland calcareous grassland	Minor change of definition	Lowland grassland HAP Steering Group

3. Assessment & generic conclusions

3.1. Assessing the proposals

A preliminary analysis has been made for each proposal using the criteria in the guidance and principles subsequently agreed by the PSHRWG. Boxes 1 and 2 list a series of questions which have been used to inform these analyses.

Box 1. Questions considered when assessing proposals for new priority habitats

General

- Is the justification convincing? (see ‘criteria’ below)
- Has a UK perspective been taken?
- Have appropriate groups/individuals been involved in developing the proposal?

Definition

- Is the description provided clear enough and the full scope of the habitat type clear?
- Is the priority habitat mappable with measurable quantitative or qualitative attributes to estimate the extent of the resource and for monitoring purposes? Could a definition be devised to compile an inventory?
- Is the description clearly linked to the justification against the criteria, i.e. related to its importance for nature conservation? Bearing in mind that a future action plan could be wider in scope than a priority habitat, to what extent does the definition include ‘non-priority’ elements and would it be feasible to exclude them from the definition?
- Is it clear what sets the habitat apart from other habitats? Does it overlap with other habitats and, if so, is it clear why? Is it at a consistent hierarchical level compared with other priority habitats? Does it fit within a single Broad Habitat and, if not, is there a sound reason?
- Is the proposed name clear, unambiguous and precise?

Distribution and extent

- Is there reasonable information about the distribution and extent? Has this been updated since the previous review (if applicable)?
- Are there other sources of data that might usefully inform on the distribution and extent?
- To what extent does the habitat occur within designated sites?

Qualifying criteria

- International obligations: Is the correspondence with international habitat types clear? Is the degree of importance clear, e.g. how extensive, context, etc.
- Risk: Are any data provided on this? Do they include data on recent trends? Which elements of risk apply: rarity, decline or threat?
- Key species: How comprehensively are these covered? What categories of conservation concern have been considered (BAP, RDB etc)? How thoroughly have species been surveyed in the habitat? Are all relevant species groups included? Is the relative importance of the habitat made clear compared to other semi-natural (priority) habitats?
- Functional importance: Is functional importance an issue of concern as a secondary qualifying criterion? Does the habitat complement other semi-natural (priority) habitats, as a resource for conserving wider-ranging species?

Box 2. Questions considered when assessing proposed changes to existing priority habitats

- Is the nature of the proposed change(s) clear? Are the benefits of the change clear and convincing? Are there any disadvantages?
- Have appropriate groups/individuals been involved in the proposal?
- Is the revised definition (if relevant) clearly linked to importance of the habitat for nature conservation – would it meet the criteria for new types? Bearing in mind that a future action plan could be wider in scope than a priority habitat, does the proposed change go beyond what could be considered to be a priority?
- Have implications for other habitats been considered, if so are these clear and justified?

3.2. Summary of generic conclusions

The conclusions from our preliminary analysis, including points of uncertainty, are summarised below and comments on these are invited. Several generic issues/areas of confusion emerged when assessing the submitted proposals, comments upon which are invited:

- **Confusion remains about the distinction between priority habitats and Habitat Action Plans (HAPs).** This first part of the review is being undertaken on the basis that Habitat Action Plans or other future implementation mechanisms could be wider in scope than priority habitats (though the prime objective would be to facilitate the conservation of priority habitats). This will be debated later in 2006 through BRIG. For example there might be a HAP for ‘Ponds’, ‘Hedgerows’ or ‘Arable Fields’ whilst having narrower definitions for the relevant priority habitats. Similarly a HAP might include more than one priority habitat, for example the proposal through the Targets review for a Woodlands HAP, encompassing a range of priority types, which would retain their individual priority status.
- **Reservations were expressed by some consultees about resource implications of new priority habitats.** Whilst this is obviously a practical concern, it is an issue to be addressed at the next stage when implementation mechanisms are reviewed. However it appears to have inhibited proper consideration and submission of proposals in certain cases.
- **Some degree of clarity and consistency is required with regard to the scope of habitats.** In general, the scope of priority habitats should sit comfortably within recognised broad habitat types, unless another arrangement makes good sense. Existing priority habitats should not, unless a good case can be made that important habitat has been omitted, be broadened. Definitions for priority habitats need to focus on value and priorities for nature conservation.
- **Some clarity and consistency is also required in naming priority habitats.** Many existing BAP priority habitats refer to recognised habitat types entirely (e.g. blanket bog, fens) or broad regional divisions (e.g. lowland meadows, upland oakwood). This is appropriate as much of the habitat referred to is included as priority habitat. In other cases, more specific terminology is employed to define a generally recognisable subset (mesotrophic lakes, ancient and/or species-rich hedgerows, native pine woodlands). The approach taken in reviewing the current proposals was that names need to be clear, unambiguous and precise to avoid misinterpretation, not least because they will be used in the public domain.
- **Recognition of the functional role of habitats is deserved.** This includes an appreciation of their role in connecting and supporting priority habitats, including in the face of climate change and other environmental pressures. However, this has been taken to be a secondary rather than a key criterion in determining if a habitat should be considered as a priority.
- **Some habitats/habitat features which could meet the qualifying criteria appear to be not or only partially accommodated in existing priority habitat definitions.** Some of these seem to be major omissions, whereas others could more readily be accommodated in existing definitions if these were revised (see Sections 4.5. and 5.7 for details). It is clear that some of these habitats deserve proper consideration by relevant experts, before their status within the BAP priority habitat series can be judged. In some cases, at least, all that may be necessary is that they are given explicit recognition within the priority habitat series. This could best be achieved as part of the BAP Habitats Manual (see next paragraph).
- **Some submissions propose only minor changes to help clarify/improve existing habitat definitions.** These will not result in significant changes to the scope of the existing priority habitat and should not require formal approval through the UK Biodiversity Partnership. A number of other such minor changes are also thought to be merited, and it is recommended that these are all addressed as part of the BAP Habitats Manual currently being developed by JNCC, within which a comprehensive and systematic review would be made of the scope of priority habitats.

4. Freshwater habitats –new priority types

4.1 Active shingle rivers

Background

This habitat proposal was agreed by the UK Targets Group in 2001 following wide consultation, discussion and revision, but approval was deferred until the present review. The proposal has been reviewed and updated by the Freshwater LCN in consultation with the environment agencies. The proposal form is included in Annex 2(a).

