

UKHab Version 2.0 – Advance Publication of Selected Definitions

Hedgerows, Lines of Trees and Green Roofs

Following extensive consultation in 2022, UKHab Ltd intends to publish Version 2.0 of the UK Habitat Classification in spring 2023.

One of the five objectives of Version 2.0 is to achieve closer alignment with habitats used in the Biodiversity Metric. While Version 3.1 of the Biodiversity Metric used UKHab V1.1 as its base classification, feedback indicated that closer alignment between UKHab and habitats used in the metric would be helpful. Consequently Natural England has been working closely with UKHab to achieve alignment wherever possible.

Biodiversity Metric Version 4.0 was published on 24 March 2023 (Natural England et al 2023). UKHab Ltd publishes in this document some extracts from its forthcoming UKHab Version 2.0 Habitat Definitions document. These provide the Habitat Names and Definitions of habitat categories relating to Hedgerows, Lines of Trees and Green Roofs, as they will appear in the full Version 2.0 publication. The purpose of publishing these extracts in advance of the full publication of Version 2.0 is to provide a reference source for these definitions for users of Biodiversity Metric 4.0.

This document is available for download from <http://ukhab.org>

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The Habitat Definitions should be read alongside other UKHab resources available for free download from the website quoted above,

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UKHab Ltd is a not-for-profit company registered in the UK to maintain UKHab as a comprehensive and up to date classification of UK habitats
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h2 Hedgerows

Definition

Lines of shrubs that have the base of their leafy canopies ≤ 2 m in height from the ground, so that the woody linear feature as a whole appears as a 'shrubby' hedgerow, even though some of the woody species in it are capable of growing into trees. Hedges in good condition have the base of their leafy canopies ≤ 0.5 m from the ground.

Landscape and Ecological Context

In rural areas hedgerows were primarily used as stock-proof boundaries around fields, although many now also have wire fencing. In urban areas hedgerows mainly perform a landscaping or garden boundary function.

Inclusions

Includes tall lines of connected shrubs that remain in a management cycle and allowed to grow tall before being laid.

Exclusions

Shrubby components > 5 m wide at the base - (see h3 Dense scrub).

Woody linear features comprising trees without a shrub layer, even where showing signs of historic management.
(see 1174 or 1175).

Habitat features of trees collectively > 5 m wide at the base (see w).

Species

Hedgerows range from those dominated by two or three woody species through to rich mixtures of shrubs, trees and ground flora of ancient hedgerows.

Position in the Classification

Primary

Feature Type

Linear

h2a Native hedgerow

Definition

A hedgerow with >80% canopy cover of UK native or archaeophyte woody species.

Inclusions

Archaeophytes are species that have been recorded as naturalised in the wild before 1500 CE. The status of Sycamore *Acer pseudoplatanus* is unclear, but should be treated as an archaeophyte.

Roses (*Rosa* spp.) are included as woody species.

Exclusions

Climbers such as honeysuckle *Lonicera periclymenum* and bramble *Rubus fruticosus* agg. are recognised as integral to many hedgerows; however they require other woody plants to be present to form a distinct woody boundary feature; as such they are not included in the definition of woody species.

Species

Often a mix of shrub and tree species such as Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa*, Hazel *Corylus avellana*, Field Maple *Acer campestre*, Elm *Ulmus* spp., Ash *Fraxinus monogyna* and Oak *Quercus* spp., interwoven with climbers like Traveller's-joy *Clematis vitalba* and Honeysuckle *Lonicera periclymenum*. Ground flora often very similar to local woodlands.

Position in the Classification

Primary

Feature Type

Linear

h2a5 Species-rich native hedgerow

Definition

Native hedgerows with at least 5 (or at least 4 in northern and eastern England, upland Wales and Scotland) UK native or archaeophyte woody species in a 30m section.

Inclusions

Archaeophytes are species that have been recorded as naturalised in the wild before 1500 CE. The status of Sycamore *Acer pseudoplatanus* is unclear, but should be treated as an archaeophyte. Northern and eastern England is defined as in Schedule 1 of the Hedgerow Regulations 1997 i.e. in the county (as constituted on 1st April 1997) of the City of Kingston upon Hull, Cumbria, Darlington, Durham, East Riding of Yorkshire, Hartlepool, Lancashire, Middlesbrough, North East Lincolnshire, North Lincolnshire, Northumberland, North Yorkshire, Redcar and Cleveland, Stockton-on-Tees, Tyne and Wear, West Yorkshire or York. Upland Wales is defined as above 300m. Scotland is the country of Scotland.

