

West Penwith Habitat Surveys: Conquer Downs to Lady Downs (part) (survey area 48 (part) – 2022)

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Mark Beard



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Natural England Project manager

Mark Beard

Author

Mark Beard

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Further information

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West Penwith Habitat Surveys: Conquer Downs to Lady Downs (part) (survey area 48 (part) – 2022)

Vegetation survey:	Mark Beard
Report compiled by:	Mark Beard
Date surveyed:	04/04/2022

1 General Information

1.1 Location

Site name/ No.	Conquer Downs to Lady Downs (part) / Site 48 (part)
County	Cornwall
Parish	Madron / Towednack
Central OS Grid Ref	SW 4732 3580 / SW 4733 3592 / SW 4751 3592
Natural England Area Team	Devon, Cornwall & Isles of Scilly
National Character Area	West Penwith (No. 156)

1.2 Summary description

Area	1.91 ha
Altitude	205 - 225m A.O.D.
Aspect	level or gentle slope
Drainage	Predominantly dry

Survey area 48 Conquer Downs to Lady Downs was originally surveyed in 2013 by Hewins Ecology (commissioned by Natural England). That survey covered an extent of some 16.41 ha but omitted three smaller but contiguous areas at Higher Conquer, Conquer Downs and a corridor of land between Middle and Lower Conquer, forming part of the same management/ecological unit. These smaller areas were surveyed in 2022 and are the subject of this report.

1.3 Access

Access to Higher Conquer is possible via a private access track running from Carnaquidden Farm. Access to Middle/Lower Conquer is possible via public rights of way from Woonsmith.

1.4 Tenure

The survey sites are all privately-owned and surveys were carried out with the permission of the landowners.

1.5 Survey methodology

The site was surveyed by a 'walk-over' survey during which observations of the habitats 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 (NVC) (Rodwell, et. al., Volume 1, 1991, Volume 2, 1991, Volume 3, 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.

2 Biological description

2.1 Habitats

The survey site supports areas of lowland heathland, semi-improved grassland and other mosaic habitats. Each habitat is discussed in turn below.

2.1.1 H4 *Ulex gallii* – *Agrostis curtisii* heath

Both the area of land south-east of Higher Conquer (adjacent to a shelter-belt of planted conifers) and the corridor of land from Lower Conquer running north-west alongside Conquer Downs were occupied by heathland vegetation. This heathland was characterised by *Ulex gallii*, *Erica cinerea*, *Calluna vulgaris*, *Agrostis curtisii* and *Molinia caerulea* and showed a strong affinity to H4 *Ulex gallii* – *Agrostis curtisii* heath. No sub-communities were assigned.

The land at Higher Conquer was also characterised by scattered conifer trees, apparently planted, and was stock-fenced; some invasive *Rosa rugosa* was present. Neither area of heath vegetation appeared grazed or subject to any other regular habitat management, though the rough access track to Middle Conquer appears well maintained (hardcore, not tarmac).



Plate 1 – area of H4 heath vegetation at Higher Conquer (looking south-east)



Plate 2 - area of H4 heath at corridor of land adjacent to Conquer Downs (looking north-west towards Middle Conquer)



Plate 3 - area of H4 heath at corridor of land adjacent to Conquer Downs (looking south-east towards Lower Conquer)

2.1.2 MG6 *Lolium perenne* - *Cynosurus cristatus* grassland

The southern section of the field at OS grid ref SW 4733 3592 (RLR parcel ref SW 4735 3190) is occupied by heathland as identified in the 2013 vegetation survey. The remainder of this field is occupied by semi-improved mesotrophic grassland characterised by *Lolium perenne*, *Holcus lanatus*, *Trifolium repens*, *Ranunculus repens*, *Taraxacum officinale* agg. and *Plantago lanceolata*. This suggests a strong affinity with MG6 *Lolium perenne* - *Cynosurus cristatus* grassland. The apparent absence of *C. cristatus* is atypical of the published NVC but may be explained by the time of year (early in the growing season) and the tightly grazed nature of the sward. This stand of grassland is surrounded on three sides by Cornish hedges but with no boundary between the area of heath vegetation occupying the southern end of the field, thus collectively forming a single management unit. The grassland sward was a low turf at the time of the survey, though no grazing animals were apparent.

