Data Description

<table>
<thead>
<tr>
<th>Title</th>
<th>Lowland Calcareous Grassland Priority Habitat Inventory for England (Extract from Priority Habitats Inventory)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative Title</td>
<td>Version 2.1</td>
</tr>
<tr>
<td>Data Originator(s)</td>
<td>Natural England</td>
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Abstract

This is a spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

The standalone Lowland Calcareous Grassland Inventory has been extracted from Natural England’s Priority Habitats Inventory v2.1 -

This inventory replaces Natural England's previous separate BAP habitat inventories: blanket bog, coastal & floodplain grazing marsh, coastal sand dunes, coastal vegetated shingle, deciduous woodland, fens, lowland calcareous grassland, lowland dry acid grassland, lowland heathland, lowland meadows, lowland raised bog, limestone pavements, maritime cliff and slope, mudflats, purple moor grass & rush pastures, reedbeds, saline lagoons, traditional orchards, undetermined grassland, upland calcareous grassland, upland hay meadows and upland heathland.

These earlier inventories were produced from 1999 onwards and derived from habitat datasets collated from across the country, prioritising areas outside of designated sites. Inconsistencies in the quality of the underpinning data meant that the inventories were of variable quality with significant overlaps between habitats and gaps in coverage.

The Priority Habitats’ Inventory (PHI) project began in April 2012 and combines the existing individual BAP habitat inventories into one national polygon layer. The objectives of the project were to:

- Address overlaps between the existing inventories, by identifying one main habitat per polygon.
- Improve the consistency with other data sources.
- Produce a layer that could more easily be updated.

The Priority Habitats’ inventory was interpreted based on:

- Ordnance Survey MasterMap® (OSMM), polygons used to capture the habitat boundaries.
- 25 individual priority habitat inventories.
- ENSIS (Natural England’s SSSI database) & Sites of Special Scientific Interest (SSSI) management units. Data was extracted from ENSIS and attributed against the SSSI units. Information for each unit included main habitat, description, features and NVC codes.
- Farm Environment Plan (FEP), Rural Land Registry (RLR), & Higher Level Stewardship (HLS). FEP features &
corresponding HLS management options were attributed against individual RLR parcels. FEP paper maps were not used.

- Contextual data included Coniferous Woodland, Moorland Line, OSMM descriptions.
- Aerial Photography

OS MasterMap polygons have been used as the primary framework for mapping. However, because OSMM polygons in unenclosed areas provide a framework that is significantly coarser than the existing inventories, a process has been developed to enable OSMM polygons to be split against the existing habitat inventories when this added significantly to the resolution of mapping.

Using all data inputs, a set of criteria were implemented to identify candidate main and additional habitats for each OSMM [or split OSMM] polygon. A series of rules were then applied to determine the most likely candidate for main habitat. The rules are set out in full in the supporting user guide.

Criteria for a habitat to be mapped as main habitat (Main_habitat) were as follows:

- Habitat inventories with an extent ≥50% of OSMM [or split OSMM] polygon (PHI>50%)
- Higher Level Stewardship option/FEP feature combinations where the estimated feature extent ≥50% of OSMM [or split OSMM] polygon (FEP + HLS)
- SSSI Unit extent ≥50% of OSMM [or split OSMM] polygon with corresponding Level 1 and Level 2 features (ENSIS L1)

The rules for eliminating or separating candidates for main habitats were as follows:

1/1b. MasterMap description
1c. ENSIS description
1d. NVC/HLS options
2. Coniferous woodland
3. Moorland boundary
4. Max number of sources
5. ‘Definitely is’
6. NVC type
7. Inventory confidence
8. MasterMap description
9. Inventory fit
10. Source confidence

(Candidates incompatible with the MasterMap description completely excluded)
For each inventory polygon, candidates for additional habitats were identified using the following tests:

- Discarded main habitat candidates
- Existing coverage at <50% of polygon (PHI < 50%)
- FEP features not included as candidate for main habitat (FEP < 50%)
- ENSIS Level 2 feature with no corresponding LI feature (ENSIS L2)

Candidate additional habitats were then removed on the basis of:

A1. MasterMap Description
A2. Moorland Boundary

**Outcome habitats for the Single Habitat Layer were:**

- Blanket bog (BLBOG)
- Calaminarian grassland (CALAM)
- Coastal & floodplain grazing marsh (CFPGM)
- Coastal sand dunes (CSDUN)
- Coastal vegetated shingle (CVSHI)
- Deciduous woodland (DWOOD)
- Fragmented heath² (FHEAT)
- Grass Moorland² (GMOOR)
- Good quality semi-improved grassland² (GQSIG)
- Limestone pavements (LPAVE)
- Lowland calcareous grassland (LCGRA)
- Lowland dry acid grassland (LDAGR)
- Lowland fens (LFENS)
- Lowland heathland (LHEAT)
- Lowland meadows (LMEAD)
- Lowland raised bog (LRBOG)
- Maritime cliff & slope (MCSLP)
- Mountain heath & willow scrub (MHWSC)
- Mudflats (MUDFL)
- Purple moor grass & rush pastures (PMGRP)
- Reedbeds (RBEDS)
- Saline lagoons (SLAGO)
- Coastal saltmarsh (SALTM)
- Traditional orchards (TORCH)
- Upland calcareous grassland (UCGRA)
- Upland hay meadows (UHMEA)
- Upland heathland (UHEAT)
- Upland flushes, fens & swamps (UFFSW)