Comments on proposal for consultation exercise

- A strong justification for this proposal is presented, based on the three main criteria. It has the support of all the statutory conservation and environment agencies, as well as the ERS SAP Group.
- Active shingle rivers are numerous in the UK and of international importance. They encompass a major proportion of our representation of the Annex I type Water courses of plain to montane levels, as well as part of another habitat type.
- Active shingle rivers are very important for their invertebrate fauna of exposed river shingle (ERS). This includes a large number of BAP Priority species (for which there is currently a grouped SAP) and other rare species e.g. 180 ERS beetles are nationally rare or scarce. They are also internationally important for several Habitats Directive Annex II species, such as salmon *Salmo salar*, freshwater pearl mussel *Margaritifera margaritifera*, otter *Lutra lutra*, and lampreys *Petromyzon* spp.
- This habitat is at risk because human activities are interrupting important natural processes of erosion, sediment transport and deposition, on which the biota rely. Evidence indicates that engineering work leading to increased stabilisation or fossilisation of channels is common across the UK. Schemes to prevent bank erosion, to extract gravel for fisheries management, and to provide flood defences are part of a trend towards the prevention of channel change and increased human control over natural processes.
- Habitat destruction and deterioration have also put this habitat at risk. Although extensive long-term data are not available, studies also indicate significant losses of exposed shingle habitat on several river systems in the UK. Other threats include agricultural pollution (especially the use of pyrethroid sheep dips), acidification, and inappropriate introductions or stocking of fish.
- Only a limited part of the habitat occurs within designated sites, leaving much of it relatively unprotected and accordingly at significant risk.
- A detailed description of the habitat type is given, although correspondence with the JNCC river vegetation communities classification is not made clear. The difficulty of classifying rivers may mean that case-by-case judgements would have to be made for inventory purposes.
- The scope of the habitat is quite broad, though it seems to form a meaningful ‘unit’ which relates to the qualifying criteria. The intention is to include whole river systems, except for heavily-modified lower reaches that do not meet the description. There is some overlap with the proposal for Headwaters (see Section 4.2), and the proposal for Rock outcrops, mine spoil and river shingle rich in heavy metals (see Section 5.4), but this could be avoided by restricting the definitions accordingly. *Comments on this particular point are invited.*

4.2 Headwaters

Background

This habitat type has been put forward by the Freshwater LCN in consultation with the environment agencies. It was put forward in the previous gaps review but not taken forward at that time because it was considered too broad in scope. The proposal form is included in Annex 2(b).

Comments on proposal for consultation exercise

- Headwaters comprise a habitat type of high importance for nature conservation, which is at risk from a wide range of environmental threats. The proposal is clearly justified against the criteria and has general support from the statutory conservation and environment agencies, subject to concerns over the need to focus actions and prioritise at the implementation stage.
- Headwaters are known to be particularly important for aquatic macro-invertebrates, based on the limited surveys available; a high proportion of riverine species are more or less exclusive to headwaters and many of these are sufficiently rare to have national conservation status of some kind. Headwaters are also critically important for some key vertebrates e.g. salmon *Salmo salar*, water vole *Arvicola terrestris*.
- Headwaters contain habitats of international importance for nature conservation, including parts of two Annex I habitats - though primarily in the areas of overlap with other types (see below).
- Headwaters are at risk from a number of factors. In agricultural catchments, headwaters suffer a range of impacts caused by poor water quality whilst acidification is a serious problem in catchments with acidic soils and where rocks lack high buffering capacity. Physical modification and loss of marginal vegetation has affected a high proportion of headwaters especially in lowland areas. Although the degree of impact varies across the country there is sound evidence available for England, Scotland and Wales.
- The risk is made more significant because only a small proportion of headwaters are protected in designated sites, and it is unclear whether the Water Framework Directive will give headwaters sufficient protection.
- The functional importance of headwaters for all river systems is stressed as an important supporting factor for the case presented.
- The Headwaters proposal cuts across the usual 'ecological' classifications of river types. On the other hand, headwaters are a recognisable habitat feature with a related set of issues affecting them.
- The habitat is simply defined using an OS map-based definition, which is to a degree arbitrary, but intended to be pragmatic. This means that the uppermost sections of all watercourses in the UK are included, irrespective of their typology, ecological condition or value for biodiversity. However there is not a straightforward way to narrow the definition and the freshwater habitat specialists consider that prioritisation for action should be done at the implementation stage.
- As defined, Headwaters would overlap with the existing Chalk rivers priority habitat and two newly proposed priority types, Active shingle rivers (see Section 4.1) and metalliferous habitats (see Section 5.4). This could be remedied by exclusion of the overlap from one or other definitions. *Comments on the last three bullet points in particular are invited.*

4.3 Oligotrophic lakes

Background

This habitat proposal was agreed by the UK Targets Group in 2001 following wide consultation and discussion, but approval was deferred until the present review. The proposal has been reviewed by the Joint Lakes HAP Steering Group which has confirmed its support, subject to concerns which should be addressed at the implementation stage. The proposal form (which has not been updated) is included in Annex 2(c).

Comments on proposal for consultation exercise

- The proposal for a priority habitat for Oligotrophic lakes (including dystrophic lakes) is clearly justified against the criteria. It would complement the existing priority types for Mesotrophic lakes and Eutrophic standing waters, as well as the proposed Ponds priority habitat (see Section 4.4), and has support from the key freshwater organisations and specialists in the UK.
- This proposal clearly meets the ‘international obligation’ criterion for priority habitat status. It fills a major gap in representation of Habitats Directive Annex I habitats, including parts of four standing water types.
- Oligotrophic lakes also support a range of BAP priority species and other species listed on Annexes of the Habitats and Birds Directives, e.g. slender naiad *Najas flexilis*, salmon *Salmo salar*, common scoter *Melanitta nigra*, black-throated diver *Gavia arctica*, and otter *Lutra lutra*.
- Oligotrophic lakes are at risk from a number of factors. Their ecological functioning is critically dependent upon low nutrient levels, making them very vulnerable to eutrophication. Throughout the UK oligotrophic lakes have suffered deleterious changes due to nutrient enrichment and/or acidification. Hydro power, water abstraction, fish farming, afforestation and recreational development have all affected oligotrophic lakes in recent decades, and the habitat continue to be under significant threat from development pressure. Acidification continues to affect many sites.
- This habitat is extensive in the north and west of the UK, but sparse elsewhere. Only a rather small proportion of the UK resource is included in protected sites, although measures under the WFD should help protect the wider resource.
- Oligotrophic lakes are of key functional importance, complementing other priority habitats e.g. blanket bog and as habitat for wide-ranging species such as salmon *Salmo salar*, otter *Lutra lutra*, divers *Gavia stellata* & *G. arctica*.
- The habitat description provided for Oligotrophic lakes would benefit from some clarification e.g. linkage to existing classifications and/or alkalinity levels. A clear definition for Oligotrophic lakes will need to be drawn up to produce an inventory, based on and complementing the definition recently developed by the Lakes HAP group for Mesotrophic lakes.
- There is potential overlap with the proposed ponds priority habitat (see Section 4.4), but 2 ha has been agreed between the relevant specialists as the cut-off size, with the option to include smaller water bodies in the oligotrophic lakes inventory on a case-by-case basis.
- The form would benefit from a certain amount of updating and correction e.g. data and references.
Comments on this point are invited.

