

Nature in the Dales:

2020 vision

The second Biodiversity Action Plan for the
Yorkshire Dales National Park

Bryophyte Species Action Plans

Yorkshire Dales Biodiversity Forum, 2011
Amended Feb 2015

BRYOPHYTE SPECIES ACTION PLANS

NOWELL'S LIMESTONE MOSS *Zygodon gracilis* SPECIES ACTION PLAN

TRENDS & STATUS 2011

Population in Britain	100% of occupied hectads in Great Britain occur within YDNP
Population in the YDNP	7 historical localities within YDNP, most recent record 2002/3
Conservation Status in UK	Endangered (Threatened Bryophyte database)
Conservation Status in Europe	Unknown
Current national population trend	Stable following decline
Current YDNP trend	Stable

UK BIODIVERSITY TARGETS 2011

UK BAP Targets	Priority Actions for YDNP LBAP
Maintain populations at current sites through appropriate habitat management.	Yes
Pollution/Nitrogenous enrichment - reduce fertiliser use, excessive stock feeding and muck spreading adjacent to occupied walls.	Yes
Investigate potential to restore sexual reproductive success through translocation.	No – although co-operation with this process will take place if approached

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

Objectives

NLM1.1: Maintain populations at current sites through encouraging appropriate habitat management by 2016.

NLM1.2: Continue with survey and monitoring programme by 2016.

Actions & Targets

Actions	Main Delivery Mechanism	Lead Organisation	Indicator
NLM1.1: Encourage land managers at extant sites to manage habitat appropriately, given the species vulnerability to disturbance, nutrient enrichment and pollution through ordinary management operations.	Agri-environment schemes	YDNPA	% of LBAP species that are stable or increasing
NLM1.2: Continue survey and monitoring programme.	BBS and YNU field meetings	YNU/Wharfedale Naturalists Society	

Milestones

Actions	Target	When?
NLM1.1: Encourage land managers at extant sites to manage habitat appropriately, given the species vulnerability to disturbance, nutrient enrichment and pollution through ordinary management operations.	Stable population	Ongoing
NLM1.2: Continue survey and monitoring programme	Devise a survey & monitoring programme	2016

OTHER BRYOPHYTE SPECIES ACTION PLANS

TRENDS & STATUS 2011

INCURVED FEATHER-MOSS *Homomallium incurvatum*

Population in Britain	22% of occupied hectads in Great Britain occur within YDNP
Population in the YDNP	Eight hectads within YDNP, most recent record 2006
Conservation Status in UK	Critically endangered (Threatened Bryophyte database)
Conservation Status in Europe	Unknown
Current national population trend	Stable following decline
Current YDNP trend	Stable

LONG-LEAVED FLAPWORT *Jungermannia leiantha*

Population in Britain	18% of occupied hectads in Great Britain occur within YDNP
Population in the YDNP	One historical locality within YDNP, most recent record 1966
Conservation Status in UK	Critically endangered (Threatened Bryophyte database)
Conservation Status in Europe	Unknown
Current national population trend	Declining
Current YDNP trend	Unknown

SLENDER THREAD-MOSS *Orthodontium gracile*

Population in Britain	3.5% of occupied hectads in Great Britain occur within YDNP
Population in the YDNP	One historical locality within YDNP, most recent record 1999
Conservation Status in UK	Vulnerable (Threatened Bryophyte database)
Conservation Status in Europe	Unknown
Current national population trend	Declining
Current YDNP trend	Unknown

YORKSHIRE FEATHER-MOSS *Thamnobryum cataractarum*

Population in Britain	100% of occupied hectads in Great Britain occur within YDNP
Population in the YDNP	One stretch of river within YDNP, most recent official record 1992
Conservation Status in UK	Vulnerable (Threatened Bryophyte database)
Conservation Status in Europe	Unknown
Current national population trend	Stable
Current YDNP trend	Stable

UK BIODIVERSITY TARGETS 2011

UK BAP Targets	Priority Actions for YDNP LBAP
INCURVED FEATHER-MOSS: Follow up on 2006 baseline survey, and assess any changes (and therefore need for intervention), continue the targeted survey of selected historic sites.	Yes
INCURVED FEATHER-MOSS: Establish an ex situ collection, and research the necessary reintroduction techniques.	No
LONG-LEAVED FLAPWORT: Systematic survey of historic sites.	Yes
LONG-LEAVED FLAPWORT: Monitor site condition every 3 years at extant Scottish site and ensure appropriate management is in place.	No
LONG-LEAVED FLAPWORT: Establish ex situ stocks of this species and research reintroduction protocols with the intention of re-establishing this species at some of its former sites.	No – but YDNP will be involved if appropriate.
LONG-LEAVED FLAPWORT: DNA bar-coding/genetic screening of extant populations in order to better understand the status of the UK populations.	No – but YDNP will be involved if appropriate.
SLENDER THREAD-MOSS: Survey known sites at least once every 10 years, and continue to target potential/historic sites, ensure that all populations found are healthy with good habitat management.	Yes
SLENDER THREAD-MOSS: Reintroduce the species to those sites from which it has been lost (as compared to baseline in success criterion) using an established ex situ source.	No
SLENDER THREAD-MOSS: Further investigate the biology of the species using an established ex situ source.	No
YORKSHIRE FEATHER-MOSS: Annual habitat condition monitoring at its single known site, including water quality monitoring, combined with population monitoring every 3-6 years to ensure that the habitat management continues to be favourable for the species and that the population levels are stable.	Yes
YORKSHIRE FEATHER-MOSS: Continuing ex situ cultivation, bulking up of material as an insurance against extinction in the wild, and investigation of reintroduction techniques.	No
YORKSHIRE FEATHER-MOSS: Further research to clarify this plant's relationships to other species, such as the Macaronesian <i>T. fernandesii</i> . [See Olsson <i>et al.</i> , 2009].	No

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

Objective

OM1: To establish a survey and monitoring programme by 2013.

Actions & Targets

Actions	Main Delivery Mechanism	Lead Organisation	Indicator
OM1.1: Continue surveying historic sites in YDNP.	BBS and YNU field meetings	YNU / Wharfedale Naturalists Society	% of LBAP species that are stable or increasing
OM1.2: Continue trend monitoring programme	Report	Biodiversity Forum	

Milestones

Actions	Target	When?
OM1.1: Continue surveying historic sites in YDNP.	Report	2016
OM1.2: Continue trend monitoring programme	Report	2016

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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