

West Penwith Habitat Surveys: Trendrine Hill (part) (survey area 45 (part) – 2021) Natural England

First published June 2022

Natural England Research Report NERR114

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ISBN: 978-1-78354-932-0

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Project details

This report should be cited as:

BEARD, M.G. 2022. West Penwith Habitat Surveys: Trendrine Hill (part) (survey area 45 (part) – 2021). Natural England.

Natural England Project manager

Mark Beard

Keywords

Penwith, SSSI, survey, NVC, habitat

Further information

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Trendrine Hill (part) (Survey Area 45 (part) – 2021)

Vegetation survey & Condition Assessment:	Mark Beard
Report compiled by:	Mark Beard
Date surveyed:	24/09/2021

1. General Information

1.1 Location

Site name / No.	Trendrine Hill (part) / Site 45 (part)
County	Cornwall
Parish	Zennor
Central OS Grid Ref	SW47513934
Natural England Area Team	Devon, Cornwall & Isles of Scilly
National Character Area	West Penwith (No. 156)

1.2 Summary description

Area	0.63 ha
Altitude	140-160m AOD
Aspect	moderate slope, northerly
Drainage	Predominantly dry

Survey area 45 Trendrine Hill and Beagletodn Downs was originally surveyed in 2013 by Hewins Ecology (commissioned by Natural England). That survey covered an extent of some 91.4 ha, but excluded a section of land at the north western edge of Trendrine Hill for reasons unknown. This section of land is delineated by linear features on Ordnance Survey data but in reality forms part of a continuous management unit with the remainder of Trendrine Hill. This omission in the survey data came to light in 2021 and field survey was undertaken 24 September 2021 to complement the 2013 survey. The survey site is effectively open to Trendrine Hill on the southern and eastern sides (with defunct field boundaries), has a fenced ownership boundary along the western side and is fenced against the public highway (B3306) along the northern side.

1.3 Access

Access is possible via a field gate off the public highway to the immediate east. A small proportion of the survey site is visible from the public highway, but is otherwise obscured by scrub/trees.

1.4 Tenure

The survey site is privately owned and managed as part of a local farm. The survey was carried out with the permission of the owner/occupier.

1.5 Survey methodology and season

The site was surveyed by a 'walk-over' survey during which observations of the habitat present were made. For each distinct stand of vegetation observed a species list was compiled with an associated estimate of frequency based upon the DAFOR-scale and the most likely vegetation community type of the National Vegetation Classification (Rodwell, et. al., Volumes 1 and 3, 1991/1992) was assigned. This community assignment was implied, based upon a working knowledge of the NVC by the surveyor, and is not based upon an analysis of quadrat data. As such the full NVC methodology has not been applied. Nevertheless, the experience of the surveyor in the field is considered sufficient for the implied NVC communities to be reliable for the purposes of this survey. Vegetation within the survey site could be compared to that in adjacent parts of Survey Site 45, surveyed in 2013 using standard NVC methodology; reported in *West Penwith Habitat Surveys: Trendrine Hill and Beagletodn Downs (survey area 45 – 2013)* Hewins Ecology, Groome, G., 2013. This allowed the surveyor to compare their implied community assignment to previous assignment of comparable vegetation using full NVC methodology in order to add further confidence to the assignment of the NVC communities implied. Owing to the methodology applied it was not possible to assign to sub-communities to all stands, though where considered possible this was done.

2. Biological description

2.1 Habitats

The survey site supports an area of acid grassland, bracken and very small pockets of blackthorn scrub. Each habitat is discussed in turn below.

2.1.1 Dry lowland acid grassland

U4b (*Festuca ovina*-*Agrostis capillaris*-*Galium saxatile* grassland, *Holcus lanatus*-*Trifolium repens* sub-community)

These stands of acid grassland occurred in close juxtaposition to stands of bracken under-scrub. Mapping the boundaries between grassland and bracken under-scrub in the field proved difficult but has been assisted by the use of recent aerial photography and it to some extent indicative rather than precise. The grassland was characterised by abundant common bent *Agrostis capillaris*, Yorkshire fog *Holcus lanatus* and cock's-foot *Dactylis glomerata*. Present throughout were tormentil *Potentilla erecta*, ribwort plantain *Plantago lanceolata*, white clover *Trifolium repens*, greater bird's-foot-trefoil *Lotus pedunculatus* and common dog-violet *Viola riviniana*. Common knapweed *Centaurea nigra* was locally frequent on the lowest (northerly) slopes. Narrow-leaved hawkweed *Hieracium umbellatum* was also observed at low frequency.