2.1.3 Other semi-natural mosaics

A small area at the southern end of Conquer Downs (immediately east of Lower Conquer) is occupied by a mosaic of open semi-natural habitats. This land forms part of the larger Conquer Downs ecological/management unit, being separated only by the access track to the properties at Lower and Middle Conquer. At the time of the survey a larger section of Conquer Downs was fenced off by a temporary electric fence, apparently for equine grazing.

One stand of vegetation is characterised by *Juncus effusus*, *H. lanatus*, and *Rubus fruticosus* agg. This stand was difficult to assign to a single NVC community but showed some affinities with both W24 *Rubus fruticosus*-*Holcus lanatus* underscrub and MG10 *Holcus lanatus*-*Juncus effusus* rush-pasture and can be considered transitional between the two.

A second stand of vegetation at this location was characterised by *Ulex gallii* and *Molinia caerulea*. The presence of abundant *U. gallii* might suggest some affinity with a heathland community (e.g. H4 *Ulex gallii* – *Agrostis curtisii* heath, H8 *Calluna vulgaris* – *Ulex gallii* heath), but the lack of other indicative dwarf-shrubs such as *Calluna vulgaris* or *Erica cinerea* make such associations tenuous and instead this element of the vegetation is treated as a scrub community not represented in the published NVC. Such stands have been described in this way in previous vegetation surveys across Penwith Moors (Mol-Ug).

2.1.4 scrub and plantation

A small stand of *Salix cinerea* scrub was present at SW 4733 3580, whilst an area of conifer plantation with *Rhododendron ponticum* was present at SW 4728 3583, the latter forming the eastern end of a planted shelter-belt running south-east from Higher Conquer. No species lists of these habitats were deemed necessary.



Plate 4 – interface between heath vegetation and semi-natural grassland in field ref SW 4735 3190



Plate 5 - semi-natural grassland in field ref SW 4735 3190 (looking north-east)

2.2 Species

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

3 Condition Assessments

Due to the small size of habitat present and that the survey areas form part of a larger extent of semi-natural habitat previously surveyed, no condition assessment were deemed necessary.

Table 1 Summary of habitats and vegetation communities

Site 48 (part) – Conquer Downs to Lady Downs (part) (2022)				
Habitat	NVC communities	Area (ha)	Priority Habitat area (ha)	CA category
Semi-improved grassland	MG6	0.62	n/a	n/a
Heathland	H4	1.13	1.13	n/a
Open mosaics	W24 / MG10	0.05	n/a	n/a
	Mol-Ug	0.05	n/a	n/a
scrub	Salix scrub	0.02	n/a	n/a
plantation	conifer / Rhododendron	0.04	n/a	n/a

Condition assessment reporting categories:
Favourable (F), Unfavourable Recovering (UFR), Unfavourable No Change (UFNC), Unfavourable Declining (UFD)

4 References

Hewins, E. (2013) West Penwith Habitat Surveys: Conquer Downs to Lady Downs (survey area 48 – 2013). Hewins Ecology.

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

Rodwell J.S. (ed). (1991) British Plant Communities Volume 2. Mires and heaths. Cambridge University Press, Cambridge.

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

Appendices

Species lists for H4, U4b and other vegetation communities

DAFOR ratings:

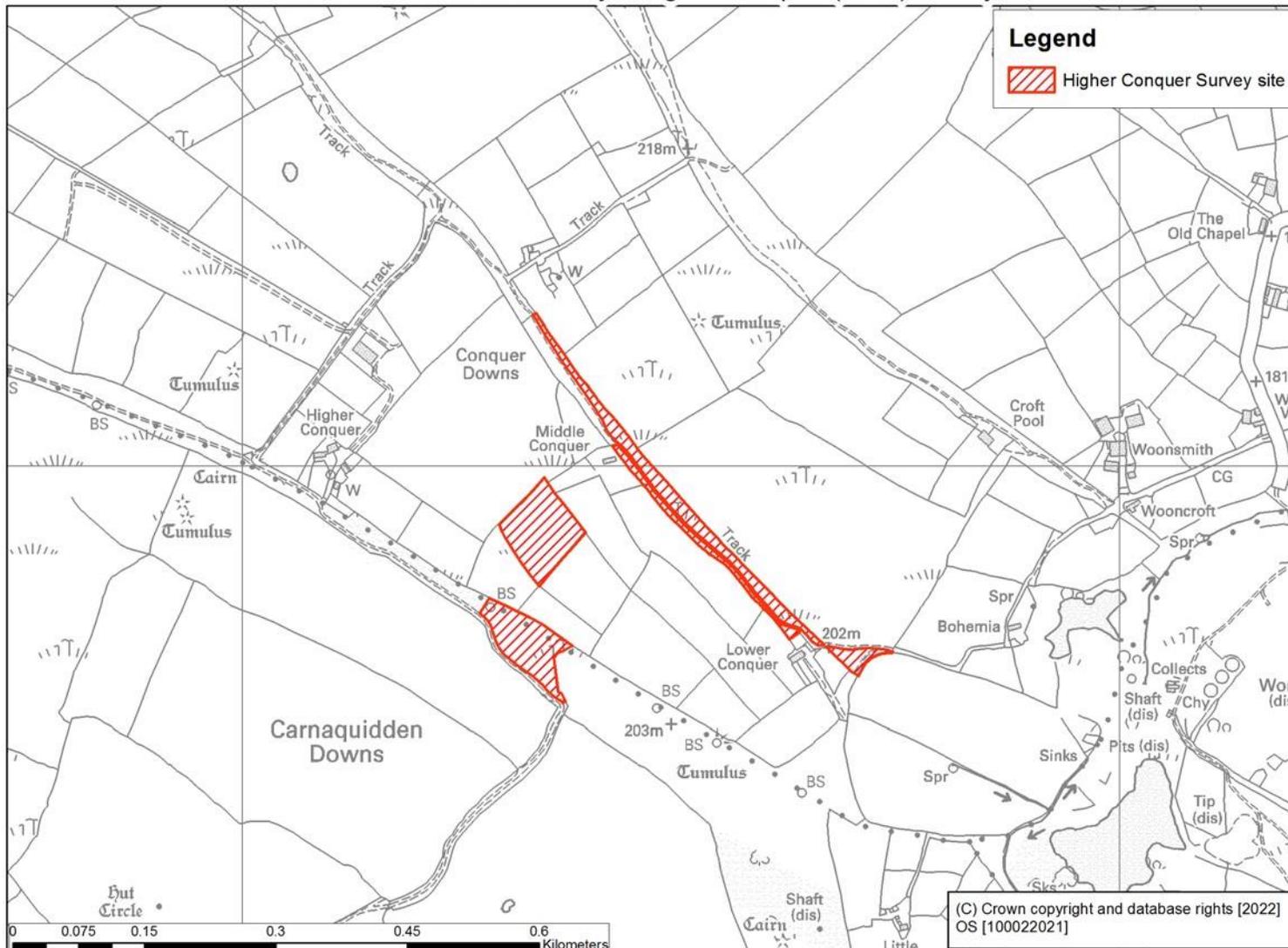
D = dominant; A = Abundant; F = Frequent; O = Occasional; R = Rare L = Locally (frequent, abundant, dominant)

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

Scientific name	Common name	Community / sub-community			
		H4	MG6	W24 / MG10	Mol-Ug
<i>Agrostis curtisii</i>	bristle bent	LF			
<i>Calluna vulgaris</i>	heather	A			
<i>Erica cinerea</i>	bell heather	A			
<i>Holcus lanatus</i>	Yorkshire-fog		A	A	
<i>Ilex aquifolium</i>	holly	E			
<i>Juncus effusus</i>	soft rush		O	A	
<i>Lolium perenne</i>	perennial rye-grass		A		
<i>Molinia caerulea</i>	purple moor-grass	A		F	A
<i>Pinus</i> spp.	pine	LF			
<i>Plantago lanceolata</i>	ribwort plantain		F		
<i>Ranunculus repens</i>	creeping buttercup		F		
<i>Rhododendron ponticum</i>	common rhododendron	R			
<i>Rosa rugosa</i>	Japanese rose	LF			
<i>Rubus fruticosus</i> agg.	bramble	O		A	
<i>Rumex obtusifolius</i>	broad-leaved dock		F		
<i>Taraxacum officinale</i> agg.	dandelion		F		
<i>Trifolium repens</i>	white clover		F		
<i>Ulex europaeus</i>	European gorse	E			
<i>Ulex gallii</i>	western gorse	A			A