4.4 Ponds

Background

A proposal covering this type of habitat (as Ponds of high ecological quality) was agreed by the UK Targets Group in 2001 following wide consultation and discussion, but approval was deferred until the present review. The proposal has been reviewed and updated by the Freshwater LCN in consultation with the environment agencies, and with substantial input from Pond Conservation. The proposal form is included in Annex 2(d).

Comments on proposal for consultation exercise

- The justification provided for high quality ponds to be considered as a priority habitat is convincing. The submission has involved a thorough consultation process, and has attracted the support of a large number of individuals and associated groups from around the UK. It is based on a substantial knowledge of the biodiversity associated with ponds.
- The UK has clear international obligations to conserve the habitat and associated species, under both the EC Habitats and Water Framework Directives. The proposed habitat includes six Annex I habitats, either entirely or in part.
- The habitat supports many species of conservation importance, including a range of invertebrates, plants, amphibians and mammals. An exceptional number of BAP priority species (at least 65 species) are dependent on either temporary or permanent ponds, and six pond species are listed on Annex II of the Habitats Directive.
- The resource is at substantial risk, as it is poorly represented in the SSSI site series and subject to serious degradation through enrichment, diffuse pollution and other impacts. There has been a dramatic long-term loss of ponds and, despite some recent respite, turnover remains high and this is only partly compensated for habitat creation. There is also a substantial risk from the spread of alien invasive species.
- Ponds are generally recognised as being functionally important, complementing other semi-natural habitats (including watercourses, other water bodies and wetland habitats), and act as a resource for conserving wider-ranging species, including a range of amphibians.
- The criteria identified to define which ponds should be considered for inclusion are well considered and clearly linked to the nature conservation importance of individual sites. The definition provided is clear. Only a rather narrow sub-set of ponds is included in the proposed priority habitat, which is accepted on the basis that the remit of an associated 'Ponds HAP' might take a wider scope. *Comments on this point in particular are invited.*
- There is, inevitably, some potential overlap with other water/wetland habitats, but this is not thought to be a significant issue. The definition is intended to complement other standing water habitats; the 'cut-off' from lake priority types has been agreed with the Lakes HAP Group as 2 ha, subject to flexibility in the range 1-2 ha (see comment for Oligotrophic lakes above).
- Although the proposal is not at a consistent hierarchical level compared with lake priority habitats, it is not considered appropriate to sub-divide ponds using the same trophic basis. In addition, the proposal does fit within a single Broad Habitat type.
- Reasonable and clear information is provided about the distribution and extent of the habitat, and work has already begun on mapping and compiling an inventory of the resource through the National Pond Survey.
- Because the proposed type is a relatively small subset of all ponds, a qualifier to the name is proposed, i.e. 'Ponds of high ecological quality', although 'Ponds of high (nature) conservation value' may be considered more meaningful. *Comments on this particular point are invited.*

4.5 Other potential freshwater habitats

4.5.1 Other river types

The existing and proposed riverine habitats (Chalk rivers, Active shingle rivers and Headwaters) encompass only a relatively small proportion of running waters in the UK. This contrasts with the position for standing waters and other semi-natural terrestrial types. The freshwater specialists considered this carefully, but decided not to put forward proposals for other river types. They wanted to avoid a 'blanket' approach to priority habitats that would be: a) difficult to define; and b) lacking in focus in terms of aims, targets and delivery. Except for the two new categories put forward, they were doubtful whether priority habitat status would bring substantial benefits over and above what should be achieved by the Water Framework Directive.

Whilst this is understandable, the purpose of the current review is to establish a comprehensive listing of habitats which meet the criteria for priority status, **prior** to consideration of implementation issues. It seems unlikely that there are **not** other categories of running waters which would merit listing on the basis of risk and/or key species assemblages. However, it has proved difficult to define what these might be. *Comments on this particular point are invited.*

4.5.2 Canals

Canals form a linear network of wetland habitat in some parts of the UK. These can be important for nature conservation, especially in areas where more 'natural' wetland habitats are scarce and boat usage is limited. Some of the most important stretches in England and Wales are notified as SSSIs, principally for their aquatic flora and fauna. Some fen and swamp habitats associated with canals would be covered by the existing Fens priority habitat type, but generally the open water zone appears not to be included within the current BAP priority habitat series or the new proposals in this review. However the freshwater specialists did not consider that there was a sufficiently strong justification for proposing a BAP priority habitat for canals in this review. *Further comments on this issue are invited.*

5. Terrestrial habitats - new priority types

5.1 Mountain heaths

Background

This habitat proposal (as 'Montane heaths') was agreed by the UK Targets Group in 2001 following wide consultation and discussion, but approval was deferred until the present review. The proposal has been reviewed, revised and updated by the Upland LCN. The proposal form is included in Annex 2(e).

Comments on proposal for consultation exercise

- A detailed and convincing justification is provided for Mountain heaths to be considered as a priority habitat, based on the three main criteria for selection. It has been developed by, and has the support of, all the statutory conservation agencies through the JNCC Upland Lead Coordination Network. The Montane Scrub Action Group has also expressed its support (see Section 5.7).
- Mountain heaths are of international importance for nature conservation, encompassing three Habitats Directive Annex I types, including one which is especially rare in the UK (Sub-Arctic *Salix* scrub).
- This habitat supports over 20 BAP priority species including vascular plants, bryophytes, lichens and a moth. Many other rare and local arctic-alpine plants and invertebrates occur. Notable birds include ptarmigan, and dotterel (listed on Annex I of the Birds Directive).
- Mountain heaths are at considerable risk due to various factors. They include some of the most extensive areas of near-natural vegetation in the UK, and are highly susceptible to human influences. They are threatened by grazing and trampling, nitrogen deposition, recreation, use of all-terrain vehicles (ATVs), burning and climate change.
- There is widespread evidence of accelerating decline in extent and condition of mountain heath habitats over the last 50 years from several causes and there is concern that some changes may become irreversible. Habitats such as mountain willow scrub are especially vulnerable because of their extreme scarcity.
- Mountain heaths occur widely across the north and west of the UK, with the main concentration in Scotland, where much lies outwith the protected site network. Work currently in progress on upland heath for the Upland HAP Group needs to be extended for the production of an inventory and improved estimates of extent. Mapping the habitat can be particularly difficult in steep and complex terrain.
- The habitat is described in terms of vegetation communities and the tree line, to distinguish it from other habitats but complementing the definition for the Upland heath priority habitat. It is clearly related to the qualifying criteria, excluding degraded habitats which would be a target for restoration.
- The habitat has been renamed 'Mountain heaths' rather than 'Montane heaths' to use more familiar terminology, although it can occur at low altitudes in Northern Scotland. It has been suggested that the words 'and scrub' could be added to the name to emphasise the inclusion of this important component. *Comments on these particular points are invited.*