The stands of U4b were rather rank in structure with an atypically high proportion of *D. glomerata* and apparent absence of *Galium saxatile* compared with the description given in the published NVC. The grassland showed some affinities to mesotrophic

conditions, but the presence of *A. capillaris*, *H. lanatus*, *P. erecta* and *T. repens* all suggest a stronger affinity to U4b acid grassland.

The stands are intermittent, being interrupted by and in close proximity to stands of W25 underscrub with which there is some localised transition.



Figure 1 Plate 1 – acid grassland with bracken, typical of the survey site



Figure 2 Plate 2 – looking north toward Trendrine; the localised patch of *Centaurea nigra* is on the lower slope in this photograph

2.1.2 Scrub and underscrub

W22 *Prunus spinosa* – *Rubus fruticosus* scrub

Three very small stands were mapped. These were species poor, dominated by *P. spinosa*. Given that this is not a priority community type for SSSI selection, no species-list was recorded.

W25 *Pteridium aquilinum* - *Rubus fruticosus* underscrub

The remainder of the survey site was occupied by stands of W25 underscrub, forming intimate mosaics with U4b. In addition to bracken, stands were 'grassy' in nature with *H. lanatus* and *D. glomerata* and with tracks running throughout likely to be created by grazing livestock (cattle) and/or wild fauna (deer, badgers).

2.2 Species

No rare, scarce or threatened species were noted during the survey.

3. Condition Assessments

Note: This assessment is based on generic targets and the condition may be assessed differently once site-specific targets are developed.

3.1 Lowland dry acid grassland

Due to the small scale of the U4b stands the condition assessment was made from attributes assessed at the whole-stand level rather than using any number of randomly selected stops.

This assessment shows that the acid grassland vegetation at this survey site is currently in **unfavourable** condition assessed against the generic targets for lowland dry acid grassland (English Nature 2000 / JNCC, 2004). The acid grassland habitat failed against the following generic targets:

- Frequency of positive indicator species (too few);
- % cover of coarse grasses (too high, *Dactylis glomerata*).

However, all other targets were met.

It is difficult to ascertain the trend of the condition of acid grassland at this survey site in the absence of previous data. However, as there appears to be some active management at the survey site (cattle grazing as part of the wider management of Trendrine Hill) and there were no other apparent indications of immediate or rapid decline a trend category of **no change** would seem appropriate. The condition of the acid grassland in the larger Survey Area 45 was not assessed as part of the 2013 survey.

As no other priority habitats were recorded at the survey site, no other habitat condition assessments are necessary.

Table 1 Summary of habitats and vegetation communities

Site 45 (part) – Trendrine Hill (part) (2021)				
Habitat	NVC communities	Area (ha)	Priority Habitat area (ha)	CA category
Acid grassland	U4b	0.13	Lowland dry acid grassland	UFNC
Underscrub	W25	0.46	n/a	n/a
Scrub	W22	0.04	n/a	n/a
Condition assessment reporting categories: Favourable (F), Unfavourable Recovering (UFR), Unfavourable No Change (UFNC), Unfavourable Declining (UFD)				

4. References

Groome, G. (2013) West Penwith Habitat Surveys: Trendrine Hill and Beagletodn Downs (survey area 45 – 2013). Hewins Ecology.

JNCC (2004) Common Standards Monitoring Guidance for Lowland Grassland, Version February 2004. JNCC, Peterborough.

Robertson, H.J. & Jefferson, R.G. (2000) Monitoring the condition of lowland grassland SSSIs; Part 1 – English Nature's rapid assessment method. English Nature, Peterborough.

Rodwell J.S. (ed). (1991) British Plant Communities Volume 1. Woodlands and Scrub. Cambridge University Press, Cambridge.

Rodwell J.S. (ed). (1992) British Plant Communities Volume 3. Grasslands. Cambridge University Press, Cambridge.

Annexes

Annex 1 Species lists for U4b, W22, and W25 communities

DAFOR ratings:

D = dominant; A = Abundant; F = Frequent; O = Occasional; R = Rare L = Locally
(frequent, abundant, dominant)