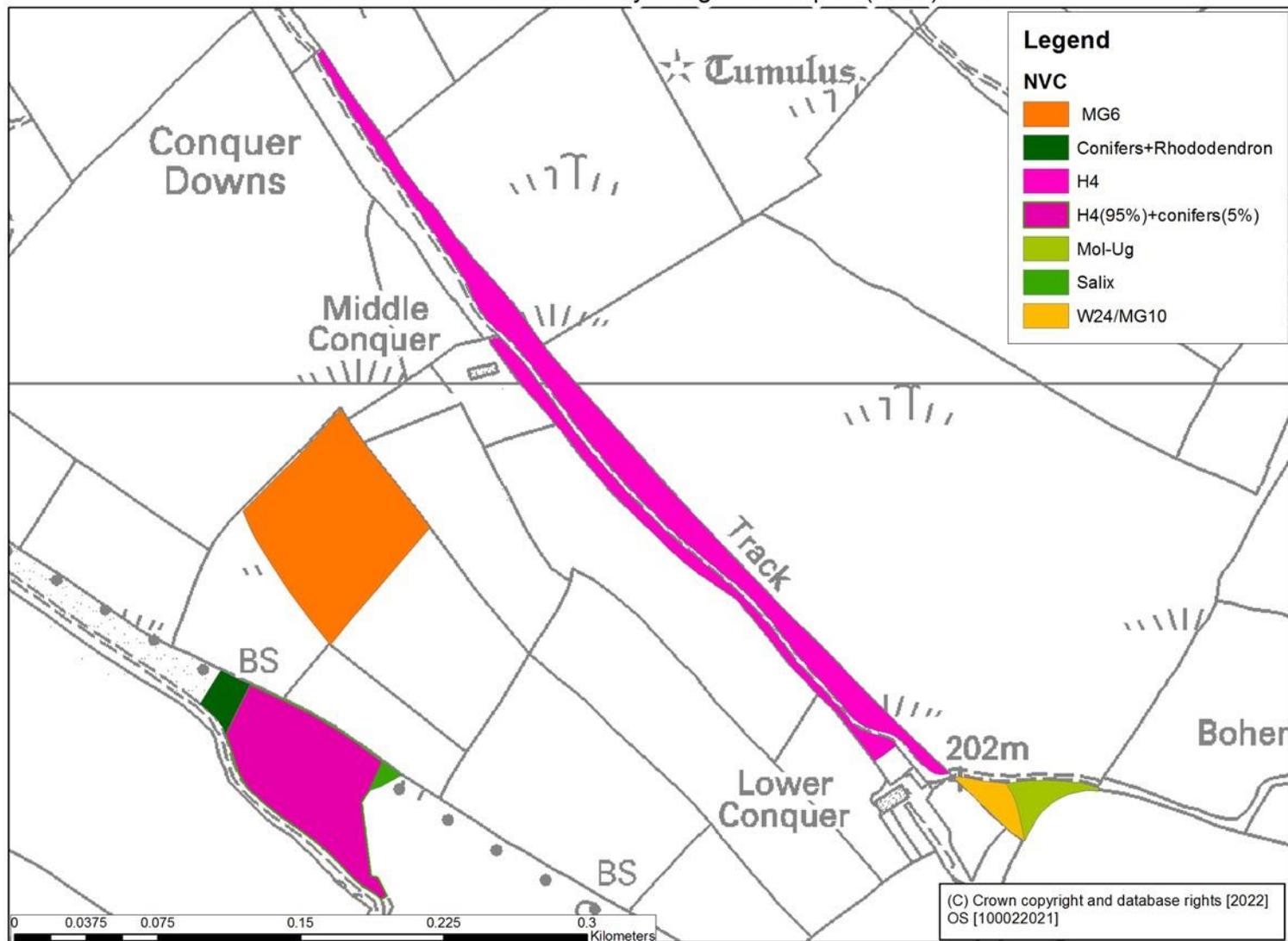
Map 1 Conquer Downs to Lady Downs (part) 2022 survey site