5.2 Upland flushes and fens

Background

This habitat proposal has been put forward by the Upland LCN. The proposal form is included in Annex 2(f). The proposal has come about as a consequence of the change in scope of the Fens priority habitat agreed in 2001 as part of the review of gaps in the BAP priority habitat series. Although the introductory description in the Fens Habitat Action Plan (1995) covered both lowland and upland fens (in a wide sense, including springs/flushes and swamps) the targets and actions in the plan only covered lowland fens. The UK Targets Group formally agreed to this in May 2001, in recognition of the fact that the conservation issues and pressures on fens in the lowlands and uplands are substantially different.

Comments on proposal for consultation exercise

- A sound justification for this proposal is presented, based on international responsibility, risk and dependent species. It has the support of the Upland habitat specialists in all of the nature conservation agencies.
- Upland flushes and fens in the UK are clearly of international importance for nature conservation. They include all or most of our representation of five habitats listed on Annex I of the Habitats Directive. Two of these (Alpine pioneer formations and Petrifying springs) are priority types i.e. especially threatened in Europe.
- This habitat type also supports many nationally and internationally rare and scarce species, notably of vascular plants, bryophytes and invertebrates, including a range of BAP priority and Red Data list species and species on Annex II of the Habitats Directive.
- Upland flushes and fens are at risk because of various human activities and related impacts. Although evidence of historical losses are not quantified, there is clear evidence of widespread and continuing adverse impacts from grazing animals (stock and deer) and damaging activities such as vehicle use, drainage and afforestation.
- Upland flushes and fens occur throughout the uplands of the UK though extent data are not readily available. Individual stands tend to be small, and some specific types such as *Cratoneurion* springs are rare, both factors making them more vulnerable to adverse impacts. Although well represented within the SAC and SSSI/ASSI series, much of the resource occurs outside protected sites and so is at greater risk.
- Upland fens and flushes are usually closely associated with other existing or proposed priority habitats (blanket bog, upland calcareous grasslands, upland heaths, montane heaths, limestone pavements, upland rock and scree) and can be of functional importance for species associated with these wider habitats e.g. as feeding habitat for breeding birds.
- This habitat is clearly defined to meet the qualifying criteria and to complement, but not overlap, other priority habitats such as Blanket bog and Upland heath. Although defined well enough in terms of vegetation type to be mappable, a comprehensive inventory would be difficult to compile because of the habitat's extensive distribution combined with the small size of many stands.
- Although the term 'fens' as used by the conservation agencies usually includes flushes (and springs), the suggested title 'Upland flushes and fens' is intended to highlight the particular importance of flushes/springs in the uplands. *Comments on this particular point are invited.*
- Although implementation issues are to be addressed at a later stage in this review, much of the necessary conservation action for Upland flushes and fens (e.g. controlling grazing impacts) could be taken as part of other habitat plans since upland flushes and fens are generally a minor component associated with these more extensive habitats. This does not though reduce the justification for priority habitat listing.

5.3 Upland natural rock and scree habitats

Background

This habitat proposal was considered in the previous gaps review but a decision was deferred until the current review. It has been considered by the Upland Lead Co-ordination Network, within which there were some reservations about putting this habitat forward (indicated below). A draft proposal form is included in Annex 2(g) but this has not been finalised by the LCN.

Comments on proposal for consultation exercise

- A generally convincing case for priority status for upland rock and scree habitats is presented, although there are issues about the scope of the habitat as indicated below. Whilst the level of risk is not generally high, the nature conservation value is substantial and should justify priority status. *Comments on this are invited.*
- The habitat is clearly of international importance as it encompasses five quite widespread habitat types listed on Annex I of the Habitats Directive.
- This is one of the most valuable habitat complexes in the uplands for vascular and non-vascular plants, and lichens. Many nationally rare, nationally scarce and uncommon plants are associated with it, including five BAP priority vascular plant species and several priority bryophytes and lichens. It also supports various notable breeding birds and invertebrates.
- Much of the habitat is not considered to be under significant risk, although some features such as tall-herb ledges are very rare types and so more vulnerable. Grazing impacts and trampling are locally significant on accessible areas of rock ledges and scree, particularly where adjacent pressures are high. The impacts of climate change and air pollution may be deleterious.
- Certain species or assemblages are at risk, especially the grazing-sensitive species. These small relict populations clinging to rock ledges are at risk of extinction. Some of these species have the potential to become more widely distributed. Restoration of many of the species at risk means allowing them to colonise open slopes below the rock habitats rather than restoring the rock habitats themselves. The extension of plant populations on to more accessible rock habitats may make populations more secure and benefit invertebrate populations dependant on the plant species.
- The description of the habitat is very broad, and would benefit from refinement to focus on features of high conservation interest. This is not easy, but a current project to describe chasmophytic vegetation will help. Rock and scree habitats are difficult to survey and map due to topographic complexity, inaccessibility and classification difficulties, and a comprehensive inventory is unlikely to be feasible. *Comments on these points are invited.*

5.4 Rock outcrops, mine spoil and river shingle rich in heavy metals

Background

This habitat proposal was agreed by the UK Targets Group in 2001 but approval was deferred until the present review. The proposal has been reviewed and updated by the Lowland grassland LCN with input from others. The proposal form is included in Annex 2(h).