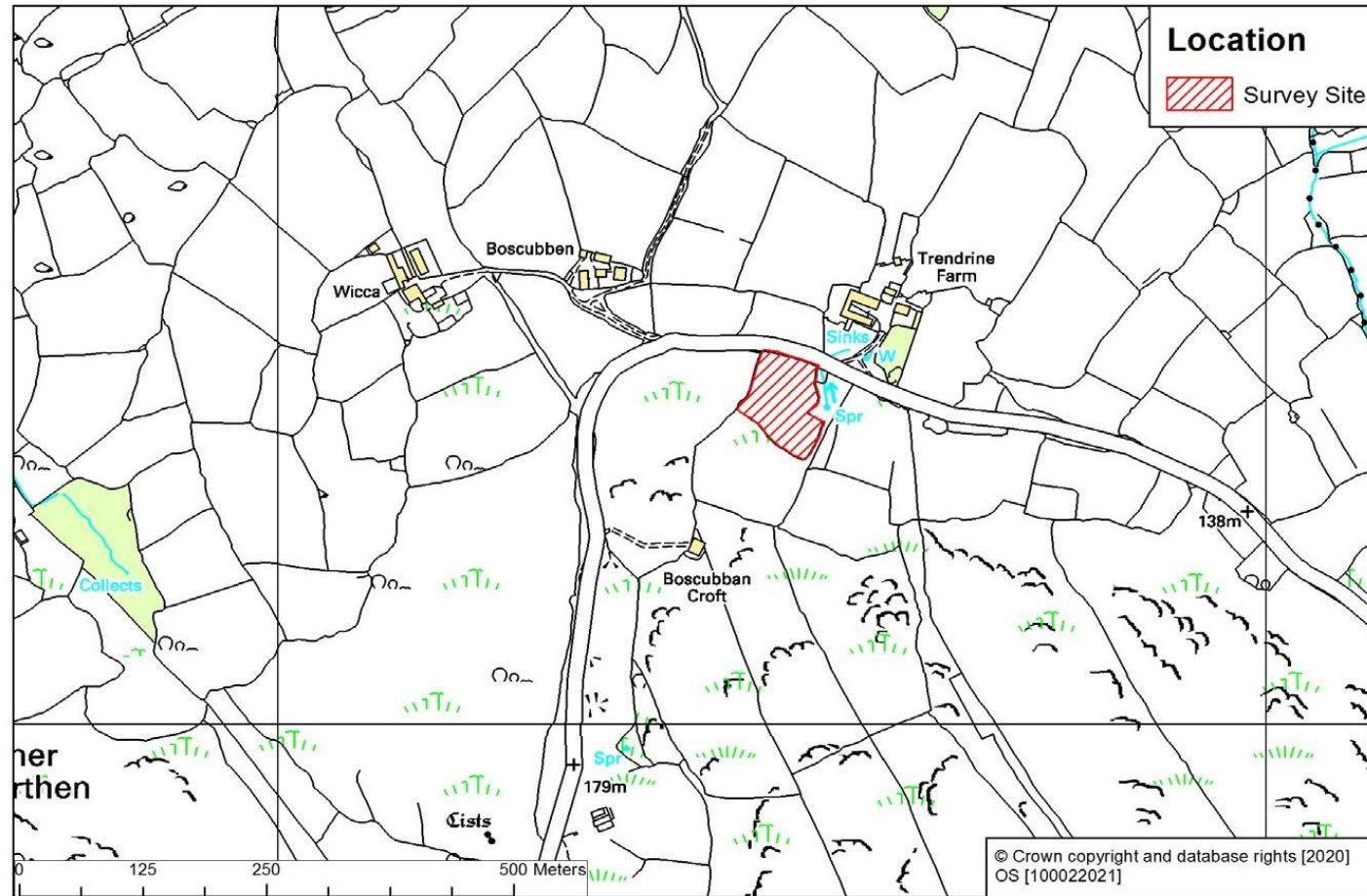
E = Edge (i.e. a species recorded from the margins of the mapped habitat/community)

		Community / subcommunity		
Scientific name	Common name	U4b	W22	W25
<i>Agrostis capillaris</i>	Common bent	A		
<i>Centaurea nigra</i>	Common knapweed	LF		
<i>Chamerion angustifolium</i>	Rosebay willowherb			R
<i>Dactylis glomerata</i>	Cock's-foot	A		O
<i>Digitalis purpurea</i>	Foxglove	R		R
<i>Hieracium umbellatum</i>	Narrow-leaved hawkweed	R		
<i>Holcus lanatus</i>	Yorkshire fog	A		O
<i>Lotus pedunculatus</i>	Greater bird's-foot-trefoil	O		
<i>Plantago lanceolata</i>	Ribwort plantain	O		
<i>Potentilla erecta</i>	Tormentil	O		
<i>Prunus spinosa</i>	Blackthorn		D	
<i>Pteridium aquilinum</i>	Bracken	O		A
<i>Rubus fruticosus</i> agg.	Bramble			F
<i>Trifolium repens</i>	White clover	O		
<i>Viola riviniana</i>	Common dog-violet	O		