West Penwith Habitat Surveys: Higher Conquer (2022) Survey Site



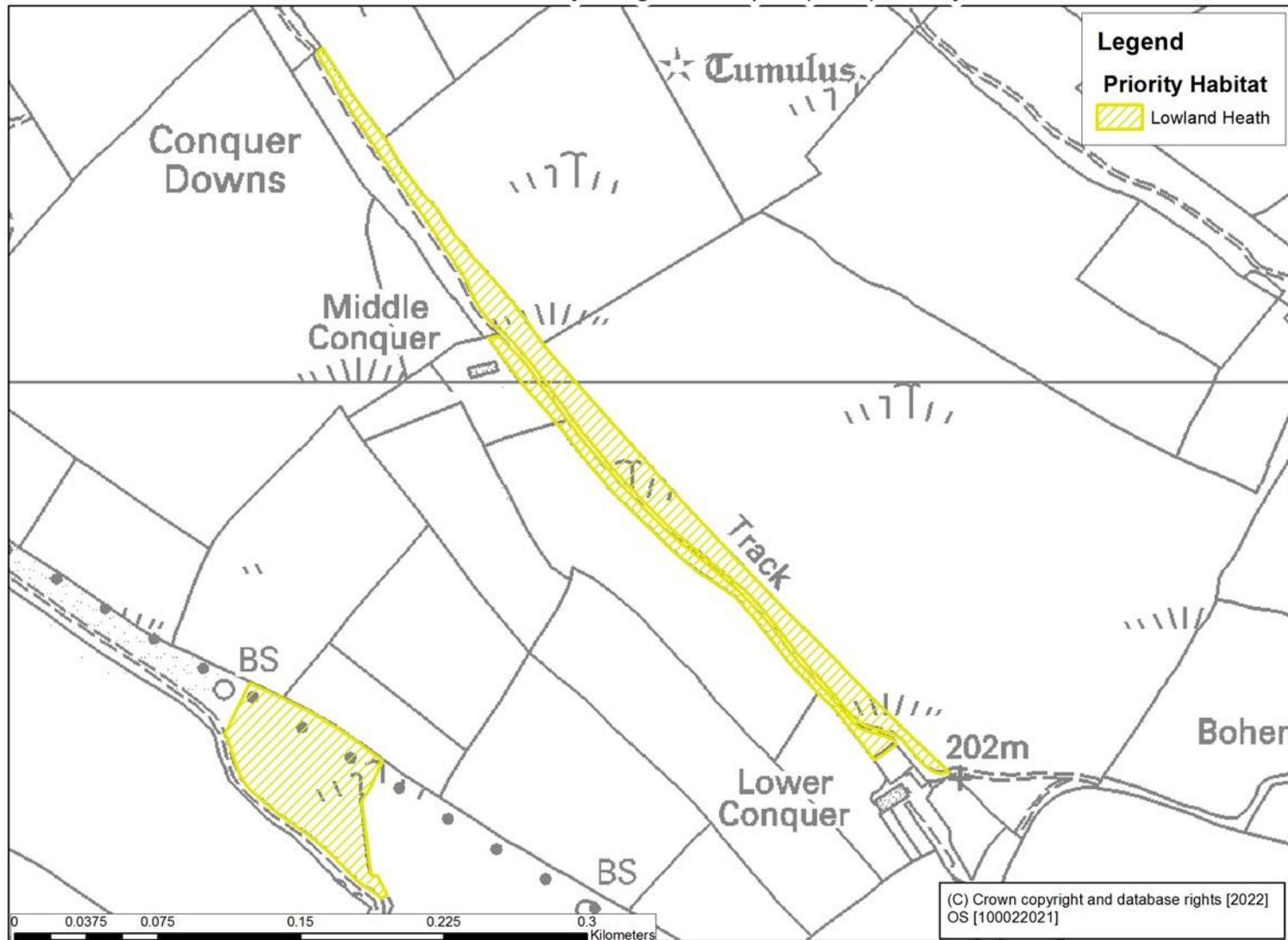
Map 2 Conquer Downs to Lady Downs (part) 2022 NVC

West Penwith Habitat Surveys: Higher Conquer (2022) NVC



Map 3 Conquer Downs to Lady Downs (part) 2022 priority habitats

West Penwith Habitat Surveys: Higher Conquer (2022) Priority Habitat



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