

Nature in the Dales:

# 2020 vision

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The second Biodiversity Action Plan for the  
Yorkshire Dales National Park

## **Lowland Raised Bog Habitat Action Plan**

Yorkshire Dales Biodiversity Forum, 2011  
Amended Feb 2015

## LOWLAND RAISED BOG HABITAT ACTION PLAN

### DEFINITIONS

Lowland raised bogs are peatland ecosystems which develop primarily, but not exclusively, in lowland areas such as the head of estuaries, along river flood-plains and in topographic depressions. In such locations drainage may be impeded by a high groundwater table, or by low permeability substrata such as estuarine, glacial or lacustrine clays. The resultant waterlogging provides anaerobic conditions which slow down the decomposition of plant material which in turn leads to an accumulation of peat. Continued accrual of peat elevates the bog surface above regional groundwater levels to form a gently-curving dome, from which the term 'raised' bog is derived. The thickness of the peat mantle varies considerably but can exceed 12 metres.

In the UK, lowland raised bogs are a particular feature of cool, rather humid regions such as the north-west lowlands of England, the central and north-east lowlands of Scotland, Wales and Northern Ireland, but remnants also occur in some southern and eastern localities, for example Somerset, South Yorkshire and Fenland.

Lowland raised bogs may develop from a preceding phase of fen via successional processes or, if the climate is sufficiently wet, by peat formation directly onto a bare substrate, a process known as 'paludification'. Accumulation of peat separates the bog surface from the influence of groundwater, so that it becomes irrigated exclusively by precipitation. This type of ecosystem is known as an 'ombrotrophic' (or 'rain-fed') bog. Consequently, the surface of a 'natural' lowland raised bog is typically waterlogged, acidic and deficient in plant nutrients. This gives rise to a distinctive suite of vegetation types, which although low in overall diversity, support specialised plant assemblages dominated by a colourful range of mosses of the genus *Sphagnum*, as well as vascular plants adapted to waterlogged conditions such as the cotton grasses *Eriophorum* spp. Lowland raised bogs also support a number of higher plants which have become increasingly scarce in the lowlands including bog rosemary *Andromeda polifolia*, great sundew *Drosera anglica* and cranberry *Vaccinium oxycoccos*.

A number of plant communities defined by the National Vegetation Classification can be found on raised bogs. Plant communities that are typical of natural raised bogs include the bog pool communities M1 to M3 and M18 *Erica tetralix* - *Sphagnum papillosum* raised and blanket mire. In addition a number of communities, including M15 *Scirpus cespitosus* - *Erica tetralix* wet heath, M19 *Calluna vulgaris* - *Eriophorum vaginatum* blanket mire, M20 *Eriophorum vaginatum* blanket and raised mire, M25 *Molinia caerulea* - *Potentilla erecta* mire and W4 *Betula pubescens* - *Molinia caerulea* woodland, can be found on raised bogs which have been subject to some disturbance such as drainage or peat-cutting.

**STATUS IN YORKSHIRE DALES NATIONAL PARK 2011**

ESTIMATED AREA IN THE YORKSHIRE DALES NATIONAL PARK IN “GOOD CONDITION”

SSSI (Favourable, Unfavourable-recovering):	100%
Non-SSSI (Condition A):	0%
Total (SSSI Favourable, Unfavourable-recovering, Non-SSSI A):	0%

**UK & REGIONAL BIODIVERSITY TARGETS 2011**

<b>UK BAP Targets</b>	<b>Priority Actions for YDNP LBAP</b>
Maintain the extent of the existing UK resource of BAP habitat (i.e. primary and secondary raised bog resource) with no loss.	Yes
Rehabilitate degraded bog habitat still capable of natural regeneration (in targeted areas) to bring most of the primary and secondary resource into or approaching favourable condition by 2020 through appropriate management.	No
Restore Lowland Raised Bog immediately or via succession from fen on chosen areas of archaic peat to ensure a sustainable hydrological regime for adjacent extant habitat and to restore LRB to its former geographical range as part of a national series.	No
90% of the total market for soil improver and growing media to be peat free in the UK by 2010.	No

<b>Regional Biodiversity Targets</b>	<b>Priority Actions for YDNP LBAP</b>
Restore 100ha (target exceeded)	No

**NATURE IN THE DALES: 2020 VISION  
OBJECTIVES, ACTIONS, TARGETS & MILESTONES**

**RB1.1:** Complete survey of lowland raised bogs in Craven & South Lakeland by 2016.

**RB1.2:** Complete survey of lowland raised bogs in Craven, South Lakeland & Richmondshire by 2020.

**Actions & Targets**

<b>Actions</b>	<b>Main Delivery Mechanism</b>	<b>Lead Organisation</b>	<b>Indicator</b>
RB1.1: Complete survey of lowland raised bogs in Craven & South Lakeland by 2016.	Habitat Survey	YDNPA	Area of habitat in “Good Condition”
RB1.2: Complete survey of lowland raised bogs in Craven, South Lakeland & Richmondshire by 2020.	Habitat Survey	YDNPA	Area of habitat in “Good Condition”

## Nature in the Dales: 2020 Vision

### Milestones

Actions	Target	When?
RB1.1: Complete survey of lowland raised bogs in Craven & South Lakeland by 2016.	Report	2016
RB1.2: Complete survey of lowland raised bogs in Craven, South Lakeland & Richmondshire by 2020.	Report	2020

*Nature in the Dales: 2020 Vision* was written and co-ordinated by Tim Thom, Ian Court, Frances Graham & Hannah Fawcett of the Yorkshire Dales National Park Authority in 2011, following consultation. The production of the plan was steered, advised and supported by the Yorkshire Dales Biodiversity Forum who will be responsible for ensuring that the actions and targets in *Nature in the Dales: 2020 Vision* are achieved. Minor revisions made Feb 2015.

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