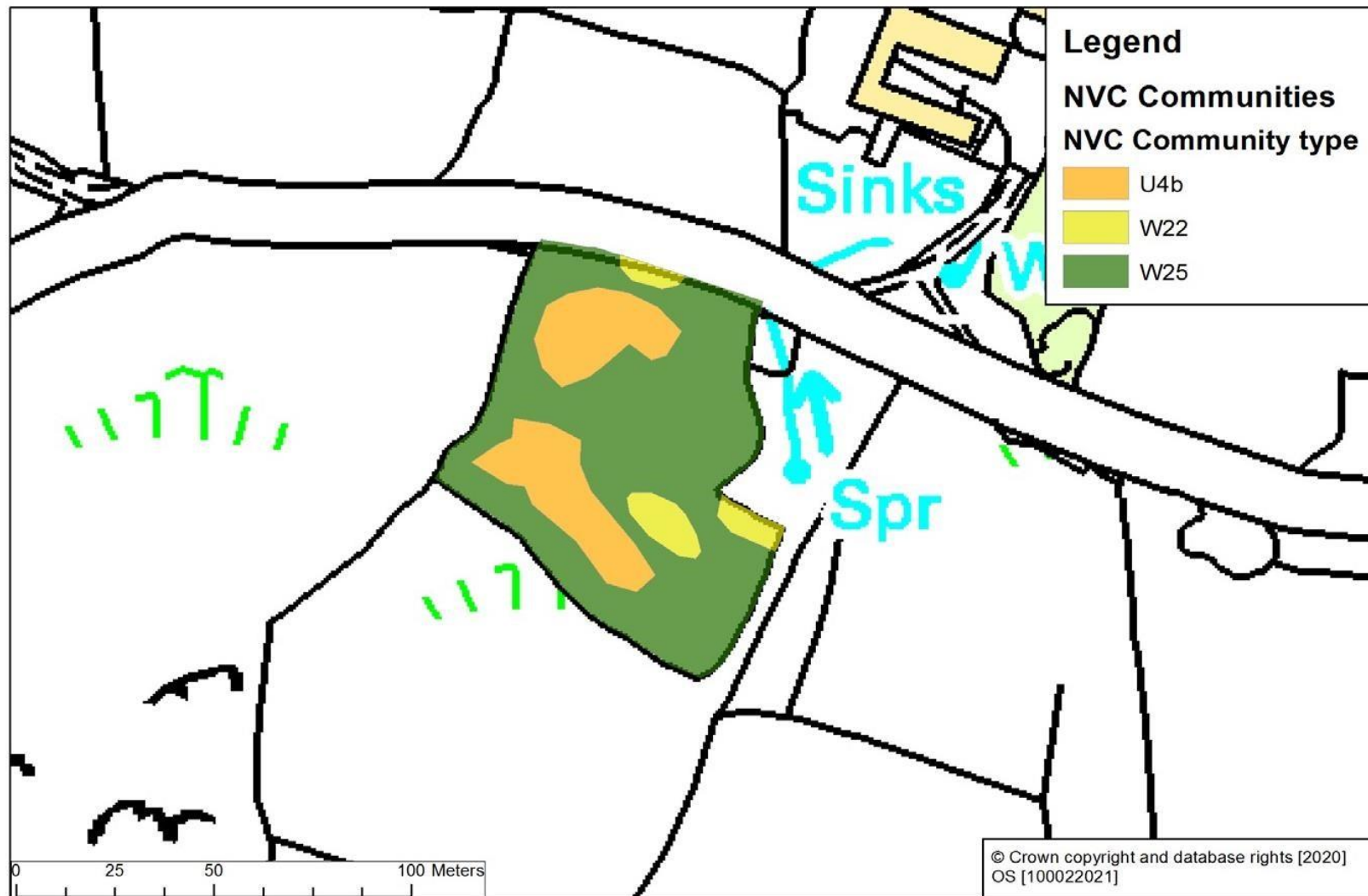
Annex 2 Lowland acid grassland (U4b) – whole stand condition assessment

Attribute (Mandatory only)	Target	Field observation	Assessment
Structure & composition			
Dwarf-shrubs	< 25% if grassland is the conservation aim rather than heathland	No dwarf-shrubs within grassland stands	Pass
Positive indicators			
Frequency of positive indicator species	At least 2 species/taxa at least frequent plus at least 2 occasional	<i>Potentilla erecta</i> O <i>Viola riviniana</i> O	Fail
Negative indicators			
Sward composition: bracken <i>Pteridium aquilinum</i>	No more than 20% bracken cover	< 20% bracken cover within grassland stands (excluding W25 stands and transitions)	Pass
Sward composition: weeds	Weeds no more than occasional or no more than 5% cover	None	Pass
Sward composition: coarse grasses (e.g. <i>Dactylis glomerata</i> ; do not apply <i>Holcus lanatus</i> to stands of U4b)	Coarse grasses no more than 10% cover	<i>Dactylis glomerata</i> > 10% cover	Fail
Sward composition: trees and scrub	No more than 5% cover	No trees or scrub within mapped grassland stands	Pass
Sward composition: Rhododendron	Rhododendron <1% cover	0%	Pass