Comments on proposal for consultation exercise

- This proposal meets the main criteria for priority habitat status, and has the support of the Lowland grassland HAP steering group including the statutory conservation agencies, as well as Plantlife. There are, nevertheless, issues about the scope of the habitat as indicated below.
- Rock outcrops, mine spoil and river shingle deposits rich in heavy metals (and other unusual minerals) provide an important habitat for Calaminarian grasslands and related vegetation types. The vegetation is typically sparse and open due to the toxicity and low nutrient status of the substrate. This enables certain species or races of vascular plants, lichens and bryophytes to occur, which are specifically adapted to the conditions.
- The habitat is of international importance as it encompasses a declining habitat (Calaminarian grasslands of the *Violetalia calaminariae*) listed on Annex I of the Habitats Directive.
- The habitat supports a specialised flora which includes five BAP priority plant species, mainly bryophytes, and a range of other rare species restricted to this habitat type.
- Anthropogenic stands, in particular, are under considerable threat from programmes for the rehabilitation of derelict land, as well as from landfill schemes and mineral re-working. For example, in the Peak District 50 % of lead rakes have been lost this century, and losses are continuing
- Vegetation development is generally curtailed by the toxicity of the substrate, but on some sites a lack of active disturbance has led to significant losses due to the natural development of coarse grassland and scrub.
- Near-natural examples are highly localised on outcrops and scree of serpentine and related rock types, mostly in the Scottish Highlands and Islands. Metalliferous mine spoil and river gravels are more widespread, particularly in parts of England and Wales. Though the habitat is sufficiently well defined, it is rather a neglected type and a comprehensive inventory is not available. Guidance on condition assessment has been developed by JNCC which could be used for setting targets.
- The habitat has a relatively narrow focus, relating to its nature conservation value, and is defined on ecological criteria. As described it does overlap with two other newly proposed priority habitats: Upland natural rock and scree habitats (see Section 5.3) and Active shingle rivers (see Section 4.1). The definitions of these types could be revised to avoid overlap.
- The Lowland grassland LCN considers that it makes practical sense to have this type as a separate priority habitat, particularly as it relates well to the Habitats Directive type. However, it would be feasible to cover the various component types with other proposed habitats. Types on mine spoil have been specifically excluded from the proposal for Post-industrial habitats (see Section 5.5), although they would otherwise sit quite well within that type; and the other occurrences could be covered jointly by Upland natural rock and scree (see Section 5.3) and Active shingle rivers (see Section 4.1) habitats. *Comments on the above two points are particularly invited.*

5.5 Post-industrial sites

Background

This habitat proposal was considered by the UK Targets Group in 2001 but was deferred for further consideration. The proposal has been reviewed and updated by the Urban Inter-agency Working Group. The proposal form is included in Annex 2(i) together with accompanying notes.

Comments on proposal for consultation exercise

- The proposal to consider post-industrial sites of high nature conservation value as a priority habitat is generally convincing, subject to the selection criteria presented in the submission and need to prioritise at the implementation stage. *Comments on this point are invited.*
- The proposal is well prepared and supported by a recent and comprehensive review of the biodiversity associated with post-industrial habitats. It also receives the support of the inter-agency habitat group and a number of other organisations dealing with the industrial-urban environment, including the Land Restoration Trust which has indicated an interest in ‘championing’ this habitat.
- This habitat is clearly at substantial risk and subject to destruction and serious degradation. Major factors threatening it include urban development, landfill, unsuitable reclamation, eutrophication, lack of appropriate management and natural succession. Few post-industrial sites have been afforded SSSI protection and creation of new sites is limited.
- The habitat clearly supports many species and some habitat types that are a priority for nature conservation. Sites can support exceptionally important invertebrate communities, including rare species of Hymenoptera and Coleoptera. They are of particular importance for species requiring bare substrate, sandy burrowing or nesting sites, and nectar sources. Certain UK BAP priority plant species are strongly associated with this habitat, including the endemic and endangered Young’s orchid *Epipactis youngiana*. The habitat includes several scarce and threatened open vegetation communities described in the NVC. Important areas of grassland, heathland and scrub occur on post-industrial sites. *Comments on this particular point are invited.*
- The submission also points to the functional importance of post-industrial sites, as they often provide areas of early/pioneer habitat and general refugia within otherwise impoverished landscape areas.
- The definition provided is relatively clear, though the extent of the habitat is unclear. At the site scale, the proposed priority habitat is best defined as a mosaic of semi-natural vegetation types and development stages. Typically there is an inclusion of bare ground and early pioneer communities on skeletal substrates. Features, such as spoil mounds, provide topographical heterogeneity. The habitat can often persist for decades without active intervention because of the severity of the edaphic conditions.
- The criteria given to define which post-industrial sites ought to be considered for inclusion as a priority are well considered and appropriately linked to the nature conservation importance of individual sites. Only a limited part of the total resource will be included, though the remit of any associated action plan might take a wider scope.
- There is, given the range of vegetation types included in post-industrial sites, some inevitable overlap with other priority habitats. However, given that sites will be identified and separated from other habitats by their former industrial use, this is not thought to be a significant issue. The definition excludes mine spoil habitats rich in heavy metals (see section 5.4) although these could also sit quite comfortably here. *Comments on these issues are invited.*
- There is not an inventory of post-industrial priority habitat sites at present, but there are means by which a definition, inventory and map of sites could be devised given resources (for example using the contaminated and brownfield land registry and knowledge of local wildlife sites).
- Although posing challenges of definition, the proposal for a post-industrial priority habitat seems to make good sense in ecological and conservation terms. It essentially fits within a single Broad Habitat type and is at a similar hierarchical level to other types. *Comments on this issue are invited.*

5.6 Traditional orchards

Background

This habitat was proposed at a late stage in the previous ‘gaps’ review and so was not adequately considered at that time. The proposal has been reviewed and revised by English Nature in consultation with a range of other bodies. The proposal form is included in Annex 2(j).