Position in the Classification

Primary

Feature Type

Linear

h2a6 Other native hedgerows

Definition

Native hedgerows with 4 or fewer (or 3 or fewer in northern and eastern England, upland Wales and Scotland) UK native or archaeophyte woody species in a 30m section.

Inclusions

Archaeophytes are species that have been recorded as naturalised in the wild before 1500 AD. The status of Sycamore *Acer pseudoplatanus* is unclear, but should be treated as an archaeophyte. Northern and eastern England is defined as in Schedule 1 of the Hedgerow Regulations 1997 i.e. in the county (as constituted on 1st April 1997) of the City of Kingston upon Hull, Cumbria, Darlington, Durham, East Riding of Yorkshire, Hartlepool, Lancashire, Middlesbrough, North East Lincolnshire, North Lincolnshire, Northumberland, North Yorkshire, Redcar and Cleveland, Stockton-on-Tees, Tyne and Wear, West Yorkshire or York. Upland Wales is defined as above 300m. Scotland is the country of Scotland.

Position in the Classification

Primary

Feature Type

Linear

h2b Non-native and ornamental hedgerow

Definition

A hedgerow with >20% canopy cover of UK non-native woody species.

Inclusions

Recently introduced species or 'neophytes' are species that have been introduced to the UK after 1500 CE.

Garden varieties of ornamental native species, such as yew *Taxus baccata*, box *Buxus sempervirens* and privet *Ligustrum spp.* are treated as non-native.

Position in the Classification

Primary

Feature Type

Linear

70 Hedgebank

Definition

Earthbank with height $\geq 0.5\text{m}$ from its base with a more or less continuous hedgerow or line of trees along its top.

Landscape and Ecological Context

Banks associated with hedgerows are common landscape features of Devon and Cornwall but may be found elsewhere.

Exclusions

Earthbank with a gappy hedgerow or only herbaceous species, bracken or bramble along its top (see 71).

Position in the Classification

Secondary

Allowed Primary Habitats

h2~ w1~ w2~

Feature Type

Linear

190 Hedgerow with trees

Definition

A linear feature at least 20m long with a woody component less than 5m wide at its base, a shrub layer present and with at least two prominent trees taking their natural shape that are less than 20m apart over most of its length.

Exclusions

Hedgerow lengths with only one prominent tree taking its natural shape (omit this code).

Linear features with trees but with shrub layer absent (see 1174 or 1175).

Position in the Classification

Secondary

Allowed Primary Habitats

h2~

Feature Type

Linear

191 Ditch

Definition

An artificial standing-water or dry ditch linear feature less than 5m wide that is at least 20 times longer than its width.

Inclusions

Drainage ditches likely to retain water for more than 4 months a year in fenland or on levels (use primary code r1).

Ditches that are part of the structure of a hedgerow and within 2m of it should be recorded as part of the hedgerow linear feature (use primary code h2~). These may or may not hold water for part of the year.

Ditches that are part of the structure of a line of trees and within 2m of it should be recorded as part of the line of trees linear feature (use primary code w~ and secondary code 1174 or 1175.) These may or may not hold water for part of the year.

Dry ditches that are historical landscape features.

Position in the Classification

Secondary

Allowed Primary Habitats

r~ h~ w~ g~

Feature Type

Linear

1171 Mature tree

Definition

An individual mature tree.

Inclusions

A mature tree is one that is at least two-thirds of its expected fully mature height for the species.

Includes native and non-native trees.

Position in the Classification

Secondary

Allowed Primary Habitats

g~ w~ h~ f~ c~ u~ s~

Note: use the code of the primary habitat immediately surrounding the tree.

Feature Type

Point

1174 Line of trees

Definition

A line of trees >20m long and <5m wide at the base and the canopy base >2m in height with open habitat on each side.

Inclusions

Linear tree features with a shrub layer <20m long present.

Exclusions

Linear tree features with a shrub layer >20m long present (see 190 Hedgerow with trees).

Position in the Classification

Secondary

Allowed Primary Habitats

w1~ w2~

Feature Type

Linear

1175 Ecologically valuable line of trees

Definition

A line of trees (see 1174 for definition) that has at least one mature (see 1171), veteran (see 1177) or ancient tree (see 1176) per 30m length.

Position in the Classification

Secondary

Allowed Primary Habitats

w1~ w2~

Feature Type

Linear

1176 Ancient tree

Definition

Ancient tree attributes can include great age in comparison with other trees of the same species and great size in terms of trunk girth.

Inclusions

A more precise definition is likely to be published in the course of 2023. For more information see the Keepers of Time publication (DEFRA, 2022).

All ancient trees should also be recorded as veteran (see 1177).