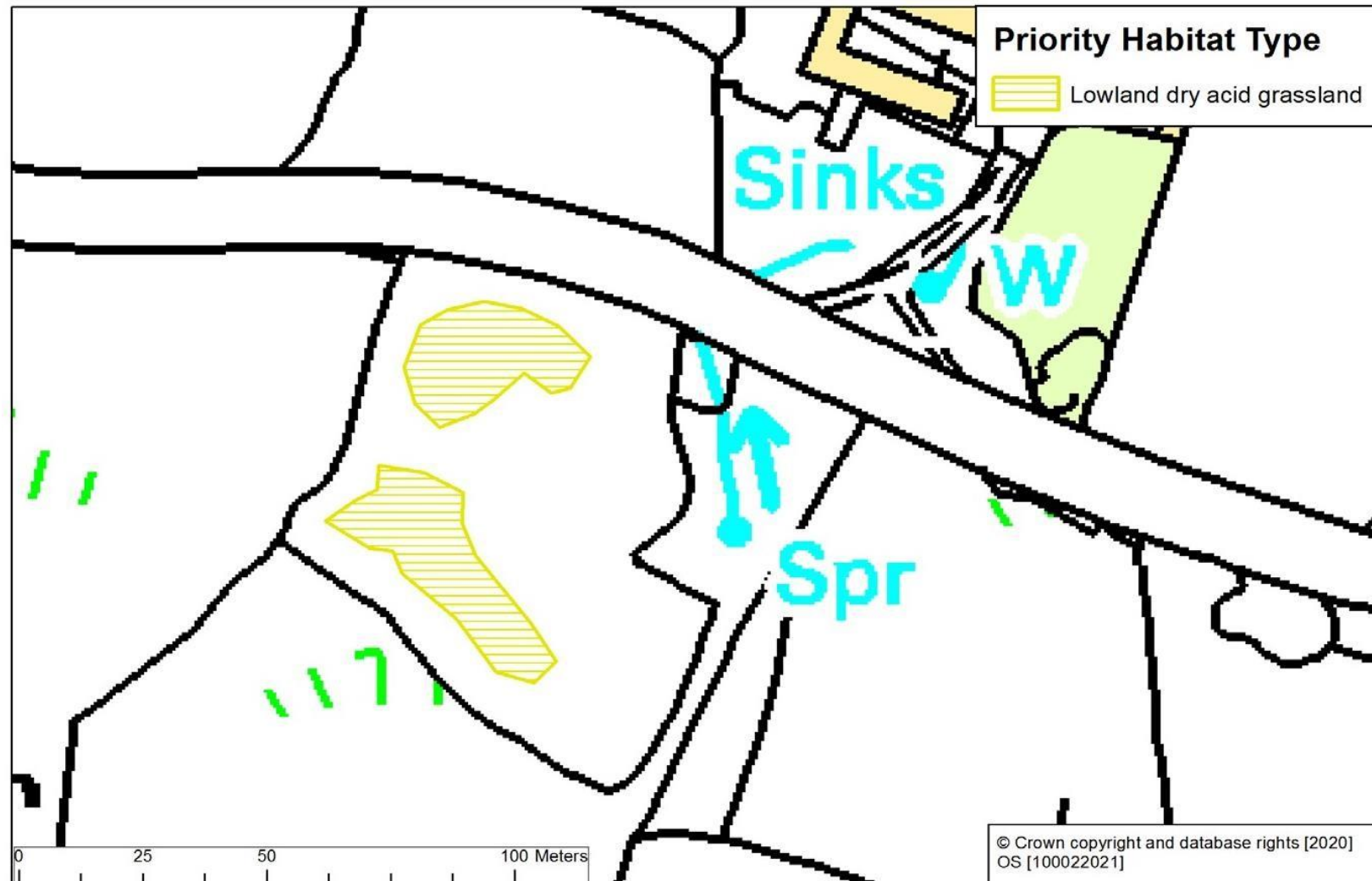
Annex 3 Location of survey site



Annex 4 NVC/vegetation communities



Annex 5 Priority habitats



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ISBN 978-1-78354-932-0

Catalogue code: NERR114

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