Comments on proposal for consultation exercise

- The justification provided for ‘traditional’ orchards as a priority habitat is generally convincing. The submission has involved a thorough consultation process, attracted the support of a large number of individuals and associated groups from around the UK, and is based on a substantially improved knowledge of the biodiversity associated with orchards.
- The proposed habitat includes a range of fruit and nut orchards, with a low-density of open-grown trees set in semi-natural mainly herbaceous vegetation, managed in a low-intensity way.
- It has become clearer with recent survey work that ‘traditional’ orchards can support many species of conservation importance. These include important saproxylic invertebrate and epiphytic lichen assemblages, which is especially significant given the conservation concern afforded to these species and the scarcity of other habitats that support them. They can also support interesting fungi and bryophyte assemblages, have some invertebrate interest, and contain important areas of semi-natural grassland. *Comments on this particular point are invited.*
- The resource is clearly at substantial risk. It is poorly represented in the SSSI site series. Evidence is presented to demonstrate a dramatic, on-going loss of sites, only partly compensated for by improved management and restoration.
- Orchards also play an important complementary role, supporting other important semi-natural habitats (including wood-pasture/parkland, woodland, hedges, rough grassland, ponds and watercourses), and acting as a resource for wider-ranging species, including bird species and bats of conservation concern.
- The criteria identified to define which orchards should be considered for inclusion are well considered and linked to the nature conservation importance of individual sites.
- The habitat can be defined according to a range of simple visual criteria based on structural and management characteristics. These provide a reasonable basis to define and estimate the extent and distribution of the resource, and to also create a national mappable inventory of sites for monitoring purposes.
- There is some inevitable potential overlap with/inclusion of other priority habitats, including semi-natural grassland, wood-pasture, woodland, hedgerows and hedge trees. The scope and limits of the habitat need to be clearly defined, as does the separation from other ‘non-priority’ orchards. *Comments on this particular point are invited.*
- The separation of ‘traditional’ orchards as a BAP priority habitat, particularly from wood-pasture and parkland, has been the subject of discussion. The conclusion reached, to treat it separately, is considered on balance to be sensible.
- Orchards are generally viewed as being more artificial habitats than semi-natural types (for example compared to wood-pasture). This is, nevertheless, much more difficult to justify when considering ‘traditional’ orchards and when these are compared to hedgerows or cereal field margins, which are already recognised as priority habitats. In addition, the types of trees used are generally native or related species which is part of the reason for the associated faunal and floral interest.
- Because the proposed type is a subset of all orchards, a qualifier to the name is proposed, i.e. ‘Traditional orchards’, although ‘Orchards of high (nature) conservation value’ may be considered more meaningful. *Comments on this point are invited.*

5.7 Other potential terrestrial habitats

5.7.1 Field banks

Field banks are important features for nature conservation in some localities. They are traditional boundaries, formed from raised earth banks that are usually stone faced. In coastal fringe and upland parts of western Britain, where hedgerows struggle to develop due to severe exposure, they can be prevalent, for example, in Cornwall and western Wales where they are known as Cornish hedges and Cloddiau respectively. Field banks typically support a wide range of plants and semi-natural communities associated with grassland, heathland, coastal and open scrub vegetation. They provide habitat for a range of invertebrates, amphibians, reptiles and small mammals. Factors adversely affecting field banks include: (i) inappropriate or lack of appropriate maintenance/management; (ii) removal; (iii) damage by livestock; (iv) nutrient enrichment; and (v) invasion by bracken and non-native species.

The position of hedge/field banks was discussed during 2005 by the Ancient and/or Species-Rich Hedgerow HAP Steering Group. They decided that, although wooded hedge banks were within the scope of the HAP, unwooded field banks were beyond their remit. It was also concluded that the group did not have sufficient knowledge to propose field banks for consideration as a priority habitat, though they agreed that their conservation ought be encouraged by local and regional HAPs (see Annex 3a). As a contribution to this discussion, a note was prepared by the Welsh Assembly Government representative, outlining the position for field/hedge banks in Wales. They did not, however, receive any further encouragement and decided not to take forward this habitat for consideration by this review.

Comments on position of Field banks for consultation exercise

- Despite not receiving a formal submission for field banks, there is clear support for them as an important habitat in Wales and from Cornwall County Council. They certainly seem worthy of proper consideration, at least so that they are recognised as an important landscape feature capable of supporting significant areas of recognised priority habitat. Even if field banks do not merit treatment as a separate priority habitat, they could be recognised as part of any action plan directed at field boundaries (including hedgerows) or, at the very least, as an important feature in the definition of certain priority habitat types. *Comments on these points would be useful.*

5.7.2 Roadside verges

Road verges are similar to field banks as features of importance for nature conservation in many areas of the country. They have been estimated to cover an area over 200,00 ha across the UK. Vegetation in the majority of road verges corresponds to mesotrophic grassland MG1 *Arrhenatherum elatius* in the NVC, but occurrences of other grassland communities and habitats are widespread. In some regions, roadside verges form important reservoirs of grassland habitat, e.g. for neutral grassland in Cumbria and for calcareous grassland in Lincolnshire. They also harbour rare species, including BAP priority species such as *Arabis glabra* and *Dianthus armeria*. Twenty of the UK's 50 mammal species have been known to breed on roadside verges, as well as all six reptiles, a fifth of the 200 species of birds, 25 of the 60 species of butterfly, almost half of the 17 species of bumble bee, and five of the six amphibian species.

The decline in nature conservation value on many roadside verges has been linked with changes in management responsibility and approach, particularly the move from cutting by scythe to flail cutting, changes in cutting frequency, and the leaving of cuttings on the verges leading to an increase in nutrient status. There is evidence that the biodiversity value of road verges continues to decline: Countryside Survey 2000, for example, compared results from road verge plots samples in 1990 and 1998 and found a reduction in species-richness and increase in dominance of tall competitive plants, particularly in lowland farmed landscapes in England and Wales.

The case of road verges was considered by the Lowland Grassland HAP umbrella group during 2005. The group was supportive of the need for action, but not fully convinced that this should be

progressed through a specific new priority habitat. The identification of this habitat would be complicated as road verges are more specifically a land use rather than habitat type. It would not sit distinctly within any one broad habitat, particularly at a UK level.

Comments on position of Road verges proposal for consultation exercise

- Like field banks, road verges are clearly a landscape feature of some importance. They can certainly support extensive amounts of priority habitat types, particularly unimproved, infertile, species-rich grassland. Particularly in intensively farmed lowland areas, road verges can be the single most important location for these habitats and associated species, hence the development of specific action plans in many local BAPs. Roadside verges should, at least, be given recognition within the definition of relevant priority habitats. They should be identified as part of any action plan directed at field boundaries in general or any associated species or habitat. Such action could include: best practice guidance on roadside verge management for biodiversity; mechanisms for information exchange between roadside verge managers; and specific agri-environment guidance for roadside verge management and enhancement. *Comments on these points are invited.*

5.7.3 Arable land

Arable farmland includes a number of species, habitat types and features that have declined greatly and are considered to be importance for nature conservation. Amongst these are the threatened non-crop arable plant species and open vegetation communities (described in the NVC under types OV1-6, OV16-17). These are mainly associated with ground that undergoes periodic cultivation, receives only low inputs of fertiliser and broad-spectrum herbicide, and supports relatively open vegetation and/or relatively non-vigorous arable crops. Margins of arable crops tend to contain the highest density of 'weed' species, though these certainly occur and can potentially be restored across whole fields with appropriate treatment. A preliminary inventory of key sites and important areas for arable plant conservation shows that these are concentrated in the southern half of the UK.

Arable landscapes also support a number of bird species of conservation concern. These include birds that nest in arable fields (e.g. corn bunting, reed bunting, lapwing), particularly when these are sown with spring crops or are left fallow. They also include birds that feed within arable fields (e.g. grey partridge, tree sparrow, turtle dove), particularly if the crop contains a reasonable abundance of 'weed' species and insect life. Over-wintered stubbles that contain grain split during harvest also provide an important food source for arable farmland birds, as does ground that is inundated during the winter period. Winter stubbles also provide a critical habitat for certain bryophyte species, some of which are very rare and BAP listed priority species.