Position in the Classification

Secondary

Allowed Primary Habitats

g~ w~ h~ f~ c~ u~ s~

Note: use the code of the primary habitat immediately surrounding the tree.

Feature Type

Point

1177 Veteran tree

Definition

A tree, usually in the second or mature stage of its life, with important wildlife and habitat features including; hollowing or associated decay fungi, holes, wounds and large dead branches. It will generally include old trees but also younger, middle aged trees where premature aging characteristics are present.

Inclusions

A more precise definition is likely to be published in the course of 2023. For more information see the Keepers of Time publication (DEFRA, 2022).

Exclusions

Veteran trees may or may not be ancient trees (see 1176).

Position in the Classification

Secondary

Allowed Primary Habitats

g~ w~ h~ f~ c~ u~ s~

Note: use the code of the primary habitat immediately surrounding the tree.

Feature Type

Point

1110 Green roof

Definition

A roof or deck onto which vegetation is intentionally grown or habitats for wildlife are established.

Position in the Classification

Secondary

Allowed Primary Habitats

u1b5

Feature Type

Area

1111 Biodiverse green roof

Definition

Extensive green roof designed specifically for biodiversity that:

has a depth of substrate (not including a blanket or turf) that varies between 80 and 150mm, with at least 50% of the roof at 150mm deep and

is planted and seeded with a wide range of dry grassland wildflowers and *sedum* species

Position in the Classification

Secondary

Allowed Primary Habitats

u1b5

Feature Type

Area

Species

The species richness of dry grassland and *Sedum* species should exceed 40.

A biodiverse green roof should include other habitat features (for example, bricks for solitary nesting bees or logs.)

1112 Intensive green roof

Definition

A high maintenance green roof that is designed as a park or garden and includes shrubs, trees, perennials and grasses that has:

≥50% native and ≥30% non-native species of pollinator interest (≥80% overall) and

≥70% of the surface as soil and vegetation (including water features) and

≤30% hard standing (such as paving or firebreaks).

Inclusions

Intensive green roofs may include water features.

Position in the Classification

Secondary

Allowed Primary Habitats

u1b5

Feature Type

Area

1113 Other green roof

Definition

Green roofs, including Wildflower turfs and *Sedum* blankets, that are neither biodiverse or intensive.

Inclusions

Wildflower turfs support a range of wildflower species but lack the topography and diversity of biodiverse green roofs. They need significant irrigation.

Sedum blankets are 60mm deep (20mm *Sedum* and 40mm substrate) of limited ecological value.

Position in the Classification

Secondary

Allowed Primary Habitats

u1b5

Feature Type

Area

Figure 1 Recording Metric V4.0 Hedgerow Categories with UKHab V2.0 Combined Codes

| Metric V4.0 Hedgerow and Line of trees categories | UKHab V2.0 Combined Codes |
|---|--|
| Native hedgerow | h2a6 |
| Native hedgerow - associated with bank or ditch | h2a6 70 or h2a6 191 or h2a6 70 191 |
| Native hedgerow with trees | h2a6 190 |
| Native hedgerow with trees - associated with bank or ditch | h2a6 190 70 or h2a6 190 191 or h2a6 190 70 191 |
| Non-native and ornamental hedgerow | h2b |
| Species-rich native hedgerow | h2a5 |
| Species-rich native hedgerow - associated with bank or ditch | h2a5 70 or h2a5 191 or h2a5 70 191 |
| Species-rich native hedgerow with trees | h2a5 190 |
| Species-rich native hedgerow with trees - associated with bank or ditch | h2a5 190 70 or h2a5 190 191 or h2a5 190 70 191 |
| Line of trees | w~ 1174 |
| Line of trees - associated with bank or ditch | w~ 1174 70 or w~ 1174 191 or w~ 1174 70 191 |
| Ecologically valuable line of trees | w~ 1175 |
| Ecologically valuable line of trees - with bank or ditch | w~ 1175 70 or w~ 1175 191 or w~ 1175 70 191 |

~ is used for primary codes where any subset of the given primary code also applies

Where primary codes are used without ~ only that precise primary code applies

UKHab recording for metric purposes must resolve h2 and h2a to either h2a5 or h2a6.

Please note that secondary code numbers may change in the full publication of V2.0.

References

Defra (2022). Keepers of time – ancient and native woodland and trees policy in England. The government’s statement on ancient and native woodland and ancient and veteran trees. Available at <https://www.gov.uk/government/publications/keepers-of-time-ancient-and-native-woodland-and-trees-policy-in-england>

Natural England and other parties (2023) The Biodiversity Metric 4.0. JP039. Available at: [The Biodiversity Metric 4.0 - JP039 \(nepubprod.appspot.com\)](https://nepubprod.appspot.com)