(²Not a priority habitat)

Where candidate habitats remain but no main habitat can be identified the whole polygon is mapped as 'No main habitat but additional habitats' and the priority habitats thought to be present are shown within the attribution as additional habitats. This may occur when:
There are main habitat candidates but they are rejected based on the MasterMap description, e.g. lowland heathland under coniferous woodland.

- Inventory polygons intersecting the OSMM polygon fall below the minimum mapping unit (0.25ha)
- FEP features without corresponding HLS options or with the feature covering less than half the OSMM [or split polygon OSMM] polygon
- Where no SSSI L2 feature corresponds with the L1 feature.

**Attribution:**

The attribution provides supporting evidence for the mapping within each polygon, and an audit trail explaining how the rules have driven the outcome.

**Main_habitat:** Main priority habitat identified for the polygon, e.g. Lowland meadows

**Confidence:**

- High = Inventory with NVC data less than 5 years old
- Medium = Inventory less than 10 years old, with NVC data or with corresponding HLS options
- Low = All other polygons

**Sources**

Each polygon may have up to three sources for the main habitat which are attributed in the following priority:

i) Inventory sources
ii) FEP + HLS sources
iii) Aerial photography
iv) ENSIS features
v) Base mapping

Each source has the following fields:

**Source[n]:** Title of source, e.g. North Pennines Digital NVC Survey.

**S[n]Date:** Reference date of source, e.g. 01/01/2001

**S[n]HabClass:** Habitat classification of the source, e.g. National Vegetation Classification

**S[n]HabType:** Habitat type of the source, e.g. M19 H9

**BaseMapping:** The base map scale, e.g. 1:10000 or OS MasterMap

**Annex_1:** EU Habitats Directive (1992) Annex 1 habitats
attributed based on correspondence with NVC data or where attributed in the inventories, e.g. Active blanket bogs (H7130)

**Add_habits**: Additional habitats that may be present, but that were not identified as the main habitat for the polygon. e.g. BGS DiGMapGB-50 Superficial deposits = peat (Blanket bog) (2008); SSSI features: M4-6; U2-U6; Blanket bog and valley bog (upland); FEP features: M06: Blanket bog

**Candidates**: Habitats identified as candidates for main or additional habitats. e.g. Main habitat: CFPGM (PHI > 50%), LMEAD (PHI > 50%, ENSIS L1), Additional: PMGRP (ENSIS L2 only)

**Rule_Decis**: Outcome of rules used to separate candidates for main or additional habitats, e.g. Tests failed: 6. NVC type (CFPGM)

**GenComment**: Determination comment for main habitat from the original habitat inventory.

**LastModDat**: Parcel last modified date (including for manual updates)

**ModReason**: Reason for last modification for manual corrections.

**Changes from previous version**

Changes from version 2.0 of the Priority Habitats’ Inventory (released Oct 2014) involve updates to rulesets and other automated processes and addition of new data.

These are detailed in full in the User Guide for Natural England’s Priority Habitats’ Inventory version 2.1, but include changes to:

- The boundary framework
- The process by which candidate habitats are identified
- The process by which main habitats are selected
- The interpretation of source datasets and their attribution
- The rules for selecting between candidates for main habitat
- The attribution of certain upland habitats
- The interpretation of OSMM polygon data
- The way the process treats upland and lowland habitat equivalents
- Deal with selected minor bugs identified through the testing of v2.0

Data from the following additional datasets have been incorporated in this version:

- Lancashire & Cumbria Grassland Inventory Validation
Survey
- Updated data on Calaminarian Grasslands, Coastal Saltmarsh and Traditional Orchards
- Solent Coastal Vegetated Shingle Survey
- North Pennines AONB (upland hay meadows)
- Updates to ENSIS data
- Updates to FEP and HLS data
- Updates submitted by NE advisers

Manual changes have been made to 9697 polygons comprising 12,089 ha. These are primarily:

- Separation of upland and lowland heathland, based on the Severely Disadvantaged Area boundary and 300m contour.
- Checking of maritime cliffs and slope areas against aerial photography and contour data.
- Incorporating new data from Natural England advisers’ field visits.

Total number of polygons: 30,224
Overall area: 61,857 ha

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**Dataset Geographical Extent**

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**Data Access**

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**Miscellaneous**

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**Distributor Details**

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<tr>
<td>Contact Title</td>
<td>Habitat Inventory Team</td>
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<tr>
<td>Name of Distributor</td>
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<tr>
<td>Postal Address</td>
<td>Natural England, Parkside Court, Hall Park Way, Telford, TF3 4LR</td>
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**Date of update of metadata:** 11/12/2015