Cultivated areas important for arable weeds are a key element of the Machair priority habitat. Some of the species/habitats/features described above are also incorporated within the existing scope of the Cereal (arable) field margin priority habitat (see Section 6.3). Encouragingly, there are indications that the status of arable field margins has improved recently: Countryside Survey showed that the boundaries of arable fields increased significantly in species-richness and butterfly larval food sources between 1990 and 1998. The same results, however, also showed that certain plant types within arable fields declined, including some (e.g. *Polygonum aviculare*) that act as key food sources for seed eating birds.

Comments on position of Arable land for consultation exercise

- It is concerning that the current and proposed new definition explicitly for field margins excludes whole-field options from the priority habitat definition, albeit that their value for wildlife is acknowledged and the associated HAP Group intends to review their status in due course. This review is very much endorsed. BAP should certainly afford due consideration to all arable land that meets the criteria for priority status, even if delivery mechanisms continue to focus on the margins of fields. *Comments on these points are invited.*

5.7.4 Scrub & treeline vegetation

The status of scrub habitats within the BAP priority habitats series was addressed during the previous gaps review (see <http://www.ukbap.org.uk/GenPageText.aspx?id=103>, Habitat Gaps Review (1999-2001) document). Scrub, in its broadest sense, covers a very wide category of habitat based on low-growing (e.g. bramble *Rubus*) or taller woody species (e.g. willow *Salix*). It is associated with many different habitat types and explicitly mentioned in a number of existing priority habitat descriptions. Many forms of scrub are invasive and transitional, responding to, for example, declines in grazing pressure and opening of tree canopies. Scrub control is often a major management issue to retain other types of semi-natural habitat. Other forms of scrub are, nevertheless, more permanent. For example, on exposed ground at the upper altitudinal limit of tree growth and in coastal areas, forms of willow and hazel scrub are characteristic. Stable willow scrub is characteristic of certain wet sites, particularly those fringing water bodies. At lower altitudes, semi-permanent scrub occurs in the form of hedgerows.

The nature conservation value of scrub was the subject of an inter-agency review (JNCC Report 308, <http://www.jncc.gov.uk/page-2445>). Further to this, a comprehensive scrub management handbook, giving guidance on the management of scrub on nature conservation sites, has been produced by FACT in association with English Nature and RSPB. Various types of scrub provide essential or important habitat requirements for many species of higher plants, herbivorous insects and birds, including Red Data Book and BAP priority species. It is also likely to be equally important for lower plants, non-herbivorous invertebrates, reptiles and amphibians, and mammals. There are several Annex I types which are based on scrubby formations, including coastal and heath types, Montane willow scrub, juniper scrub, and scrubland facies on calcareous grasslands.

Comments on position of Scrub & treeline vegetation for consultation exercise

- As in the earlier gaps review, it is recommended that scrub habitats should be dealt with as an integral component of the various woodland, coastal, grassland, wetland, heath, rock and hedgerow priority habitats, rather than being considered separately. This should be addressed through the habitats manual being developed by JNCC. The conservation value of scrub as a structural component of these priority habitats also needs to be fully acknowledged in relevant Habitat Action Plans. It would be desirable to produce a guidance note regarding scrub conservation and management issues which could be circulated to all relevant HAP Steering Groups. *Comments on these points are invited*
- Specific concern was expressed by the Montane Scrub Action Group that upland scrub types are not covered sufficiently in existing upland/woodland priority habitats. Montane willow scrub is specifically included within the proposed Mountain heaths priority habitat (Section 5.1). Treeline scrub/Krumholtz vegetation is a high priority for restoration and it is recommended that it should be clearly encompassed within relevant priority habitats, such as Upland birchwoods and Native pinewoods. Concern has also been expressed about the status of juniper scrub if juniper is removed from the priority species list as a consequence of the current species review. *Comments on these points are also invited.*

6. Changes to existing priority habitats

6.1 General issues

It was not the primary purpose of this review to assess all existing priority habitats against the criteria and principles established for new proposals. It is, nevertheless, clear that a number would not meet with these especially well. Although it is important for the UK BAP to have a clear and consistent approach, it was recognised that stability of existing definitions is important and making drastic changes would not be particularly productive.

Comments on proposal for consultation exercise

- Several consultees took the opportunity to propose amendments that were considered to be beneficial using the forms provided. These included several significant changes, mostly arising as a consequence of the 2005 targets review, which are analysed below (Sections 6.2 to 6.6). Various smaller points of clarification or amendment also came to our attention, e.g. the need to stress the importance of disturbed ground in various habitats; and proposed minor modification of the Reedbed definition. It is also known that there are a range of other points which need to be resolved for individual priority habitats, such as where the published HAP description is insufficiently clear or ambiguous and is being interpreted in different ways. There are also minor changes which would be needed as a consequence of the new types proposed, e.g. to the lower size limit of lake types, see Section 4.4. Other changes are recommended in this review (see Sections 4.5. and 5.7). It is proposed that these points are all addressed through the BAP Habitats Manual which JNCC is currently developing, rather than resolving them through this review (see Section 3.2, final bullet point). *Comments on this proposed approach are invited.*

6.2 Ancient and/or species-rich hedgerows

Background

The Hedgerows HAP Group has reviewed the definition for this habitat and submitted the proposal form included in Annex 3(a). This issue first arose through the 2005 UK Targets Review and revised targets were submitted by the group on the basis of the proposed change in definition.

Comments on proposal for consultation exercise

- The submission proposes an extension to the priority habitat definition to include all hedgerows consisting predominantly of at least one woody native species. A detailed rationale for the change is given.
- The proposed extension would include all semi-natural hedgerows. It would accommodate a greater number of hedgerow trees and more wildlife associated with hedges, including species which are not limited by features associated with ancient and/or species-rich hedges. It would also include more hedges in Scotland and Northern Ireland, where the existing definition encapsulates only a limited number of hedgerows.
- The proposed change would also recognise that the hedgerow network as a whole plays an important functional role, particularly in lowland areas, connecting other priority habitats (notably native woodland, wood-pasture and parkland, traditional orchards and ponds) and redressing the effects of habitat isolation and fragmentation. This issue looks set to become even more important in the face of climate change and other continued environmental pressures.
- The proposed name change for the priority habitat, from ‘ancient and/or species-rich hedgerows’ to simply ‘hedgerows’, seems sensible given the proposed change in definition, i.e. that the priority habitat should be extended to include all hedgerows consisting predominantly of at least one woody native species. Even so, the habitat definition provided might benefit from some slight clarification.
- More importantly, there are several points of concern about the proposed extension of the priority habitat. The new definition encapsulates virtually all hedgerows in the countryside, not a prioritised sub-set within this major habitat type, and thus could be seen as inconsistent with other habitats.
- Although the proposal highlights several improvements that would result for nature conservation, we still consider that the existing sub-set tends to support the majority of the relic (woodland/grassland) species associated with hedgerows. It is arguable how well the additional hedgerow resource which it is proposed to include would meet the criteria for new types; the main criterion which would be relevant is that relating to key species assemblages, and some evidence is presented for various BAP priority faunal species which indicates that hedge structure or the presence of particular woody species is the critical issue, rather than antiquity or species-richness.
- Although several policy instruments do not isolate ancient/species-rich hedgerows from other hedgerows, and monitoring of ancient/species-rich hedgerows in isolation is problematic, it would be inconsistent to base the priority habitat definition on such considerations of convenience rather than importance for nature conservation.
- There are specific concerns about including hedgerows in certain areas on the basis of species consider to be native or long-established elsewhere in Britain, e.g. beech hedges in Scotland.
- If it is accepted that the future action plan could be wider in scope than the priority habitat, does the proposed change go beyond what could be considered to be a priority? *Comments on these particular points are invited.*

6.3 Cereal field margins

Background

The Cereal Field Margins HAP Group has reviewed the definition for this habitat and submitted the proposal form included in Annex 3(b). This issue was raised (but not satisfactorily resolved) at the time of the previous ‘gaps’ review in 1999. It arose again through the 2005 UK Targets Review and revised targets were submitted by the group on the basis of the proposed change in definition.

Comments on proposal for consultation exercise

- The submission proposes a change in the name of the priority habitat to Arable Field Margins, and some refinements to the definition.
- The proposed name change for the priority habitat is sensible given the proposed change to the definition, i.e. that the priority habitat should be extended to include field margins set against all (short-term) arable crops. Even so, the habitat definition would benefit from some clarification.
- More pertinent, however, is that the refined definition is a general description of arable field margins linked to the scope of the current HAP. It does not seem to explicitly consider or define nature conservation priorities or priority habitat areas in arable landscapes, which is also apparent in the existing habitat definition. It would probably not meet the criteria for new types.
- Text is, encouragingly, provided at the end that outlines the actual priorities, but only as a longer-term aspiration for the group to consider at a future review. Our recommendation is that this should be done now rather than deferring it for an indefinite period.
- With regard to this later definition, greater consideration ought to be given to a wider range of declining, threatened and/or vulnerable species and habitats associated with arable areas, including certain rare and threatened open vegetation communities described in the NVC as types OV1-6 and OV16-17 (see Section 5.7.3). *Comments particularly on these last two points are invited.*

6.4 Lowland wood pasture and parkland

Background

The Lowland Wood Pasture and Parkland HAP Group have reviewed the definition for this habitat and submitted the proposal form included in Annex 3(c). This issue first arose through the 2005 UK Targets Review and revised targets were submitted by the group on the basis of the proposed change in definition.

Comments on proposal for consultation exercise

- The submission proposes the removal of the ‘lowland’ element from the existing name of the priority habitat, concomitant with an extension of the definition to include suitable wood-pastures and parkland in upland as well as lowland situations.
- The proposal to revise the existing name is sensible, given the proposed change to extend the habitat definition.
- There are also clear and convincing benefits to the proposed expansion of the definition, given that it is now recognised that wood-pastures of comparable importance to those in lowland situations exist in the uplands (though details to this effect are not provided).
- The three GB statutory conservation agencies have been involved in the proposal, together with the Forestry Commission and the Woodland Trust.
- Even so, the existing habitat definition would benefit from some clarification. Certainly, the existing definition for the habitat will need to be revised, so that recognition is given to upland occurrences and associated species.
- It is recognised that the Lowland wood pasture and parkland habitat type is defined in structural/management terms in contrast to the other woodland priority habitats, and that as a consequence there is a certain amount of overlap with some of these. Some new issues arise or at least increase in significance as a consequence of the proposed extension into upland areas, where the ecological and physical separation between wood-pastures and ‘woodland’ are less distinct and relevant than in lowland settings.

6.5 Lowland calcareous grassland

Background

The Lowland Calcareous Grassland HAP Group have reviewed the definition for this habitat and submitted the proposal form included in Annex 3(d). This issue first arose through the 2005 UK Targets Review and revised targets were submitted by the group on the basis of the proposed change in definition.

Comments on proposal for consultation exercise

- The proposed refinement to the definition of the priority habitat is clear. It is based on new knowledge of the distribution of particular NVC calcareous grassland types above/below the limit of agricultural enclosure. The amendment has the support of all the main inter-agency grassland expert groups.
- This is a relatively minor, technical change, which helps to clarify/improve the existing definition. It will not result in any change to the overall scope of existing priority habitats. It does, however, require that the Upland calcareous grassland priority habitat is accordingly redefined. *Comments on this point are invited.*

6.6 Lowland heath

Background

The Lowland Heathland HAP Group have reviewed the definition for this habitat and submitted the proposal form included in Annex 3(e).

Comments on proposal for consultation exercise

- The proposed refinement to the definition of the priority habitat is generally clear. It represents only a minor change, which helps to clarify/improve the existing definition, and will not result in a significant change to the scope of the existing priority habitat. The proposed amendment appears to attract support from the Lowland Heathland HAP group, albeit implicitly. It is not clear what view other groups take, in particular the Lowland Grassland HAP group.
- Although the proposed definition would benefit from further precision, particularly with regard to the spatial and temporal occurrence of non-Ericaceous vegetation with lowland heathland sites, there is no suggestion that the proposal goes beyond what ought to be included in the priority habitat. *Comments on this point are invited.*

6.7 Native woodland

Background

The UK Native Woodland HAP Group has proposed via the 2005 UK Targets Review to combine the existing native woodland plans within a single framework. This would provide greater simplicity, especially for target setting and reporting, but retain the ability to monitor and set targets for individual priority woodland types.

Comments on proposal for consultation exercise

- There has been some debate about combining the existing native woodland types into a single 'native woodland' type, but it is clear that the consensus view as reflected by the proposal is to retain the existing priority woodland type subdivisions. This is supported as they are sufficiently extensive, distinctive and individualistic in terms of their treatment and conservation, to merit recognition as individual priority habitat types. *Comments on this point of view are invited.*